

2-21-2024

## More Than Ethics: Changing Approaches to Research in Human Biology

Agustín Fuentes  
*Princeton University*

Follow this and additional works at: [https://digitalcommons.wayne.edu/humbiol\\_preprints](https://digitalcommons.wayne.edu/humbiol_preprints)

---

### Recommended Citation

Fuentes, Agustín, "More Than Ethics: Changing Approaches to Research in Human Biology" (2024).  
*Human Biology Open Access Pre-Prints*. 207.  
[https://digitalcommons.wayne.edu/humbiol\\_preprints/207](https://digitalcommons.wayne.edu/humbiol_preprints/207)

This Article is brought to you for free and open access by the WSU Press at DigitalCommons@WayneState. It has been accepted for inclusion in Human Biology Open Access Pre-Prints by an authorized administrator of DigitalCommons@WayneState.

# More Than Ethics: Changing Approaches to Research in Human Biology

Agustín Fuentes<sup>\*1</sup>

---

<sup>1</sup>Princeton University

\*Correspondence to Agustín Fuentes, 123 Aaron Burr Hall, Princeton University, Princeton NJ 08554, email: afuentes2@princeton.edu

---

**Keywords:** Ethics, Human Biology, Genomics, anti-racist/anti-colonialist

“...first one has to agree that we need structural change. Not everybody is inclined to do so, but once you do, I think then you have to think about what’s the most useful way to go about it.”

—Leith Mullings (2021)

Work in biological anthropology and human biology that engages with, extracts, manipulates, analyzes and disseminates biological data from and associated with people requires serious ethical investment as central to method, theory, and practice. However, ethics is not enough. Moving beyond a call for better (or more) ethics there is a core need for anthropological, historical, anti-racist/anti-colonialist method and theory in dealing with human data (existing, newly collected, and future collections). But there are structures in the academy, historical, financial, hierarchical, discriminatory, that impede sincere and effective actions to make such changes. Encouragingly, calls for structural change, and some actions entailing it are underway. But individual efforts are not enough. Systemic profession-level processes need to be addressed.

Three things are incontrovertible when it comes to the study of human biology:

- 1) Human biology data are biopolitical
- 2) Human biology data can play central roles in powerful forms of oppression, marginalization, alterity, activism, resistance, assistance, understanding, and change
- 3) People are never reducible to, or fully described by, datasets

Work in biological anthropology and human biology that engages with, extracts, manipulates, analyzes, and disseminates biological data from and associated with people needs to take all three of these realities as central to method, theory, and practice. No small task. There are structures in the academy, historical, financial, hierarchical, discriminatory, that impede a sincere and effective engagement with these three key realities. Encouragingly, calls for structural change, and some actions entailing it are underway. But individual efforts are not

enough. Systemic profession-level processes need to change.

A decade ago, Trudy Turner pointed out that the complex, active, and long-term relationships biological anthropologists, and human biologists, have with the peoples they study presents “multiple ethical challenges, including individual and group consent for research projects” and noted that ideas about the actualization of that consent, about compensation, data sharing, biobanks, and large databases and collections will “generate continued discussion of ethics in human biology research” (Turner 2012). This has certainly been ongoing, but all too often that engagement and/or recognition of these facets is relegated to the categorical arena of research “ethics.” I suggest that this framing is insufficient.

Ethics are primarily seen as the collection of moral principles that (should/could) govern a person’s behavior and actions. The sense of what is “right” and what is “wrong.” In the arena of professional societies, such as the American Association of Biological Anthropologists and the Human Biology Association, *ethics* are often seen, per Trudy Turner, Jessica Wagner and Graciela Cabana’s key overview (2017), as “moral principles or a system of these,” or “moral principles, maxims, precepts or observations concerning these.” And such principles are articulated in a code of ethics or a code of conduct (e.g.

<https://physanth.org/documents/3/ethics.pdf> and

<https://www.humbio.org/resources/Documents/HBA-Code-of-Ethics-Final.pdf>).<sup>1</sup> However,

while these codes and principles are valuable, beneficial, and operational, their structure and content often reflect the common philosophical set of assumptions about ethics as a mode of *framing* practice. Despite some prescriptive details in most codes, the overall frame of *ethics* often remains ideal, theoretical and/or general, often missing or not connecting directly with specific current crises of praxis in the arena of human biology<sup>2</sup>. For example, most ethics statements/codes do not contain specific reference to, or more importantly discussion of, the roles of racism, colonialism, or related processes in relation to the structuring of projects or the specific detailing of the *rights* of people, and biological data, aside from asserting that consent is necessary, and that “rights” are important. There is usually the citing of United Nations declarations on the subject and some discussion on the right of refusal and data storage and security. Turner et al. (2017) outlines the issues with, and use of, such statements well, and notes the dynamics of, and need for, an “ethical literacy” in the context of contemporary needs and challenges in training, inclusion, collaboration, and data sharing. This ethical literacy, and its

application to research applications, and training, is at the heart of some of the positive changes in human biology.

