TRADITIONAL INDIAN LAW,
THE INTELLECTUAL PROPERTY REGIME,
AND THE
PROTECTION OF INDIGENOUS GENETIC
MATERIALS

by

James W. Zion

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James W. Zion, Jurisconsult
3200 Coors Road N.W., PMB No. K-233
Albuquerque, NM 87120

(505) 839-9549
JZion@aol.com
A. INTRODUCTION: APPROACHING THE ISSUES

My assignment for this roundtable was simple enough — what are the implications of traditional Indian law conceptions of indigenous genetic materials for international and domestic property law regimes? Does traditional Indian law speak to property rights in a way to affect the use of genetic materials? Does Indian law define human and civil rights to prevent abuses? What contribution can traditional Indian law make to the application of other legal norms, recognized in international or municipal (national) law, which would provide a basis for protection and indigenous control of the use of indigenous genetic materials?

The Indian common law approach, as will be shown, is to identify applicable norms to apply to the problem within the context and understanding of the Indian culture which possesses the norms. There is a four-step process:

- First, identify the issues, stated in terms of the originating culture. This step requires us to understand the problem we want to address. What are “genetic materials”? What is being done with them? What is the nature of genetic research impacting Indigenous Peoples? We need to understand the basic issues and the interests of Indigenous Peoples in both genetic research and intellectual property so that the questions which interest us can be translated into an indigenous context.

- Second, restate the issues in indigenous terms and context. We need to find a “keeper of the tribal encyclopedia,” an elder or medicine person, look to literature which describes applicable norms, or both. This is an interpretation process, whereby we need to pose questions from the originating culture in the context and understanding of the indigenous culture whose norms we want to know. This is also important in the process of involving Indigenous Peoples through education so their members can express their own voice and understandings on the issues. Genetic research may have long-term benefits for Indigenous Peoples for things such as improving crops or discovering the cures for diseases, but it also may be as destructive as past efforts to apply science to Indigenous Peoples in a destructive manner (as with the eugenics movement). Our questions must be posed within the context of the receiving indigenous culture for both an accurate understanding of the questions that need answering and guidance to the originating culture.

- Third, the applicable norms must be found. The initial reaction might be, “Come on! Don’t tell me that there are traditional Indian notions of either intellectual property or genetic research!” Of course there are. First, there are traditional Indian law concepts of intellectual property. Second, if we can explain what genetic research is being done and its implications for the receiving culture, then that culture will have norms and values which address the problem. The business of recognizing intellectual property in genetic

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1 Robert Yazzie, “Hozho Nahasdlii”—We are Now in Good Relations: Navajo Restorative Justice, 9 ST. THOMAS L. REV. 117, 121 (1996) (Quoting Marshal MacLuhan).
research is new to the non-indigenous world, so it is no less relevant for the indigenous
world to address.

- Fourth, we must examine the interplay of Indian norms and general law. The prevailing
  municipal law discourse is one that Indian law is “law,” but the question is the weight it
  may have for recognition and enforcement. If traditional Indian law has answers which
  are not acceptable to dominant (i.e. more powerful) legal regimes, then what tactics can
  be used to give priority to the answering indigenous norms? There is controversy in
  international law about what force, if any, indigenous customary law should have in
  recognizing or denying property rights, and we will need to address both customary law
  as law and social norm theories recognition and acceptance.

To undertake these four steps, this article will (1) lay out the issues of genetic research and
intellectual property for an understanding of their dynamics for translation into context to
identify indigenous interests, (2) attempt to translate the issues and questions into a particular
cultural context (Navajo), (3) identify and apply the norms of Navajo common law, and (4)
discuss the weight and application of the Navajo common law to intellectual property law,
genetics research, and the formulation of public policy which honors the Navajo approach.

**POsing THE QUESTIONS**

What is the nature of the genetic research that is being done? How is intellectual property law
responding to work in the field? Here, I will review the general thrust of genetic research
(largely for my own education, because my science background is slim), pose a few examples of
genetic research, identify the intellectual property issues, and restate the major issue questions in
a Navajo context.

The initial question is, what in the devil the genetic researchers think they are up to. If I were to
sit in a sweat lodge with elders or consult medicine people in a hogan, they would have to know
what I am talking about. To do that here requires me to figure out what the researchers think
they’re up to so I can understand a little of it myself, and then try to explain what they think
they’re doing in a Navajo context.

While there is a broad range of work being done in genetics, the primary focus here is the use of
indigenous genetic materials by scientists. There are two primary genetic systems for indigenous
genetic research: The first is mitochondrial DNA (“mtDNA”), and the second is Y chromosome
material. “Mitochondrial DNA” are “short pieces of genetic material found outside a cell’s

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2 Clifford Geertz suggests that “seeing things from the native’s point of view” calls for a “trick,” and “The trick is
to figure out what in the devil they think they’re up to.” “From the Native’s Point of View”: On the Nature of
Anthropological Understanding, in LOCAL KNOWLEDGE: FURTHER ESSAYS IN INTERPRETATIVE
ANTHROPOLOGY 55, 58 (Clifford Geertz, ed. 1983). It works both ways, and applying the “trick” is useful for
both introspective purposes (i.e. my education and thinking based on it) and for cross-cultural communication.

3 Theodore G. Schurr, *The Story in the Genes: Genetic Research Finds More, Older Options for First Americans*,
SCIENTIFIC AMERICAN DISCOVERING ARCHAEOLOGY 59 (January/February 2000).
The Y chromosome is inside the nucleus. Both kinds of genetic material have properties which make them “invaluable tools for molecular-anthropological studies,” namely:

- First, each is inherited from only one parent — mtDNA is passed from mother to daughter, and the Y chromosome is passed from father to son;
- Second, the two genetic systems “accumulate mutations in more or less linear fashion through time,” so “permanent and detectable genetic changes occur at a roughly predictable rate,” meaning that researchers can trace the evolution and divergence or change of female and male lineages in humans;
- Third, “many of the mutations detected in mtDNAs and Y chromosomes correlate with the geographic region in which they first occurred,” and that makes it possible to trace migration patterns by the mutations or “genetic markers” found in different populations; and
- Fourth, the genetic systems are sensitive to random processes, such as “genetic drift” or changes which result from factors such as geographic isolation, migration, or population splits.

Mitochondria from cells are used to trace “haplogroups” or female lineages, which are defined by “a specific set of genetic markers.” The mitochondria or mtDNAs of Native American or Indian populations fall into four primary haplogroups, labeled “A, B, C, and D.” “Statistical analyses indicate that haplogroups A, C, and D originated about 35,000 to 25,000 years ago in both Siberia and America.” One study suggests that haplogroup B appeared to be “much younger in America (about 15,000 years ago),” but another work suggests that it was in East Asia 30,000 to 24,000 years ago, and its members may have entered America during that time.

