

CONFIDENTIAL

From: James Peacock (Chair) for Task Force: Janet Chernela, Linda Green, Ellen Gruenbaum, Phillip Walker, Joe Watkins, Linda Whiteford  
To: Louise Lamphere, President of AAA, and Executive Board of AAA  
Subject: Recommendation for Investigation of *Darkness in El Dorado*  
Date: January 21, 2001

EXECUTIVE SUMMARY

This Task Force was charged to consider allegations in Patrick Tierney's *Darkness in El Dorado* (and related material) in order to recommend to the AAA President and Executive Board whether and, if so, how an investigation of these allegations be carried out by the AAA.

The Committee recommends that the AAA carry out an investigation.

This investigation would entail three levels:

- a) Certain allegations seem to be without foundation, and reports challenging these should be noted. One such allegation is that a measles epidemic among the Yanomami was caused by vaccination.
- b) Other allegations need to be investigated, and the results of investigations by other bodies should be ascertained. One major allegation that begs investigation is that there was a pervasive and enduring pattern over a period of more than thirty years of inadequate concern for the ways in which intrusions from outsiders (including scientists, anthropologists, and journalists) may have harmed the Yanomami.
- c) General issues suggested by this case should be developed for consideration by the Committee on Ethics and the Committee on Human Rights as well as by anthropologists and others in the wider society.

Who should carry out the investigation? Various names are suggested.

By when? A preliminary report should be due by the November meeting of the AAA Executive Board.

With what budget? Procedure is given by which this can be estimated by AAA office.

What actions will result? The investigation we recommend may result in the discovery of clear evidence of unethical behavior on the part of anthropologists. Since the AAA ethics process does not include sanctions, recommended actions are a report to the AAA membership and to the public and recommendations to the ethics committee.

We also recommend that those charged with the investigation consider the historical and professional context of the activities being investigated, specifically, the evolving practices and ethical guidelines in anthropology and prevailing practices at the time of any given action examined.

## DETAILED REPORT

### CHARGE

Our charge, as stated by the AAA Executive Board, was as follows:

The American Anthropological Executive Board has resolved to take the following actions on allegations made in *Darkness in El Dorado*:

Establish a Special Ad Hoc Task Force of seven members, six of which will be appointed by the AAA President from among members of the Committee for Human Rights, chaired by AAA Past President, James Peacock, and charged to:

- A. Examine assertions and allegations contained in *Darkness in El Dorado* as well as others related to the controversy over this document;
- B. Review the AAA's statements on ethics and human rights;
- C. Consult such other sources (documents and individuals), and coordinate with organizations potentially pursuing investigations, including those in Brazil and Venezuela;
- D. Come to conclusion as to which specific issues, if any (1) are deserving of an in depth investigation by the AAA; and (2) can realistically be investigated by the AAA;
- E. Suggest what kinds of evidence might be obtained or individuals interviewed on each issue;

- F. Propose any budget (including expenditure categories and dollar amounts) that might need to be committed to conduct such investigation;
- G. Recommend by whom such an investigation should be conducted; and
- H. Report its findings, conclusions, and recommendations to the Executive Board no later than its February 2001 meeting.

## PROCEDURE

The six-person task force, three members from the Human Rights committee and three from the Ethics committee, was appointed by President Lamphere in December 2000. The Task Force thus comprised seven members, including Chair. The Chair assigned two persons to report on each of the three sections in Tierney, to note allegations and rebuttals, if any, by others, and suggest recommendations to the AAA. Each member was also assigned a web site to examine, and some researched and submitted further information including information about ongoing investigations by colleagues in Venezuela and Brazil. Reports are appended. PLEASE SEE INDIVIDUAL REPORTS AND RECOMMENDATIONS IN ADDITION TO SUMMARY REPORT.

On January 13 and 14, 2001 the committee met at AAA headquarters to discuss all reports and information and formulate recommendations. (As Chernela and Whiteford could not attend this meeting, the chair met with them prior to the meeting; Chernela also joined the discussion by telephone during the January 13 meeting.)

Reports were revised in light of this discussion and drafts were shared among Task Force members for comment during the period January 14-21. The present report was submitted to the AAA Executive Board, President, and Executive Director on January 21 for perusal prior to the February 2-3 meeting of the Executive Board.

(Note: In order to meet the deadline of January 22 for circulation of reports to the Executive Board, this report is submitted without explicit approval by all members of the Task Force of this final draft. All have indicated approval of the basic formulation of recommendations reflecting discussion, but not all are available at this date for explicit approval of current language [for example, one is out of the country and another is involved in a family situation; both have indicated willingness to "trust"

this formulation to reflect their previous input]. Any additional individual comments will be conveyed to the Executive Board and President prior to or at the February 2-3 meeting.)