It is heartening to see that issues related to the contents/intents of ethics statements/codes are at the forefront of many practitioners' minds (see also Radin 2018). The multiple 2021, 2022, and 2023 American Association of Biological Anthropologists (AABA) and Human Biology Association (HBA) conference symposia, workshops, and presentation titles in this arena are an effective indication that the members of these key professional organizations are taking these interests and foci seriously. Additionally, recent work in human biology and allied fields has moved beyond the *discussion* of ethics and effectively highlighted, and challenged, the racism, colonial legacies and bio-politicization of research dynamics seeking to enact change in the structures of, and for, research. In an excellent and 'must-read' article, McKerracher and Nuñez de la Mora (2022) outlined an anticolonial rather than a decolonial lens and laid out a series of "hacks" for decolonizing research, teaching, mentorship, and administration" in Human Biology. The core concepts, definitions, figures and tables in the article are all excellent and their outline of the "how" of doing anti-colonial human biology research from community-based participatory work to multiple ways of knowing and seeing, to power differentials in knowledge production and access, to the roles of reflections and positionalities is superb. The citations in the article are a key list for all interested in this arena. McKerracher and Nuñez de la Mora offer ways towards a "human biology in which we work with people on level ground, both to answer how and why questions about human bodies and behavior and to promote ethical, supportive, and socially just modes of knowledge production, access, and exchange." In one sense I could just direct all readers of this essay to the McKerracher and Nuñez de la Mora article and simply state: "read and do this." But as there is a little more that I'd like to add, I'll continue.

This discussion, and concomitant actions associated with it, has been prominent in the past 2–3 years, in genomics and aDNA studies (Avila-Arcos et al. 2021, Cortez et al. 2021, Fox and Hawks, 2019, Hudson et al. 2020, LeBaron von Baeyer et al. 2024, Wagner et al. 2020), in paleoanthropology (Athreya and Ackermann 2019, Porr and Matthews 2019), and, interestingly, in paleontology (Cisneros et al. 2022, Raja et al. 2022) and ecology (Trisos et al. 2021). There is also increased recognition of the systemic inequities that reproduce geo-political-economic asymmetries within the practice of research "science" which in turn opens the possibility for thinking, and acting, from both ethical and epistemological perspectives about the economic and

power differentials and imbalances of asymmetric relationships (recently discussed in relation to aDNA research issues, Argüelles et al. 2022, Yanez et al. 2023, see also Urassa et al. 2021). There is no doubt that attention to “more than just ethics” is currently a “thing” in human biology, and beyond, and the suggestions/directions laid out in ethics statements/codes and the current discourse amongst practitioners surely acts as a complement to, or influence on, method and theory. A good start, but not enough.

Biological Anthropology and Human Biology need substantially more than “better ethics” or more detailed regulatory ethical statements/codes (Mangola et al. 2022, McKerracher and Nuñez de la Mora 2022, Tsosie et al. 2021a-d). The structure, content and intent of basic training, theory and methodologies need to change substantially to achieve the quality of practice sought, the equity that is necessary in human biology related endeavors, and the more justice-striving, anti-racist and anti-colonialist practice that must be at the center of all contemporary work with human populations<sup>3</sup>. Some of this is indeed going on in individual labs, training programs, and research endeavors at the current moment (e.g. Mangola et al. 2022, the Summer internship for Indigenous peoples in Genomics (SING) <https://www.singconsortium.org/>) But it is not yet systemically realized and endemic to the field.

Before going any further in explanation of some of the elements I think can lead us to better change and modify praxis, let me offer one idea as to how an aspect of the “more than ethics” approach can be implemented. Obviously much of what I write and offer in this brief essay is derived, in part, from my training and development as a scholar and my experiences undertaking field/lab research related to biological anthropology, human biology and related fields. However, the actual bulk of the information, perspectives, understanding, and especially the insight, I am relating does not come from me. This essay’s content is the result of my interactions with, and learning from, other scholars, collaborators and colleagues who shape the interface with theory, method and practice that I am immersed in. This essay is not simply a set of *my* thoughts or views. That is, I cannot claim to have generated this perspective. What I offer here is the result of deep reading and listening to a specific set of scholars and being influenced by countless others. The thoughts and the perspective I offer here are the product of collaboration not individual achievement. Recognizing that, and making it part of the presentation, is one of the facets of research practice that should change. Traditionally, recognition of influences and the structuring of one’s thoughts is done via citations. I do endeavor to strategically deploy