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4 *Id.* (There is also a graphic showing what is “Inside a Cell”).

5 *Id.*

6 *Id.* To give a preview of Navajo common law thinking, my citation to these statements is *jine* - hearsay. In one Navajo sense, *jine* (“they say”) could mean that I accept the truth of the statements to the extent that I’m saying “I don’t know this personally, but I believe it.” In another, *jine* means gossip, or “I’m just telling you what they told me, and it may or may not be true.” I cite to the statements without any knowledge of the truth or falsity of what I’m quoting, but I’m not confident enough that what I read is true to use *jine* in the first sense.

7 *Id.*

8 *Id.*, at 60. A Navajo traditionalist might point to the existence of four original groups and say that such a conclusion confirms the Navajo belief that Changing Woman created four original clans from Her own body.

9 *Id.*

10 *Id.*
There is a fifth haplogroup, “haplogroup X,” which is “genetically linked to the rare European haplogroup X.”11 That lineage has not been identified in any East Asian or Siberian population (which has groups A, C and D), but it has “been observed in low frequencies in a number of European, Middle Eastern, and West Asian groups,” with the suggestion that the haplogroup arose somewhere in that “general region.”12 Haplogroup X is found primarily in North America (unlike the other haplogroups, which are distributed throughout the Americas), and “X” appears to have had a “relatively ancient arrival” in the New World, namely 30,000 to 15,000 years ago.13 Thus, genetic research is being used to speculate about the geographic and genetic origins of American Indians, with a general assumption that the “land bridge” theory of American Indian origins is correct.14 That is the general theory and application, and there are three concrete examples of genetic work being done with mtDNA, the Y chromosome, and efforts to address Indian health issues.

One journal piece which appears to have contributed to the short (and popular) Scientific American article above was a study done by an apparently prestigious group of scientists working in the field of genetics.15 The authors took a total of 36 samples (22 Native American and 14 “European”) for their study, including seven northern Ojibwa from northwestern Ontario, two southwestern Ojibwa from Wisconsin, five southeastern Ojibwa from Manitoulin Island in Lake Huron, six Navajos from New Mexico (separately collected by different researchers), and two Nuu-Chah-Nulth from Vancouver Island in British Columbia.16 The fourteen “Caucasian-European” samples were taken from two Caucasians of European ancestry from the United

11 Id.

12 Id. The intersections of Europe, the Middle East and West Asia constitute a rather large “region,” and of course, any of those could be “the” originating place, given human migration.

13 Id.

14 See also, DNA & Native American Origins, <<http://www.chattanooga.net/cita/mtdna.html>> (Visited on May 11, 2001) (collection of articles on genetic research from various sources). Vine Deloria attacks the land bridge theory based upon the physical evidence and a long history of false scientific assumptions about Indians. VINE DELORIA, RED EARTH, WHITE LIES: NATIVE AMERICANS AND THE MYTH OF SCIENTIFIC FACT (1995). I have a sense that old assumptions have crept into genetic research, and nothing I have read thus far shows a clear basis for the linkage between the Americas and Asia, because I am not convinced -- from limited gene sampling and a demonstration of how the theory works— that there is proof which is independent of previous guesses from archaeology and anthropology.


16 Id., at 1853.
States, one French Canadian, one Finn, five Israeli Druze\textsuperscript{17} and five Italians.\textsuperscript{18} The group (or some of it) then did “high-resolution RFLP analysis” on the collected mtDNA samples to draw conclusions.\textsuperscript{19} The tests confirmed that all 22 Native American and all 14 European mtDNAs belonged to haplogroup X.\textsuperscript{20} Based on other tests, the authors suggested that there is “only one possible founder haplotype,”\textsuperscript{21} and that the age of haplogroup X is 23,000 years; more or less.\textsuperscript{22} Other data, “in both Europe and the Americas,” “suggests that this is the founder motif that originated in the Old World and moved to the Americas.”\textsuperscript{23} The authors estimated that the “coalescence time” for the haplogroup was 31,000 to 36,000 years ago.\textsuperscript{24}

They suggest that haplogroup X is a “fifth founding mtDNA haplogroup for Native Americans.”\textsuperscript{25} The next question they posed was, “Where did this haplogroup originate?”\textsuperscript{26} The article indicates that haplogroup X has not been detected in “numerous Asian/Siberian populations”\textsuperscript{27} or in northern Asia.\textsuperscript{28} Haplogroup X is restricted to “some of the most northern

\textsuperscript{17} The authors do not tell us why they selected Israeli Druze subjects, and the Druze are a religious group founded in the 10\textsuperscript{th} century. Druze, in ENCYCLOPEDIA.COM, \url{http://www.encyclopedia.com/articles/03819.html} (Visited on May 30, 2001).

\textsuperscript{18} Brown \textit{et als.}, \textit{supra} n. 15, at 1853.

\textsuperscript{19} \textit{Id.}, at 1853-1855 (including a table). What was done is beyond my comprehension, because it was not explained in terms a non-scientist reader could understand. \textit{See}, Judith A. McKenna, Joe S. Cecil, & Pamela Coukos, \textit{Reference Guide on Forensic DNA Evidence}, in \textit{REFERENCE MANUAL ON SCIENTIFIC EVIDENCE} 276, 281-284, for an overview of RFLP or “restriction fragment length polymorphism” analysis.

\textsuperscript{20} \textit{Id.}, at 1855.

\textsuperscript{21} \textit{Id.} I assume that a “founder haplotype” would be some kind of original clan mother. I will not elaborate here, but there are strange things going on in the field. There is a new book, BRYAN SYKES, \textit{THE SEVEN DAUGHTERS OF EVE} (2001), which reaches the conclusion that there are seven original “clan mothers” for humans, including one “Xenia:” “Not much is known about Xenia, but it is believed that her people lived in the Caucasus Mountains 25,000 years ago. Just before the Ice Age, this clan spread across Europe and even reached the Americas.” Jennifer Vieges, \textit{Daughters of Eve — Geneticist: All Europeans Descended from Seven Matriarchal Clans} (ABC News, April 21, 2000); \url{http://www.abcnews.go.com/sections/science/daughters000420.htm} (Visited on June 9, 2001). My wife, learning of this new, potentially Navajo, “clan mother,” was disappointed that she was called “Xenia” rather than “Xena” — the warrior princess.

