

COMMENT AND REPLY

Response to Bennett et al. Comment

Jack Kloppenborg^{1,*}, Claudia Irene Calderón^{2,3}, and Jean-Michel Ané^{2,4}Reply to Bennett, A, Van Deynze, A, Shapiro, H-Y, Weimer, B. 2024. An informed response to Kloppenborg et al. (2024)—Nagoya Protocol. DOI: <https://doi.org/10.1525/elementa.2024.00012>.

We do not wish to be drawn into an exchange that can be dismissed as the trivial bickering of self-obsessed academics. Still, let it be noted that we interviewed *both* Howard-Yana Shapiro and Alan Bennett. Further, we stand by our methods, data, analysis, and conclusions. We are willing to discuss our objectivity, subjectivity, integrity, and the seamliness of our activities with anyone who would like to engage us.

The substantive issue we should be concerned about here is what we can learn from the Mars-Totontepec case about how Nagoya's "fair and equitable sharing of benefits" is or is not being realized. Our study was undertaken not to hassle colleagues or to pad a research program, but out of a sense of responsibility to respond meaningfully to an explicit request for assistance from a representative of the indigenous organization Espacio Estatal en Defensa del Maíz Nativo de Oaxaca (Espacio).

As Bennett et al. request, we acknowledge their claim "that this was the first and only such agreement attempted with Mexico or the United States with the intention to do the right thing regarding access to indigenous genetic resources." Certainly, the UCD-Mars team was well positioned, practically and intellectually, to think carefully about how "the right thing" might be enacted. Shapiro had deep experience and intimate ties with the community. At UCD, Bennett teaches a course on "Professionalism & Ethics in Genomics & Biotechnology," and is Director of the Public Intellectual Property Resource for Agriculture. Although it evaded the oversight of Mexican authorities, the original 2005 MTA concluded between Totontepec and the University of California was surely extremely generous in its assignment of a 50% royalty to the community.

But with the creation of N2Genetics in 2013 and its reconstitution as BioN2 a year later, there was a transition

from a UCD-led scientific and at least partly philanthropic initiative to a fundamentally commercial venture. At this point, Shapiro and Bennett apparently withdrew from direct engagement with Totontepec, leaving the community to negotiate the ABS agreement with the corporate attorneys from BioN2 and WilmerHale. Absent their counsel, and given the insufficient oversight by the Mexican authorities, it is difficult to understand how effective PIC (prior and informed consent) could have been established. We regard this asymmetry of knowledge and power in the decision-making process as a failure to enact *procedural justice*.

Bennett et al. explain that although they "had worked with many communities in the region since 2004," Totontepec was selected for the ABS agreement because "it was only Totontepec, as a community, that was genuinely interested in advancing the scientific research by providing access to resources and technical expertise." This selective identification of a compliant community from a larger set of resistant communities to gain access to a jointly held resource is a further example of a failure to enact *procedural justice*. Such a strategy was widely used in the 19th century to appropriate Native American land via Treaty, and its use today to appropriate genetic resources from Indigenous Oaxaca is indefensible. The provision of material benefits—"a substantial licensing payment"—to Totontepec does not justify this process. Indeed, as we observe in our article, rewarding only one party without rewarding others with a rightful interest is also a clear violation of the principle of *distributive justice*.

As described in our article, a significant impediment to our research was repeated confrontation with "confidentiality." On the grounds of confidentiality, we were refused access to the Mars-Totontepec ABS agreement by both the Mexican authorities and Mars. This lack of transparency apparently was extended to key members of the Mars-UCD team. As Bennett et al. acknowledge in their comment, "none of the co-authors were privileged to the agreement," and so knew nothing about its details. Nevertheless, both Shapiro and Bennett, in our interviews, and with filmmakers, journalists, and book authors, have declared their pride and satisfaction in a document that they have never seen. This lacuna in their knowledge has not prevented them from publicly misrepresenting a key provision of the agreement. Without the courage of an anonymous donor who supplied us with a copy of the

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ABS agreement, we would have only a slim basis for questioning the claims made by all the central players in the *olotón* drama. This point bears emphasis: despite its protestations about the desirability of transparency, permission for confidentiality is embedded in the Nagoya Protocol itself. This feature of the Protocol encourages and enables misrepresentation and is a structural impediment to an accurate assessment of the “fairness and equitability” of any ABS agreement.

So, what is to be done? Alas, we cannot claim and have not claimed to be following the “noble path” imagined for us by Bennett et al. In fact, both the Ané lab at the University of Wisconsin and the labs at UC-Davis now likely find themselves in the same situation. Researchers at both universities have abandoned work with material collected under the 2005 MTA and the 2015 ABS agreements with Totontepec, the Ané lab for ethical considerations, and the UC-Davis labs because of restrictions now imposed by newly attentive Mexican authorities. This has not stopped research on *olotón* or *olotón*-like material. As we explained in our article, samples of seed from *olotón*-like maize were collected decades ago and have been stored in genebanks at the International Maize and

Wheat Improvement Center and the United States National Plant Germplasm System. Samples from the former are available under the Standard Material Transfer Agreement of the International Treaty on Plant Genetic Resources for Agriculture (ITPGRFA) and from the latter on a basis entirely unencumbered by any ABS or legal obligation (for material collected before 2017). Although the United States is not a party to the Nagoya Protocol, new collections of in situ material by U.S. collectors will be subject to Nagoya provisions in any country that is party to the Protocol.

So, is a cautionary tale of how *not* to do the right thing all that is left of the Totontepec *olotón* drama? We hope not. We do not know now how we will proceed. We do not know now how the work of the Ané lab will change because of what we have learned. The people of *Espacio* have challenged us to understand their position and perhaps to find another path in our work. We are trying to listen to them.

Competing interests

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Knowledge Domain: Sustainability Transitions

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