citations in this brief essay specifically with the aim of recognition and dissemination of the work of those who are structuring my thoughts on this matter. But not all learning comes from published materials, nor is all insight easily citable. It is common to offer acknowledgments at the end of a paper as a nod to the influences on the author(s). But acknowledgments are not required and there is rarely a standard format for them, unlike the recent trend of requiring explicit statements about funding and institutional review certification in peer-reviewed published works. I suggest that such influences and structuring elements of the work should be recognized in some explicit format in the products we disseminate, as part of our practice (see also Mangola et al. 2022 and McKerracher and Nuñez de la Mora's (2022) section on reflections and positionalities). It should be clear who we are drawing on, even those that we do not cite explicitly. Maybe acknowledgments can go up front as part of the text, not hidden in the back or an endnote.

Here are mine: The immediate impetus for this essay derives from my role as a discussant on the AABA 2021 session entitled "Ethics and Best practices of studying contemporary human populations" organized by Mayowa T. Adegboyega and Xinjun Zhang. As discussant I was privileged to read and listen to an amazing line up of scholars thinking with and about these issues. They were: Maria Avila-Arcos, Katrina Claw, Michael "Doc" Edge, Tina Lasisi, Sean Tallman, Ripan Malhi, Robin Nelson, PJ Perry, Rick Smith, Jennifer Wagner, and Taiye Winful. My interactions and exchanges with the following scholars also directly influenced my understanding of these topics and shaped my ability to write this essay: Susan Anton, Samantha Archer, Juan Manuel Argüelles, Rebecca Ackermann, Sheela Athreya, Michele Bezanson, Deborah Bolnick, Graciela Cabana, Tracie Canada, Chelsea Carter, Kate Clancy, Noah Collins, Amanda Cortez, Elizabeth DiGiangi, L. Zachary DuBois, Holly Dunsworth, Keolu Fox, Katie Hinde, Rena Lederman, Justin Lund, Jim McKenna, Leith Mullings, Maria Nieves-Colon, Erin Riley, Dorothy Roberts, Carolyn Rouse, Julianne Rutherford, Kim Tallbear, Zaneta Thayer, Trudy Turner, Jada Benn Torres, Gabriel Torres Colon, Francisco Vergara-Silva, Kyle Powys Whyte, and Bernardo Yáñez. And I am sure I've unintentionally missed a few names here. I encourage those reading this essay to read the work of these scholars, and to cite and share it. This is how knowledge is made. It is rarely (or never) a single scholar "coming up" with insight on their own. As a senior scholar I want to make clear, up front, that I did not "come up with" the contents of this essay, but rather am drawing on the work of many scholars, students and others

who have shaped the way I see and think with/about this material. However, I am the one selecting what to present and how to present it in this specific essay, so any errors, mistakes or poor communication of ideas is my fault and responsibility.

As this is a reflection essay and not a reporting of original research on the topic, I'll keep it brief and to the point. I offer thoughts on the key topics introduced/discussed at the "Ethics and Best practices of studying contemporary human populations" symposium, outline how some of these ideas are playing out in practice, and close with a few suggestions for structural change.

## *Revising praxis and perceptions*

"The first and most important question to ask of the ethical practice of human biology is, who does human biological knowledge serve?" —Joanna Radin (2018)

At the heart of the issue facing biological research with humans is the fact that as Taiye Winful puts it: Bioethics is a complex constituted process and the need for ethics extends beyond IRB contexts. This is not a surprise and has been extensively discussed and differentially developed and addressed across multiple fields since the mid and late 20<sup>th</sup> century (Lederman 2007) and been of special interest to human biology for decades (Radin 2018, Turner 2012, Turner et al. 2017). Since at least the Belmont report (<https://www.hhs.gov/ohrp/regulations-and-policy/belmont-report/index.html>) structural guidelines for research on human subjects has been codified and as noted earlier many professional organizations have codes of ethics that lay out parameters for such work. However, the reality of cross-cultural complexities and the roles of collaboration in human biology based research creates challenges and complexities of bioethics, and biopolitics, that go beyond codified regulations and best practice ethical considerations (e.g. Tsosie et al. 2021a-d). Other scholars have engaged this substantially (for recent overviews see Turner et al. 2017 and Radin 2018) and recently it has become a focal point in human genomic studies (e.g. Avila-Arcos et al. 2021, Fox and Hawks, 2019, Hudson et al. 2020, Wagner et al. 2020). So, here I will just briefly note a few of the key specific elements that play central roles in this bioethical/biopolitical complexity that (I feel) necessitate repeating.