\textsuperscript{22} \textit{Id.}, at 1856.

\textsuperscript{23} \textit{Id.}

\textsuperscript{24} Table 2, \textit{Id.}, at 1857. The table suggests that “coalescence-time” means the presence of the group in the Americas. The authors do not explain how it is that haplogroup X is 23,000 years old but “coalesced” in the Americas from 31,000 to 36,000 years ago. How can a group “coalesce” yet not be born for thousands of years?

\textsuperscript{25} \textit{Id.}, at 1857.

\textsuperscript{26} \textit{Id.}

\textsuperscript{27} \textit{Id.}

\textsuperscript{28} \textit{Id.}, at 1858.
Amerindian populations,” and “Its presence in the Navajo but not in other Na-Dene populations suggests that ... the Navajo have acquired haplogroup X through admixture with northern Amerindian populations. This could have occurred during or after the recent migration (1,000 years ago) that brought the ancestors of the Navajo from the Athapascan homeland (Alaska and western Canada) to the southwestern United States.” The authors claim that start of Navajo haplogroup mtDNAs is likely Amerindian in origin because the Navajo “sequences” are similar to those found among Ojibwa Indians, and “the homogeneity of the Navajo sequences ... suggests that the Navajo acquired haplogroup X very recently.” The speculation is that there is a “single founder root for Native American mtDNAs, yielded as a coalescence age, in the New World, or 23,000-36,000 years ago.”

Then, the authors speculated on the place of origin of haplogroup X, saying:

The similarity between the western Asian/European and Native American haplogroup X mtDNAs appears to indicate a western Asian origin of this haplogroup. Indeed ... the coalescence time for haplogroup X in Caucasians is estimated to be 30,000-40,000 years ago, ... compatible with both a Near Eastern origin of haplogroup X and its subsequent spread, probably at a low frequency, into Europe and Asia. If this is the case, then it is possible that this mtDNA was brought into Beringia/America by the eastward migration of an ancestral Caucasian population, of which no trace has so far been found in the mtDNA gene pool of modern Siberian/eastern Asian populations.

Another group of scientists approached the same theme of an Asian origin of American Indians using the Y chromosome. This study, which traced male lineages, involved 306 males taken from “five linguistically distinct Siberian populations” and from “Native Americans, Europeans, Indians, Mongolians, central East Asians, and Africans.” Ten samples (south and central Amerindians and a Na-Dine) were bought from the National Institute of General Medical Science, and ten additional Native American samples (“not Aleut-Eskimos”) came from

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29 Id.
30 Id., at 1858-1859.
31 Id., at 1859.
32 Id. Again, note the discrepancy in “coalescence” time and age of the haplogroup.
33 Id.
35 From India, I assume.
36 Santos, et al.s., supra n. 34, at 620.
“paternity tests in North America.” The authors spelled out their conclusions following the usual scientific mumbo-jumbo describing what they did with the genetic material: They found 32 haplotypes in the 306 men, and they named the “major Amerindian haplotype” “haplotype 31.” They also found that “haplotype 10” was frequent in the Native American sample “and was found exclusively among North American Indians.”

It was also found in one Mongolian and four Indian samples. A “haplotype 20,” “which is similar to haplotypes 10 and 31,” was found in one North American Indian and “in some populations from the central region of Siberia.” Based upon the samples, the authors concluded that haplotype 1, which is “the most frequent in Europe (53%),” was the result of recent “admixture” with Europeans, but haplotypes 10, 20, and 23 are absent from Europe.

Following the discussion of the various kinds of “Y” haplotypes and their frequency in the sampled populations, the authors drew some broad conclusions (also basing some of their assumptions on archaeological and anthropological studies): They claim that there was a migration path from Asia and that “The present-day distribution of haplotypes related to haplotype 31 can be explained by a radiation from central Eurasia and a southern route to the Indian subcontinent.” “The major Native American haplotype 31 is present on both sides of Beringia, most likely because of an American or Beringian origin of the mutation in the DYS199 locus.” A map in the article shows an arrow with a question mark showing a possible passage back across the land bridge to eastern Asia. The study also found a common ancestor -- haplotype 10— “between Native Americans and Europeans, who left some rare descendants in Siberia, among the Kets and the Altaians.”

The study concluded with a bombshell, that is worth quoting from the text:

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37 *Id.* One wonders if the males who offered samples for paternity tests gave their informed consent for the use of their genetic material in tests other than paternity. In other words, there is obviously a market in indigenous genetic material.

38 *Id.*, at 621.

39 *Id.*

40 *Id.* From the context of the paragraph, the authors obviously meant Indians from India. Am I being a fussy old lawyer, or do we have a problem when an article says that haplotype 10 was “frequent” in the Native American sample, “found exclusively” among North American Indians, but also found in one Mongolian and four Indian samples?

41 *Id.*

42 *Id.*

43 *Id.*, at 625.

44 *Id.*, (citation omitted).

45 Figure 3, *Id.*

46 *Id.*, at 626.
This study traces the major Native American Y chromosome haplotype to the immediate ancestor shared with present-day Siberians and to an older common ancestor shared with Caucasoids (Europeans and Indians). This common ancestry of Native Americans and Caucasoids could explain the existence of non-Mongoloid skeletons, such as the Kennewick man.  

Scientists aren’t simply having fun trying to prove the land bridge theory and quibbling over precisely where in Asia American Indians came from. There are some useful efforts as well. There is a study of “severe combined immunodeficiency disease” (“A-SCID”) to see if it is genetic in origin, and if so, how it might be treated. This particular study involved 12 Navajo families, 1 Apache family, and 1 Dine’ family. The samples “were collected from affected and unaffected individuals from the participating families, after informed consent was obtained,” and “This study was approved by the Committee on Human Research at the University of California San Francisco (UCSF) and the Navajo Nation Health Board.” The authors identified a genetic linkage for the ailment and said that “the best explanation for our results is that the Navajo, Apache, and Dine’ descended from the same ancestors and carry the same ancestral mutation for A-SCID, which occurred in one of their common ancestors sometime before 1300 A.D.”

What are some of the problems with this research? Have we gotten so sophisticated that there are finally bright-line ways of undisputedly tracing human migration and ancestry? There are problems. For example, when, “precisely” did Navajos come over the land bridge -- if they did in fact, when their Creation Scripture indicates they emerged from a hole on top of a mountain in southern Colorado? If they are indeed represented by “haplogroup X,” did they arrive 30,000 to 15,000 years ago, as suggested by Schurr, 31,000 to 36,000 years ago, as suggested by Brown and his associates (including Douglas C. Wallace), or did the Na-Dine language family, including Navajos and Apaches, only get here “in a second migration a mere 5,000 to 10,000

47 Id.


49 Id., at 138. Later, at page 140, the authors clarified that by using the term “Dine’” they meant “Dine’ Indians from the Northwest Territories” [of Canada], who are also known as “Dene.”