At the heart of the necessary reframing of human biological study is the view, paraphrasing Ripan Malhi, that ancestors are real people even if represented only as genetic sequences (see also Hudson et al. 2020, Reardon & TallBear 2012). Humans are not just bodies in the here and now. They are the remains, the parts, the tissues, the fragments of humans as

well. Biological materials of humans are human too. But how this plays out in specific contexts, specific cultures, specific historical and contemporary relationships, varies dramatically and significantly demanding that researchers be aware of, and engaged with, a myriad of variables and contexts. Any researchers engaging with human communities and their biology, past and/or present (and future), must lay out the specific ways by which this suite of realities in the local context is integrated into the core design and practice of analyses/study. For example, in 2018 Claw et al. offered a basic minimum set of expectations required in order to “foster collaboration with Indigenous communities.” They proposed six foundational principles for ethical engagement: Researchers must understand existing regulations, foster collaboration, building cultural competency, improve research transparency, support capacity building, and disseminate research findings (Claw et al. 2018). This should be seen as a minimal requirement for navigating the biopolitical ecology of research. And yet it only scratches the surface. Other scholars have noted the substantive need for an approach of data justice and equity, as opposed to equality and parity, as central basic to training, method, and publication/dissemination—as core of the entire research endeavor (Wagner et al. 2021 and LeBaron von Baeyer et al. 2024). As Wagner and colleagues (2021) note centering equity involves a full understanding and engagement with the fact that some communities experience “historic injustices and traumas attributable to social formations and processes derived from global imperialism and colonialism” that impact them, and that “This recognition of structural racism and discrimination is necessary for the design and selection of strategies and tactics to rectify these injustices and their downstream consequences.”

Another aspect of the process of centering equity is recognition of the clear and unalienable right of refusal. Refusal in this sense is not simply nonparticipation (Ortner 1995), an opting out of or rejection/withholding of consent, but rather must be seen as another mode of knowledge production (Benjamin 2016, Simpson 2016, see also Garrison 2017). Refusal by many “subjects” of human biological study is a “form of opting-out that is a rejection not only of a specific research project but of the enduring colonial logics that continue to animate science. It is a position that seeks to promote different but equally valuable kinds of knowledge” (from Radin 2018, see also Benjamin 2016).

Another requisite element of navigating the biopolitics of equity and restructuring research from the very genesis of conceptual design involves asking a series of core questions



that should undergird the first stages of any project. Katrina Claw and colleagues (Claw et al. 2018, Claw et al. 2021) push research to start with questions about relevance, context, and impact. For example, what is the actual experience of the diseases/condition/physiology/genomic diversity/etc. in the people who the data are drawn from? Can the research document or envision any actual examples of effective collaboration and outcomes based on/derived from the experience of the people whose data they are using? Do the methods/processes/frame being used in the study exclude any such outcomes? If so, why do them? And how does one change processes and practices in order to ensure benefit to the people one is collaborating with (as opposed to extracting data from) (see also LeBaron van Baeyer et al. 2024, Mangola et al. 2022)? Such framing responds to the realities of historic (and contemporary) injustices and traumas attributable to social formations and processes of colonialism, racism, sexism, and a range of other forms of oppression, inequity and injustice. Not all communities in which research collaborations are done map to all of these contexts, but many (if not most) do.

The bottom line is that to truly, and equitably, recognize, respect, and engage communities with whom the collaborations (research) are being undertaken requires that researchers be acutely aware of the marginalized/racialized/otherwise oppressed/excluded from power contexts/processes of the people they are working with (Mangola et al. 2022, McKerracher and Nuñez de la Mora 2022, Trisos et al. 2021). This is a minimum regarding “ethics” and mandates the recognition and restructuring of basic practice (and training) for much of human biology (which is underway in many, but not all, programs). To even begin thinking with and about such research, researchers must seek out available knowledge and develop a working understanding of the local, regional, and national histories, significant events and contexts of the people and the datasets they are working with (e.g. Argüelles et al. 2022, Avila-Arcos et al. 2021). Embeddedness and community belonging are central theses/themes and necessary practices for what (and how) biological anthropologists and human biologists do (Benn-Torres and Torres 2020). Training, teaching, and learning contexts must have this frame as “central” as other theory and method for accountability and restructuring of the reality of researcher-subject<sup>4</sup> power dynamics (Nelson 2019, 2021). This is more than ethics. This is a call for a restructuring of the basal decision-making processes and assumptions, and training, that go into research practice and the very disciplines of human biology and biological anthropology themselves (see also Fuentes 2021, Malhi et al. 2019, Smith and Bolnick 2019).

## *More than ethics, but still not enough*

In 2018 the historian of science Joanna Radin, reviewed and summarized a range of bioethical thinking on and with projects in human biology for *Annual Reviews in Anthropology*. Influenced by, and leaning heavily on, Indigenous and other BIPOC scholars (e.g. Benjamin 2016, Garrison 2017, Simpson 2016, Tallbear 2013, Tsosie 2012, Tuck and Yang 2012) Radin conveys their clear and unconditional message that by preconceiving the project of human biology as an expansive one of “making knowledge with” versus “doing research on” it becomes “a project in which ethical innovation can be regarded as central as technical innovation, human biologists are exquisitely well positioned to become leaders in the project of diagnosing and even healing systemic harms that hinder science from fulfilling its own best potentials” (Radin 2018). At least some of the articles and theorists that supported and facilitated this conclusion (along with many others that I’ve offered here) should be on every reading list in training programs in human biology, alongside the anatomy, physiology, endocrinology, genomics, contemporary evolutionary theory, and ethnographic methods.

In moving beyond a call for better (or more) ethics there is a core need for anthropological, historical, ethical, and anti-racist/anti-colonialist method and theory in dealing with data (existing, newly collected, and future collections) (McKerracher and Nuñez de la Mora 2022). The language used in communication with collaborators and the people/populations of focus matters. Researchers must be cognizant of the power/racist/colonialist/etc. contexts of the languages being used/available and either speak or work with collaborators who can speak the relevant languages—this is also true of the publication and dissemination of the results of studies (see also Haelewaters et al. 2021). Key questions such as who can gain access and what does language choice (and style) do to the accessibility and interpretation of results? The reporting of such data also must be front-ended with an anti-racist and anti-colonialist frame and with a sincere and serious recognition of the collaborative efforts and realities (Di Fabio Rocca et al. 2021, McKerracher and Nuñez de la Mora 2022). PJ Perry and collaborators offer an example of how such issues can be framed in an evolutionary genomics lab web page (<http://www.anthgenomicslab.com/outreach>) and the SING website is an example of these issues in practice (<https://www.singconsortium.org/>). Maria Avila-Arcos and colleagues offer such a frame for collaborative community-based field work (Avila-Arcos et al. 2021) and Jennifer Wagner and colleagues in the context of research infrastructure and dissemination via a specific

journal (Wagner et al. 2021).

While individual researchers and individual labs doing good work is a terrific start, it is not sufficient for what is needed. The fields of human biology and biological anthropology are making strides in doing what Rick Smith (2021) calls the “refusing bedtime stories of nature in which we might look to human biology and evolution alone” (see also Fuentes 2021), but how do these fields effectively make the next step of moving past the frame of established social and scientific traditions in these disciplines that (in)form us institutionally and professionally to believe that all we really need are to better follow ethics guidelines and obtain higher quality IRB review?

Drawing on the work of other scholars, as I have noted across this entire essay, I close by offering a few key areas to keep pushing the move of beyond “ethics” as a separate box/segment/process towards a state of praxis where the key frames lumped into “ethics” are interwoven with *everything* involved in human biology and biological anthropology. These brief suggestions overlap extensively with those of McKerracher and Nuñez de la Mora (2022) and I hope add to their proposal for a “an essential early step toward creating anticolonial spaces for more ethical and just production, consumption, and application of knowledge.”

The study of human biology needs the following:

- a) Biological Anthropology and Human Biology training and practice should include specific pedagogy, theory and methods that enables recognizing the historical, contemporary and pervasive processes of colonialism, racism and sexism as key foci and active structuring elements in all, or at least most, contexts in which research takes place and the manner in which research questions, and assumptions, are developed (e.g. see the frame of analyses used in Smith 2021, Mangola et al. 2022, and practices outlined in McKerracher and Nuñez de la Mora 2022).
- b) Practitioners and instructors can operationalize critical consideration of phenotypes outside of racialized, sexist, and other legacies of prejudiced typological thinking (see arguments/examples in Lasisi 2021). Changes can be made to introductory textbooks, laboratory exercises to facilitate more accurate and contemporary understandings and challenge a wide range of common evolutionary explanations/assumptions created by racialized, colonialist and other biased histories (e.g. Fox et al. 2020 on the “thrifty genotype”).
- c) The concepts, contents and processes in (a) and (b) must be included as a basic premises/understandings/expectations and required to be addressed in proposals, manuscripts and training pedagogy/curricula by 1) funding agencies (e.g. NSF, NIH, Wenner-Gren Foundation, etc.), 2) journal editors/editorial boards, and 3) PhD programs.