50 Id.

51 Id., at 142.

52 Supra, n. 3 at 60.

53 Supra, n. 15, at 1857. I have a problem with this study because of the low numbers of samples from the separate groups and the use of other limited data to assign percentages of “X” membership for Indian groups. Using a limited sample from other research, the percentages of numbers of “X” in the identified groups is quite low. Other articles are saying that Navajos are “X,” and of course that they have some common European ancestor.
years ago,” as Wallace is quoted in a Wall Street Journal article. Which is it? Were Navajos the first or the last across the land bridge?

No, we haven’t achieved complete accuracy or even a proven level of reliability, and it is obvious from the land bridge-Asian origin pieces that there are still some questionable assumptions taken from earlier studies from other sciences. There is even disagreement among geneticists about methodology. That is to be expected. I am concerned about the scientific basis of these studies, and note that the Sub-Commission on Prevention of Discrimination and Protection of Minorities of the United Nations Commission on Human Rights adopted standards for “human genome diversity research and indigenous peoples,” and (apparently based upon articles in the journal Nature) indicated that there must be blood or tissue samples from at least 25 individuals from each population, who have given their informed consent, to have a valid sample. I watched for that in the studies above, and I am concerned about the small numbers of samples taken and the accuracy of the identity of distinct ethnic or linguistic groups. Do the scientists consider the adverse consequences of their work when it is taken out of context? For example, one web piece which summarizes the Brown group’s work in a very


55 I recall seeing a news item about the “discovery” that Navajos were recent arrivals and teasing my Navajo wife about her Navajos always being late for everything.

56 While genetics researchers may claim to have proven their theories to each other in their mob-written articles, there is no “proof” as far as I am concerned until they demonstrate the validity of their theories to the general public in an understandable way. I hold myself to the same standard when writing, hoping that members of the general public understand my version of legal jargon. While I have been accused of “dumbing down” in my writing, I attempt to write for a general audience.


59 Supra, n. 15.
scientific way has the caption “Genetic Research Confirms Whites Are the True ‘Native Americans.’” Genetic research has even played a role in the longstanding “Navajo-Hopi Land Dispute” -- Hopis claimed that Navajos had no rights to the land in question because they were not “from” there (being late arrivals, according to anthropologists), so genetic research was used to show that Navajos had common ancestry with Hopis through the Anasazi. There was even some exploration of the subject of this article in the popular television show, “JAG,” on Navajo cultural resistance to the DNA testing of human remains to identify a World War Two Navajo Code Talker.

The problem may not be so much with genetic research itself as with what happens when the studies published in scientific journals (in reader unfriendly language) is picked up by journalists, pundits, and bigots. There are many social issues which surround the scientific research, including its use for racist ends, demeaning or isolating given groups of people, stealing the genetic heritage of Indigenous Peoples, or even using research for war. Kimberly TallBear of the International Institute for Indigenous Resource Management has identified some of the salient issues well, expressing concerns that tribal identity may be racialised due to genetic research.

Another concern is intellectual property law. In 1980, Congress changed American patent law to permit universities and research facilities to patent a wide range of new applications that arise from scientific research, including genetic patents. Given the relaxation of what it takes to patent something, there are genuine concerns that indigenous genetic material may be patented. What would happen, for example, if mtDNA research was used to patent a Navajo clan, which traces lineage through the female line? Doesn’t a clan “own” itself, and wouldn’t it be presumptuous for a non-Navajo to claim property rights to a clan’s identity?


63 Steve Olson, The Genetic Archaeology of Race, 287(4) THE ATLANTIC MONTHLY 69 (April 2001); <http://www.theatlantic.com/issues/2001/04/olson-p1.htm> (Visited on May 11, 2001). This article gives a good overview of the issues arising from genetic research, and it has a useful collection of links to original journal articles.

64 Kimberly TallBear, Genetics, Culture and Identity in Indian Country (October 2000) and Racializing Tribal Identity and the Implications for Political and Cultural Development (February 2001).

Given this background, looking into what is being done with genetic research, and stating some of the policy issues for Indians, how would one phrase questions to a Navajo keeper of the tribal encyclopedia or what would one look for in the literature? This is a difficult problem, because the way the question is phrased might dictate an answer.

I would first show my informant a drawing of what a human cell looks like, and explain what “mitochondrial DNA” and a Y chromosome are. Rug weavers are used to patterns for rugs, and medicine people know how sand painting images explain things. I would point to a mitochondria and explain that it is the pattern for the woman’s line - for one’s clan. I would then point to the nucleus and say that within it is the pattern for the man’s line - the clan one is born for. Navajos believe that the part represents the whole, so this would be understandable from that point of view. Many Navajos like illustrations, diagrams, and flow charts to explain things. I would then tell my informant how the scientists get the cell, namely through drawing blood, scraping skin tissue, or taking a saliva sample. I might (or might not) point out that when live samples are taken, scientists have a way of killing cells. Then I would try to focus on our other questions: First, assume that this is a map or pattern for a clan. Who owns that pattern? Is it the clan’s property? Let us say that I know the ceremonial or way of doing things with that pattern — is that my property? Is what I do with the map or pattern something that people should pay me for? Is this knowledge? Is this “power” that is a basis for rights (explained below)?

Are there any yii-yahs associated with how they get this material? Have the Holy People set down any prohibitions about collecting and using materials from humans? Is the problem with taking blood, tissue or saliva, or is the problem what is done with it?

Finally, recognizing the fact that this is something entirely new and that traditional concepts may be difficult to articulate, I would ask, “Having told you what is going on (and I would explain the

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66 E.g., Schurr, supra n. 3.

67 For example, I have a print in my collection (which I got from the Franciscan Museum at St. Michaels, Navajo Nation [Arizona]) which shows a drawing for a Navajo chant. The original was drawn on buckskin. It shows two spirits and a graph, read from left to right, for a “liberation prayer.” It looks amazing like a DNA sample. Unattributed (probably Berard Haile), Mnemonic device for c’exo.yat.e’h Liberation Prayer (n.d.).