Changes in the structures and basal assumptions of “normal” is underway in human

biology and biological anthropology. However, substantive structural change across all levels and organizational elements is necessary to truly move beyond the call for more or better “ethics” into a new, more equitable, more just, more accurate realm of scientific praxis in the study of human biology.

*Received 16 May, 2023; accepted for publication 6 February, 2024.*

## Notes

---

1 See also the American Anthropological Association statement on ethics:

<https://www.americananthro.org/LearnAndTeach/Content.aspx?ItemNumber=22869>

2 And in the broader areas of the study of human behavioral ecology, see Broesch et al. 2020.

3 Actually, I would extend this call beyond human persons to the study of other animals as well and note that the two are inextricably intertwined, but that is another argument for another day. See Riley and Bezanson (2018), Bezanson and McNamara (2019) and Ferdowsian et al. (2019) of examples.

4 And researcher-researcher or instructor-student or mentor-mentee contexts, Nelson et al. 2017.

## Literature Cited

Alpaslan-Roodenberg S, et al. 2021. “Ethics of DNA research on human remains: five globally applicable guidelines.” *Nature*. 599(7883):41–46. doi: 10.1038/s41586-021-04008-x. Epub 2021 Oct 20. PMID: 34671160.

Argüelles, J.M., Fuentes, A. and Yanez, B. 2022. Analyzing Asymmetries and Praxis in aDNA Research: A Bioanthropological Critique. *American Anthropologist* 124(1):130–140 <https://doi.org/10.1111/aman.13692>

Athreya, S. and Ackermann, R. 2019. “Colonialism and narratives of human origins in Asia and Africa.” In M. Porr and J. M. Matthews Eds *Interrogating Human Origins: Decolonisation and the Deep Human Past*, Routledge. pp.72–95

Avila Arcos, M. C. 2018. “Who We Are and How We Got Here Ancient DNA and the New Science of the Human Past.” *Science* 360 (6386), 274–274

Avila Arcos, M. C., Sanchez Romero, G., Moreno-Estrada, A., Bustamante, C. D., & Feldman, M. W. 2021. Ethical considerations and community engagement experiences of the Afromexico Genomics Project. In *Am. J. Phys Anthropol.* 174: 6–7

Benjamin R. 2016. Informed refusal: toward a justice-based bioethics. *Sci. Technol. Hum. Values*

- Benn Torres, J., and Torres, G. 2020. *Genetic ancestry: Our stories, our past*. Oxford: Routledge.
- Bezanson, M. and McNamara, A. 2019. The what and where of primate field research may be failing primate conservation. *Evolutionary Anthropology: Issues, News, and Reviews*. 28. 10.1002/evan.21790.
- Broesch, T. Crittenden, A., Beheim, B., Blackwell, A., Bunce, J., Colleran, H., Hagel, K., Kline, M., McElreath, R., Nelson, R., Pisor, A., Prell, S., Pretelli, I., Purzycki, B., Quinn, E., Ross, C., Scelza, B., Starkweather, K., Stieglitz, J., and Borgerhoff Mulder, M. 2020. Navigating cross-cultural research: methodological and ethical considerations. *Proceedings of the Royal Society B: Biological Sciences* 287: 20201245
- Cisneros J.C. et al. 2022. Digging deeper into colonial palaeontological practices in modern day Mexico and Brazil. *R. Soc. Open Sci.* 9: 210898. <https://doi.org/10.1098/rsos.210898>
- Claw KG, Dundas N, Parrish MS, Begay RL, Teller TL, Garrison NA, Sage F. 2021. Perspectives on Genetic Research: Results From a Survey of Navajo Community Members. *Front Genet.* 12:734529. PubMed PMID: 34925442
- Claw, K.G., Anderson, M.Z., Begay, R.L. et al. 2018. A framework for enhancing ethical genomic research with Indigenous communities. *Nat Commun* 9, 2957 <https://doi.org/10.1038/s41467-018-05188-3>
- Cortez, A. D., Bolnick, D. A., Nicholas, G., Bardill, J., and Colwell, C. 2021. An ethical crisis in ancient DNA research: Insights from the Chaco Canyon controversy as a case study. *Journal of Social Archaeology*, 21(2), 157–178.
- Di Fabio Rocca, F., Russo, M.G., Arenciba, V. and Seldes, V. 2021. Ancient DNA Studies: Use of Ethnonyms and Collaborative Research in South America. *Journal of Anthropological Archaeology* 61:101265. <https://doi.org/10.1016/j.jaa.2020.101265>.
- Doerr, M. and Wagner, J.K. 2020. Research Ethics in a Pandemic: Considerations for the Use of Research Infrastructure and Resources for Public Health Activities. *Journal of Law & the Biosciences* 7(1). Isaa028.
- Edge MD, Matthews JN. 2022. Open practices in our science and our courtrooms. *Trends Genet.* 38(2):113–115. doi: 10.1016/j.tig.2021.09.010. Epub 2021 Nov 2. PMID: 34740452.
- Ferdowsian, H., Johnson, S.L., Johnson, J., & Fenton, A., Shriver, A. and Gluck, J. 2019. A