69 Yii-yah! is “yikes!” in Navajo, and refers to things that are dangerous or frightening. Philmer Bluehouse of the Dine’ Medicine Man’s Association explains that there are three ways to teach children: Yii-yah, doo-dah, and hago (phonetic rendering). “Yii-yah” is the things to avoid, because they are dangerous. “Doo-da” is “no” or “don’t.” “Hago” is “do this certain thing.”
research and its implications in more detail), what do you feel about it? Is this respectful? Is there k’e in this?”

A NAVAJO COMMON LAW APPROACH

Many people are confused by the idea of “Navajo common law” or “traditional Indian law.”

While it is easy to oversimplify them, there is an approach to understanding what they are for the purpose of “finding” principles of Indian law and using them. The approach used by the Navajo Nation Supreme Court, as related by its current chief justice, the Honorable Robert Yazzie, is that “law” consists of norms, values, and moral beliefs. They become “law” when they are stated and applied by institutions. The quest, then, is to ascertain the Navajo norms, values and mores which apply to our problem.

The difficulty, however, is the “level” of such knowledge. There are basically three levels of knowledge when one culture seeks to know the things of another — taboo, ritual, and synthetic knowledge. The “taboo” (yii-yah!) level of knowledge is the most concrete way of knowing something, and it deals with “an awareness of things that are safe and things that are dangerous — that is, things to avoid.” “Ritual” knowledge has to do with the “alteration or manipulation” of the world or reality, because “the world is not seen as given.” More specifically, ritual can ‘correct’ mistakes, or anticipate or immunize against them.... Ritual offers fairly active control of one’s environment as contrasted with the fairly passive control that taboos offer.” The third level of knowledge is “synthetic,” meaning a “level or degree of synthesis or abstraction.” This is where we “know” things by statements of abstract principles. There are problems with all three levels of knowledge — the relation of taboos may carry with them inferences or assumptions that people are “primitive” or superstitious; ritual knowledge is often misunderstood or misstated by people who are not practitioners of that knowledge; and statements of synthetic knowledge carry the danger that the outside observer “got it wrong” or misstated the actual abstract belief of the culture under study. Most of the earlier literature about Navajo norms,

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70 There are many meanings of the Navajo word k’e, but in the context of the question, it asks, “Is this being done in a respectful way, as Five-Fingered Peoples (humans) are supposed to relate with each other?”

71 Yazzie, supra n. 1, at 121.


73 Id., at 10.

74 Id., at 11.

75 Id.

76 Id., at 13.

77 See, Todd Edwin Jones, Ethnography, belief ascription, and epistemological barriers, 53(1) HUMAN RELATIONS 117 (2000); and Clifford Geertz, supra n. 2.
practices and mores is of the “taboo” variety, where Navajo beliefs about what to avoid were recorded, and there is a great deal of ceremonial literature because of the many writers who paid for and obtained translations of various ceremonies, prayers and chants. Those two kinds of knowledge are the foundation for a huge literature on Navajos of the synthetic knowledge variety. As mentioned, there are epistemological problems with going to the keepers of the tribal encyclopedia in terms of communications and understandings, just as there are problems with using literature.  

However, my experience with validating literature with Navajos is that while there are some mistakes in the literature (or there is a “mistake” because Navajo customary perceptions can vary by region or group), many statements, particularly in the more classic works, are acceptable.

The best approach to our questions is to state general, synthetic, principles first and then move to other levels of knowledge. Ritual knowledge will not be addressed here, because the available literature on point does not discuss it directly.

Going first to the question of genetic material as property, we need to take a general look at Navajo property concepts. Navajo possessory rights are related to the concept of things existing or existing because of the work of the possessor. For example, in Navajo, one asks “Does this ... or that exist?” or “does this exist by means of you?” Navajos had concepts of intangible property, as with intellectual property, including knowledge possessed by an individual. Knowledge, whether it is acquired by formal instruction, or by experience, is valuable, and the person who possesses knowledge may teach it to another and be paid for it without lessening personal wisdom or power. To illustrate that personal knowledge is valuable property, in teaching one’s children things, “While imparting this knowledge the father ‘may post a sentinel outside to make sure that no eavesdropper is there to steal the knowledge he is imparting.’”

One thing which is not adequately discussed in Navajo literature is the concept of knowledge as “power.” The hangup is about what the word “power” means in Navajo context. I believe that it refers to knowledge as a means of control and keeping an orderly life. Life is inherently dangerous, so one must exercise control and order. One means of doing that is to gain

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78 Many years ago, in the pile of read but discarded journals, I saw a piece that said that anthropologists enter that field because they are deviants in their own culture, and when they go out to study another, only the deviants of that culture will speak with them. The product is the literature about people. As Farella says, synthetic knowledge is artificial, but that is what we have to work with. Do we really describe reality as it is, or do we create it through what we say and write about it?

79 BERARD HAILE, PROPERTY CONCEPTS OF THE NAVAJO INDIANS 23 (1968). Berard Haile was a Franciscan priest who worked with Navajos from 1900 through 1961. TALES OF AN ENDISHODI: FATHER BERARD HAILE AND THE NAVAJOS 1900-1961 (Murray Bodo, transcriber and ed. 1998). He is considered to be a reliable source because, among other things, he spoke Navajo fluently and devised writing systems to transcribe it.

80 Haile, Id., at 25, 53.

81 Id., at 29.

82 Id., at 39.
information, through learning or experience, which helps control the surrounding environment or world. That can be done through knowledge of ceremonial or ritual power, and in the modern world, it can be done by acquiring western knowledge in addition to traditional wisdom. The fact that knowledge gives power highlights the value of knowledge as an item of valuable property.

In addressing group ownership, Haile indicated that while a Navajo clan might not “own” material property, it “owned” its clan members. There was a great deal of clan interest in terms of who could marry a clan member, and the domestic relations of clan members. Indeed, this is the basis for Navajo legal procedure, because disputes among clan members are the business of other clan members. The question, then, given the ownership of a member of a clan by that person’s clan, is whether the clan has an interest in a clan member disposing of blood, saliva, or skin samples for genetic research. I suggest that it does, as will be discussed below.

Therefore, there are Navajo concepts of intellectual property in the form of rights to the things one makes or possesses and the right to compensation for one’s acquired knowledge. This is also the basis for western intellectual property law. The objection would be that a Navajo cannot “own” genetic information, because he or she does not possess it. That is, an individual Navajo would only furnish a blood, saliva, or skin sample for research, but it would be the outsider who would study it to obtain knowledge of what the sample “says,” and that person would possess the knowledge. That leads us to a discussion of a different kind of “ownership” of body parts, special interests in them, and traditional considerations that relate to genetic materials.