- 
- Belmont Report for Animals?. *Cambridge Quarterly of Healthcare Ethics*. 29. 1–19. 10.1017/S0963180119000732.
- Fox, Keolu, Kartik L. Rallapalli, and Alexis C. Komor. 2020. “Rewriting Human History and Empowering Indigenous Communities with Genome Editing Tools” *Genes* 11, no. 1: 88. <https://doi.org/10.3390/genes11010088>
- Fuentes, A. 2021 Biological Anthropology’s critical engagement with genomics, evolution, race/racism, and ourselves: opportunities and challenges to making a difference in the academy and the world. *Amer J of Pys Anth*. 175(2): 326–338 DOI: 10.1002/ajpa.24162
- Garrison NA. 2017. Evolving consent: insights from researchers and participants in the age of broad consent and data sharing. In *Specimen Science: Ethics and Policy Implications*, ed. HF Lynch, BE Bierer, IG Cohen, SM Rivera, pp. 185–99. Cambridge, MA: MIT Press
- Haelewaters, D., Hofmann, T. A., & Romero-Olivares, A. L. 2021. Ten simple rules for Global North researchers to stop perpetuating helicopter research in the Global South. *PLoS Computational Biology*, 17(8), e1009277
- Hudson, M., Garrison, N.A., Sterling, R. et al. 2020. Rights, interests and expectations: Indigenous perspectives on unrestricted access to genomic data. *Nat Rev Genet* 21, 377–384 <https://doi.org/10.1038/s41576-020-0228-x>
- Lasisi, Tina. 2021. The constraints of racialization: How classification and valuation hinder scientific research on human variation. *American Journal of Physical Anthropology*. 175. 10.1002/ajpa.24264.
- LeBaron von Baeyer S, Crocker R, Rakotoarivony R, Ranaivoarisoa JF, Spiral GJ, Castel S, Farnum A, Vance H, Collins N, Fox K, Wasik K. 2024. Why community consultation matters in genomic research benefit-sharing models. *Genome Res*. doi: 10.1101/gr.278308.123.
- Lederman, R. (2007). Comparative “Research”: A Modest Proposal concerning the Object of Ethics Regulation. *Political and Legal Anthropology Review*, 30(2), 305–327. <http://www.jstor.org/stable/24497380>
- Malhi, R.S.. 2021. Contributions to Anti-Racist Science: Introduction to Race, Racism, and the Genetic Structure of Human Populations Special Issue. *Hum Biol*. 2021 May;92(3):133–134. doi: 10.13110/humanbiology.92.3.01. PMID: 34057326.
- Malhi, R., Antón, S. & Fuentes, A. 2019. Increasing Diversity in Evolutionary Anthropological