There are two Navajo “laws of thought” that are basic - “like produces like,” and “the part stands for the whole.” These concepts are relayed in the unfortunate anthropological term, “sympathetic magic,” with two subsets, “imitative” magic” and “contagious” magic. “Imitative magic is based on the principle that ‘like begets like.'” “Contagious’ magic is predicated on the idea that things which have once been in contact with each other will retain a shared essence even after being separated. A witch needs only some item from his intended victim — hair, nails, feces, or a piece of clothing — to do him harm, for what is done to the object in the witch’s possession is done also to the victim.” The like begets like principle has to do with genetic material being a part of the human body, so that what is done to material such as a cell is done to the person whose cell it is, and the part stands for the whole principle.

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83 Id., at 52, 6.


86 Id., at 22.

87 Id.
establishes that relationship. Another way of stating the concept is that the whole is a combination of parts.

These concepts are part of Navajo conceptions of witchcraft and sorcery:

Sorcery is essentially an enchantment by spell. The Sorcerer does not need to encounter his victim personally at all. He must merely obtain a bit of the victim’s clothing or, better, personal offal (hair, nails, faeces, urine, body dirt). This will be buried with flesh or other material from a grave or buried in a grave or under a lightning-struck tree. The Sorcerer will then recite a spell, often setting the number of days after which the victim is to die. The incantation may be recited as is a prayer in a chant or may be a song or both songs and spoken formulas may be employed.

This is the principle of “synecdoche” where all parts of the body belong to someone and there are rules governing effect, where what is done to a part of the body is done to the person.

Therefore:

The structural principle of synecdoche informs Navajo notions of self and person, as well as human relationships. Both the awareness Navajo people have of themselves as perceptible subjects--the self—and the social construct based on culturally sanctioned rules governing rights, prerogatives, and agency embodied in the corporeal body--the person—are informed by the principle of synecdoche. This principle dictates that the boundaries of every individual extend around the full area in which parts of his or her body and thoughts exist. To maximize positive effect and minimize negative effect, Navajo people must demonstrate personal responsibility over parts and substances of their own bodies and those of children, because body parts and bodily substances can affect the health and welfare of the individual, and, by extension, his or her own kin, long past detachment or elimination. Without doubt, understanding the potential consequences that may result from propitious or careless handling or disposal of detached body parts (hair and fingernails) and bodily secretions (saliva, blood, skin oil, and urine) influences Navajo perceptions of themselves as individuals.
with volition, as well as other perceptions of the web of interconnection that anchors them within the larger sphere.\textsuperscript{92}

Given the potential of sorcery, Navajos take care with spit, urine and hair when they “dispose” of them.\textsuperscript{93} Navajos weavers have the problem that their hair, dry skin, sweat or body oils cling to weavings, and since they do not know who will buy the rug or what will be done with it, they have periodic ceremonies for protection from evil.\textsuperscript{94}

These beliefs are reflected in Navajo sayings or “taboos” (\textit{yii-yahs} again), e.g.: “Don’t burn blood from a nosebleed — you’ll have headaches - your head will split.”\textsuperscript{95} “Don’t touch a human bone — The bad spirits will get after you.”\textsuperscript{96} “Don’t throw hair or fingernails on the ground when you cut them -- A witch can use them to harm you.”\textsuperscript{97} “Don’t spit anywhere - especially at night — The witches will use it.”\textsuperscript{98}

Do Navajo beliefs about the body, the fact that genetic materials are part of the body and that what can be done to cells has an actual impact on individuals and their relatives deserve respect, even given the epithet that such beliefs are “superstitious”? Apparently the scientific community thinks so, because the “Model Ethical Protocol for Collecting DNA Samples” of the North American Regional Committee of the Human Genome Diversity Project specifically acknowledges the Navajo beliefs outlined above and requires assurances to subjects and groups from whom materials may be taken that such will not be used for bad purposes and that no

\begin{footnotesize}
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\item \textsuperscript{92} \textit{Id.}, at 239. For another discussion of these connections, see, Maureen Trudelle Schwarz, \textit{Snakes in the Ladies Room: Navajo Views on Personhood and Effect}, 24(3) AMERICAN ETHNOLOGIST (1997).
\item \textsuperscript{93} Haile, \textit{supra} n.79, at 36.
\item \textsuperscript{94} Schwarz, \textit{supra} n. 89, at 111-112.
\item \textsuperscript{95} ERNIE BULOW, NAVAJO TABOOS 127 (1991). Bulow got some criticism from Navajos for his collection of Navajo “taboos,” which are sayings school children related to Bulow when he taught school which he collected and published. There are also criticisms of the cartoons in the book which illustrate the sayings. Despite that, I have seen Navajo advocates cite Bulow’’s book for Navajo common law principles in court, illustrating the fact that values can be carried and related in folk sayings. On one level, they can be said to be legal maxims.
\item \textsuperscript{96} \textit{Id.}, at 201. This relates to the Navajo concept that illness can be caused by “contagion” or contact with things of the dead.
\item \textsuperscript{97} \textit{Id.}, at 210.
\item \textsuperscript{98} \textit{Id.}
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witchcraft is involved. While those are only “guidelines” and an “ethical protocol,” there might be some enforcement possibilities.

Haile says that a Navajo’s clan “owns” an individual Navajo, and Schwarz indicates that the improper disposal of body parts and substances can have deleterious consequences to both the individual and his or her “kin” (which would include clan members). Therefore, do Navajo clans, as clans or acting through the Navajo Nation government, have property or other rights to genetic materials which must be observed? Thus far, our discussion has addressed Navajo common law principles, but there is also a role for Navajo Nation government in this process as the representative of individual Navajos and their clans. The clan concept is related to mitochondrial DNA research, because it traces female lineage. It is interesting to read about when and from where Navajos may have gotten their female “X” haplogroup membership, traced by mitochondria, because that concept is found in Navajo culture. Navajo clan concepts in fact come from the belief that Changing Woman, the “inner form” of Mother Earth, created the first people and the four original Navajo clans from skin rubbed from the surface of Her breast, back, shoulders, sides, and arms. Navajos are matrilineal, which means that they trace their primary clan membership through their mothers, and there was an original clan mother for each clan. Navajos recognize non-Navajo clan mothers and clan origins in clan names, such as the “Flat Foot People-Pima Clan,” the “Ute People Clan,” the “Zuni Clan,” and the “Mexican Clan.” Therefore, there is nothing unusual or mysterious about the notion of an original clan mother coming from another people. Navajos are precisely “Navajo” because of such relationships.

Therefore, there are principles of Navajo common law which apply to the problems framed above. The question is, then, what can be done with them.

THE WEIGHT AND APPLICATION OF NAVAJO COMMON LAW

The difficult question is what can be done with statements of Navajo common law to the effect that there are Navajo concepts of intellectual property rights, there is clan ownership of clan members, with an interest in the proper disposition of body essences, and there are certain cautions and prohibitions regarding the use of body materials. There are different levels of inquiry for this subject: (1) the legal recognition of Navajo common law, (2) international human

99 North American Regional Committee, Human Genome Diversity Project, Model Ethical Protocol for Collecting DNA Samples, 33(5) HOUSTON L. REV. 1431 (1997); <<http://www.stanford.edu/group/morrinst/hgdp/protocol.htm>> (Visited on May 31, 2001). Whose definition of “witchcraft” would apply in using the protocol? What assurances can the researchers offer that in fact, genetic material would not be used to summon powerful beings to harm the person or clans whose material is used?

100 Many years ago, when I was a “real” lawyer who litigated, I did some research which concluded that medical ethics standards could be enforced in court, e.g. suits against physicians for failing to provide medical records. I don’t have time to research this at this juncture, but the Model Ethical Protocol might provide leverage in litigation.

101 Schwarz, supra n.87, at 63. In this context, “inner form” means that Changing Woman is the spirit of the Earth.

102 SAAD AHAAH SINIL DUAL LANGUAGE NAVAJO-ENGLISH DICTIONARY 3-4 (Rough Rock Demonstration School, 1986) (organization and names of Navajo clans).
rights genetic and property law principles, (3) the basic principle of (American) due process and (British) principles of fundamental justice that the state and its actors must follow their own law, and (4) emerging concepts of social norms theory and practice.

The first principle is simple enough: Beginning with a Spanish royal proclamation issued in 1555, and as recent as 1990 in a United States Supreme Court decision, Indian law is accepted as a recognized body of “law,” and its principles are binding upon the United States and its States.\textsuperscript{103} Indian customary law is also recognized as having legitimacy in the Indian Tribal Justice Act of 1993.\textsuperscript{104} The problem, however, is that instances of Indian customary law being enforced in state or federal courts are rare, and despite the ancient and fundamental principle that traditional Indian law is “law” and must be enforced, we can wonder what mental gymnastics non-Indian courts might use to avoid the application of Indian common law principles. There is an additional problem of the general lack of Indian court jurisdiction over off-reservation defendants who abuse Indian rights.\textsuperscript{105}

There are some emerging international law rights. For example, UNESCO adopted a Universal Declaration on the Human Genome and Human Rights in 1997,\textsuperscript{106} and the U.N. Working Group on Indigenous Populations has attempted to set “standards” for human genome diversity research and Indigenous Peoples.\textsuperscript{107} The Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore of the World Intellectual Property Organization met in Geneva, Switzerland from April 30 through May 3, 2001 to discuss some of the issues being explored in this roundtable.\textsuperscript{108} Article 12(2) of the proposed Declaration on the


\textsuperscript{104} One of the legislative findings in the Act is that “traditional tribal justice practices are essential to the maintenance of the culture and identity of Indian tribes and to the goals of this chapter.” 25 U.S.C. Sec. 3601(7) (1999).

\textsuperscript{105} The usual due process jurisdiction question is whether the defendant has any ties with the geographic jurisdiction (e.g. far-distant or foreign research facilities which have little or no contact with a given Indian nation), and Indian nations have the distinct problem of a lack of jurisdiction over non-Indians who act outside Indian Country. See, e.g., Hornell Brewing Co. V. Rosebud Sioux Tribal Court, 133 F.3d 1087 (8th Cir. 1998) (Indian nation court had no jurisdiction over a brewing company that marketed “Crazy Horse Malt Liquor” thereby defaming that traditional leader, who did not drink. This was an intellectual property case).


\textsuperscript{107} Supra, n. 58.

\textsuperscript{108} However, it appears from a working paper prepared by the secretariat that indigenous rights to human genome patents were not on the table — only “traditional knowledge and folklore.” Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore, Matters Concerning Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore — An Overview (March 16, 2001). However, the document recognizes the binding nature of traditional indigenous law. \textit{Id.}, p. 8, par. 18 and p. 34.
Rights of Indigenous Peoples would require states to return cultural and other property to Indigenous Peoples which is obtained in violation of their laws, traditions and customs.\textsuperscript{109} The difficulty with these instruments lies in the fact that they are not statements of “positive” international law, i.e. treaties or conventions. It can be argued that they are accurate statements of existing international customary law, but experience shows that while the United States Constitution recognizes international customary law, it has not fared well in the U.S. courts.\textsuperscript{110} It is not doing well with the United States Department. In November 2000, Article 12 of the proposed Declaration on the Rights of Indigenous Peoples, above, was debated in Geneva, and I was present. The year 2000 assembly of the U.N. working group was particularly outrageous and ridiculous, because the state members (and most particularly the United States, Canada, Australia and New Zealand), fearing publicity, criticism, and making fools of themselves (as they usually have), were permitted to caucus separately. One of the matters of contention over the past several years has been the practice of attempting to insert brackets into the proposed text to signal language a given state wants stricken or added. The states went into caucus and anonymously prepared texts to delete or add language, returning to the assembly room to propose changes without the indigenous caucus knowing who was proposing what. The document bracketed the language in Article 12(2) which would base indigenous property rights in indigenous law. Lynn Secade, of the State Department delegation, talked with me and said that basing property rights in indigenous customary law or tribal court decisions could cause many problems, and I replied that the article was solidly based in international law, coming from a decree of Holy Roman Emperor Charles V and “Jane the Insane of Spain” issued on August 5, 1555 which said that the “good laws of Indians” must be “honored and obeyed.” I said that the principle was already international customary law, but she did not sound convinced.\textsuperscript{111}

There is an elementary principle of American due process of law and British (including British Commonwealth member) law that governments must follow their own law. If that law, as a matter of either municipal (national) or international law, says that the laws of indigenous


\textsuperscript{110} For a discussion of how international customary law should be treated and an example of a loss using international customary law, see, James W. Zion, North American Indian Perspectives on Human Rights, in HUMAN RIGHTS IN CROSS-CULTURAL PERSPECTIVES: A QUEST FOR CONSENSUS 191, 192, 214 n. 8 (Abdullahi Ahmed An-Na’im, ed. 1992).