- 
- Sciences—the IDEAS Program. *American Anthropologist*. 121. 10.1111/aman.13226.
- Mangola, SM., Lund, JR, Schnorr, SL. and Crittenden, AN. 2022. Ethical microbiome research with Indigenous communities. *Nature Microbiology* <https://doi.org/10.1038/s41564-022-01116-w>
- Mckerracher, L. & Nuñez-de la Mora, A.. 2022. More voices are always better: Tackling power differentials in knowledge production and access in human biology. *American Journal of Human Biology*. 34 Suppl 1. 10.1002/ajhb.23712.
- Mullings, L. Benn Torres, J., Fuentes, A., Gravlee, L.C., Roberts, D. and Thayer, Z. 2021. The Biology of Racism. *American Anthropologist*. 123(3) doi.org/10.1111/aman.13630
- Nelson, R.G. 2021. Theoretical Constraints: Science, Caretaking, and the Creation of Norms. *American Journal of Human Biology* 33: e23650.
- Nelson, R.G. 2019. Methods without Meanings: Moving Beyond Body Counts in Research on Behavior and Health in Wilermte and Hee-Lee eds, *Evaluating Evidence in Biological Anthropology: the Strange and Familiar*. Cambridge UK; Cambridge University Press.
- Nelson, R.G., Rutherford, J.N., Hinde, K., Clancy, K.B.H., 2017. Signaling Safety: Field Research, Sexual Harassment and Assault, and Career Trajectories. *American Anthropologist* 119 (4): 710–722.
- Ortner SB. 1995. Resistance and the problem of ethnographic refusal. *Comp. Stud. Soc. Hist.* 37(1):173–93
- Porr, M. and J. M. Matthews 2019. *Interrogating Human Origins: Decolonisation and the Deep Human Past*, Routledge.
- Raja NB, Dunne EM, Matiwane A, Khan TM, Nätscher PS, Ghilardi AM, Chattopadhyay D. 2022. Colonial history and global economics distort our understanding of deep-time biodiversity. *Nat Ecol Evol*. 6(2):145–154. doi: 10.1038/s41559-021-01608-8.
- Riley, E. and Bezanson, M. 2018. Ethics of Primate Fieldwork: Toward an Ethically Engaged Primatology. *Annual Review of Anthropology*. 47. 10.1146/annurev-anthro-102317–045913.
- Simpson A. 2016. Consent’s revenge. *Cult. Anthropol*. 31(3):326–33
- Smith RWA and Bolnick DA. 2019. Situating Science: Doing Biological Anthropology as a View from Somewhere. In: Vital Topics Forum—How Academic Diversity is Transforming Scientific Knowledge in Biological Anthropology. *American*



- 
- Anthropologist* 121(2):465–467.
- Smith RWA. 2021. Imperial Terroir: Toward A Queer Molecular Ecology of Colonial Masculinities. *Current Anthropology* 62(23):1:14.
- Somel M, Altınışık NE, Özer F, Ávila-Arcos MC. Collaborate equitably in ancient DNA research and beyond. 2021. *Nature* 600(7887):37. doi: 10.1038/d41586-021-03541-z. PMID: 34848866.
- Tallbear K. 2013. *Native American DNA: Tribal Belonging and the False Promise of Genomic Science*. Minneapolis: Univ. Minn. Press
- Trisos, C. H., Auerbach, J., and Katti, M. 2021. Decoloniality and anti-oppressive practices for a more ethical ecology. *Nature Ecology & Evolution*, 5, 1205–1212. <https://doi.org/10.1038/s41559-021-01460-w>
- Tsosie R. 2012. Indigenous peoples and epistemic injustice: science, ethics, and human rights. *Wash. L. Rev.* 87:1133
- Tsosie K, Yracheta J, Kolopenuk J, Smith RWA. 2021a. Indigenous Data Sovereignties and Data Sharing in Biological Anthropology. *American Journal of Physical Anthropology* 174(2):183–186.
- Tsosie KS, Claw KG, Garrison NA. 2021b. Considering “Respect for Sovereignty” Beyond the Belmont Report and the Common Rule: Ethical and Legal Implications for American Indian and Alaska Native Peoples. *Am J Bioeth.* 10:27–30. PubMed PMID: 34554064
- Tsosie KS, Bader A, Fox K, Bolnick DA, Garrison N, Smith RWA. 2021c. Ancient DNA Researchers Write Their Own Rules. *Nature* 600(37)
- Tsosie KS, Fox K, Yracheta JM. 2021d. Genomics data: the broken promise is to indigenous people. *Nature* 591: 529. doi:10.1038/d41586–021-00758-w
- Tuck E, Yang KW. 2012. Decolonization is not a metaphor. *Decolonization: Indig. Educ. Soc.* 1(1):1–40
- Urassa, M., Lawson, D. W., Wamoyi, J., Gurm, E., Gibson, M. A., Madhivanan, P., & Placek, C. 2021. Cross-cultural research must prioritize equitable collaboration. In Nature human behaviour. *Nature Research*. <https://doi.org/10.1038/s41562-021-01076-x>
- Wagner, J.K., Yu, J-H, Chong, J.X., Royal, C.D. and Bamshadm, M.J. 2021. Centering Equity in Human Genetics and Genomics Advances. *Human Genetics and Genomics Advances*. 2(4): 10048. <https://doi.org/10.1016/j.xhgg.2021.100048>



---

Yáñez, B. Fuentes, A., Silva, C.P., Figueiro, G., Menéndez, L.P., García-Deister, V., de la Fuente-Castro, C., González-Duarte, C., Tamburrini, C. and Argüelles, J.M. (2023) Pace and space in the practice of aDNA research: Concerns from the periphery. *Am. Jour. Bio. Anthro.* DOI: 10.1002/ajpa.24683