\textsuperscript{111} One of the amazing things about the gatherings in Geneva to play pitty-pat with the basic rights of Indigenous Peoples is the woeful ignorance of the state delegations of the actual history of the international customary law of Indigenous Peoples. We need to say that what is in the proposed declaration is the law; not that its principles should be the law. At an evening social event following the first day of the roundtable, a participant challenged me on my assertion that early Spanish and canon law established customary principles in international law. The answer isn’t that “customary law” is what countries do — one basis for customary law is the writings of jurists, such as Vitoria, Las Casas, Vattel, and others, who laid out the basis for customary international law. When we were in Geneva in November 2001, a State Department official moaned, “We want jurists that we like!”
peoples must be observed and that the legal determinations of indigenous nations must be honored, then that should be sufficient. The essential argument for Indigenous Peoples is that “it’s your law and not ours, so why don’t you follow it?”

We are used to claiming rights using legal discourse in the United States, and given recent political changes and influences on the federal court system, we (referring to Indians and their supporters) are now used to losing. Is there another way? There are emerging perspectives of the idea of social norm effects upon public policy. For example, Professor Arti Kaur Rai of the University of San Diego Law School feels that while the academic community has the ability to patent human genome research under current law, there are normative constraints within the academic community which may compel such institutions to forego patents. Attorney David J. Stephenson, Jr. recently proposed the use of contracts and licenses as alternative mechanisms to protect Indian intellectual property, and given that contracts and licenses are consensual documents, social norms theory could be used to compel them. By “social norms theory,” I mean that there are new understandings of ways to use norms, values and mores to persuade others to change behavior, or refrain from doing things, in a non-coercive and non-legal manner. While the word has negative connotations, it is the world of “propaganda.” Put another way, it is “advocacy,” and social norms theory and new approaches to law may give us clues for more effective advocacy.

The idea of social norms theory (which is being explored to curb excessive college student drinking) is that social norms are an alternative means of regulating conduct. Social norms which are enforced by community institutions can be an alternative to legal remedies. One means of social norm enforcement which Indians can and must use (because they may have no realistic alternative) is stigma for corporate and academic misconduct. The idea behind norm application for behavior modification is to make people do the right thing without thinking about

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113 Supra, n. 64.


117 See, Darlene R. Wong, Stigma: A More Efficient Alternative to Fines in Deterring Corporate Misconduct, 3 CAL. CRIM. L. REV. 3 (2000). Wong and others writing in this field also suggest that positive reinforcement in praising those who are responsible is very effective. This is something to consider when basing arguments on international and institutional codes of ethics or behavior.
it, and to do that, you must engage them in meaningful dialogue.\textsuperscript{118} In sum, we must identify all the strategies and tactics that are available for human cooperation to honor the rights of Indians.\textsuperscript{119}

The academic community is concerned about our issues; or at least it is discussing them.\textsuperscript{120}

There appears to be some tension about indigenous demands, to the effect that while indigenous points of view should be listened to, there are concerns about the balance of western “rights” (property, freedom of speech, academic freedom, etc.) and indigenous demands. One of the basic points, when it comes to western concepts of intellectual property rights, is that they are a grant from a state or sovereign, and indigenous peoples and disadvantaged nations had no participation in the formation of such rights.\textsuperscript{121} The established order is being questioned,\textsuperscript{122} and there are fora for indigenous people to make their position known.\textsuperscript{123} We are up against an intellectual property regime in the United States which advocates the patenting of “everything under the sun made by man,”\textsuperscript{124} and we need to make it known that such is not acceptable. My survey of the literature and the debates tells me that if we are to be effective, either in legal arenas or in the process of changing people’s minds through social norm theory, we must (1) have a clear message, (2) justify our position, (3) communicate it in an effective way using the norms of our audience (e.g. academia), and (5) get in the public eye. A great deal of information coming from the news media is sensational and preys on the “if it bleeds it leads” and

\textsuperscript{118} There is a fascinating scientific study of the process. Joshua M. Epstein, \textit{Learning to be Thoughtless: Social Norms and Individual Computation}, The Brookings Institution and Santa Fe Institute (Jan. 2000); in publication in \textit{COMPUTATIONAL ECONOMICS}.


\textsuperscript{120} \textit{See, e.g.}, Michael F. Brown, \textit{Can culture be copyrighted? (Anthropology and the Indigenous)}, 39(2) \textit{CULTURAL ANTHROPOLOGY} 193 (1998) (Discussion article and extensive responses by other academics); Michael F. Brown, \textit{Cultural Records in Question: Information and Its Moral Dilemmas}, 21(6) \textit{CULTURAL RESOURCE MANAGEMENT} 10 (1999) (National Park Service). (Brown extols freedom of speech and property rights in light of Indian demands regarding intellectual property use, but he is obviously disturbed — the very foundation needed to apply social norms theory).


\textsuperscript{123} \textit{See, e.g.}, NGO Forum, UN Fourth World Conference on Women, \textit{Beijing Declaration of Indigenous Women} (1995) (including positions on human genome research).

controversy appetites media executives think we, the public, like. We need to be articulate, precise, and to the point. Most of all, we need to reach out to Indian country and involve the elders and medicine people as the keepers of the tribal encyclopedia. Their voice and ability to express Indian common law is the most important aspect of this debate, because we are talking about their bodies, the prevention of illness (from misuse of genetic materials), and their very identities.

CONCLUSION

This paper has attempted to articulate the issues arising from human genome research and intellectual property law to translate them into a Navajo context for discussion. While there was not sufficient time to interview elders and medicine people for the roundtable, a review of the literature shows that there are Navajo common law concepts of property and individual rights which are pertinent to the debate. One of them is the standing of Navajo clans to object to genome research. Traditional Indian law is recognized in western international law and American municipal law, so that Navajo common law principles should apply. If nothing else, non-Indians should recognize Navajo common law, because their law requires them to do so. Failing that, we should understand the workings of social norm theory better, and use its principles for debate advantage. If we articulate the Indian common law position well and communicate it effectively, there are possibilities to persuade people within the international community, academia, and a corporate climate which fears adverse publicity.

125 Cross-cultural respect is required: While non-Indians might scoff at the possibility that there is an actual linkage or “effect” between the misuse of genetic materials and resulting illness, many indigenous groups believe that there is a connection. An intentional abuse of effect is witchcraft.

126 I did discuss some of the issues with Philmer Bluehouse of the Dine’ Medicine Man’s Association and with Navajo graduate student Eulynda Toledo-Benally, who is doing work in Navajo women’s identity. They said that if you want to know what Navajos think about the misuse of genetic material, you should ask Navajos. Of course, Phil and Eulynda are not responsible for any mistakes I made if I “got it wrong” here.