## RECOMMENDATIONS:

- I. AN INVESTIGATION SHOULD BE CONDUCTED. After considering arguments against and in favor of conducting an investigation, the task force agrees that the AAA should conduct an investigation. Arguments against concern both ends and means: that the end is not significant, e.g. that the issues are not important, or that the means are insufficient, e.g. that the AAA cannot feasibly conduct an appropriate investigation. Arguments in favor also concern ends and means and conclude that the end is significant, that the issues are important, and that the means are sufficient, that the AAA can feasibly conduct an investigation as defined below. The Task Force takes this latter position and therefore recommends an investigation of the following type.
- II. THE INVESTIGATION SHOULD INCLUDE THREE LEVELS: a) allegations that appear to be unfounded, hence are not recommended for further investigation; b) allegations which should be investigated; and c) implications for future practice.
- III. PERSPECTIVE

Patrick Tierney's provocative book, *Darkness in El Dorado*, has contributed a valuable service to our discipline by sparking a broad reexamination of some of the most widely-used research in our field, that on the Yanomami. The book has focused us particularly on ethical responsibilities of anthropologists and other scientists with whom we collaborate. Tierney has drawn attention to disruptions of human rights that anthropologists, film-makers, and others may have caused or exacerbated.

Because Tierney's book has elicited so much public controversy, it is the responsibility of the AAA to address the allegations that are most troublesome; to identify whatever problems occurred; to offer criticisms or responses; to critique ~~allegations~~ allegations that are not supported by the weight of evidence; and to demonstrate to the public that we do take seriously our responsibilities to the people we study.

Most importantly, we see this as an opportunity to address key questions about how anthropologists should conduct their work with people who may be isolated, disadvantaged, or both.

- IV. GUIDING CODES

Guiding codes included the Code of Ethics of the American Anthropological Association (approved in 1998) and the Declaration on Anthropology and Human Rights (adopted by AAA membership in 1999) as well as previous ethics codes and other human rights declarations (see below). Key stipulations in the current Code of Ethics are these:

A.1 Anthropological researchers have primary ethical obligations to the people, species, and materials they study and to the people with whom they work. These obligations can supersede the goal of seeking new knowledge, and lead to decisions not to undertake or to discontinue a research project when the primary obligation conflicts with other responsibilities, such as those owed to sponsors or clients. These ethical obligations include: To avoid harm or wrong, understanding that the development of knowledge can lead to change which may be positive or negative for the people or animals worked with or studied...

A.2 Anthropological researchers must do everything in their power to ensure that their research does not harm the safety, dignity, or privacy of the people with whom they work, conduct research, or perform other professional activities...

A.4 Anthropological researchers should obtain in advance the informed consent of persons being studied...it is understood that the informed consent process is dynamic and continuous; the process should be initiated in the project design and continue through implementation by way of dialogue and negotiation with those studied...

A.5 Anthropological researchers who have developed close and enduring relationships (i.e. covenantal relationships) with either individual persons providing information or with hosts must adhere to the obligations of openness and informed consent, while carefully and respectfully negotiating the limits of the relationship.

A.6 While anthropologists may gain personally from their work, they must not exploit individuals, groups, animals, or cultural or biological materials. They should recognize their debt to the societies in which they work and their obligation to reciprocate with people studied in appropriate ways.

Relevant passages from the Declaration on Anthropology and Human Rights include “As a professional organization of anthropologists, the AAA has long been, and should continue to be, concerned whenever human difference is made the basis for a denial of basic human rights, where “human” is understood in its full range of cultural, social, linguistic, psychological, and biological senses.”

Both the Code and the Statement add references to codes and statements by other anthropological organizations and by other bodies. Reference is made below to previous codes by the AAA and other bodies and to the evolution of codes prior to these adopted in 1998 and 1999. This evolution includes:  
1949 “Report of the Committee on Ethics, Society for Applied Anthropology” Margaret Mead, Chair;  
1967 “Statement on Problems of Anthropological Research and Ethics, Adopted by the Council of the American Anthropological Association, March 1967;  
1971 “Statements on Ethics: Principles of Professional Responsibility, Adopted by the Council of the American Anthropological Association, May 1971 (as amended through November 1976).

While various facets of the codes are pertinent, the key point concerns proper “relations with those studied,” a point that was apparently first emphasized in the 1971 statement. This specific relationship is that between the anthropologist and those studied, so far as the American Anthropological Association is concerned, for its domain is primarily anthropology and anthropologists. Broader contexts include other actors with whom anthropologists collaborate in fieldwork, such as other scientists or journalists. Still broader contexts include other actors and forces that impact “those studied,” such as businesses, tourists, missionaries, other indigenous groups and governments. The Statement on Human Rights becomes relevant in this broader context insofar as it calls on anthropologists to be alert to impact of these wider forces, whether or not anthropologists themselves are involved directly.

Emphasis, then, is on the Ethics code pertaining to anthropology’s and anthropologists’ relations to those studied. One general question the investigative committee should explore is what codes existed and were of influence during the history of the research practices investigated.

## V. RECOMMENDATIONS FOR EVALUATING ALLEGATIONS AND IMPLICATIONS

### A) ALLEGATIONS THAT APPEAR TO BE UNFOUNDED

It is recommended that the investigative committee compile and survey previous and concurrent allegations as well as evidence adduced pertaining to them (see web site in Appendix C) and other investigations (see contact names in Appendix B). It is not recommended that the committee further investigate allegations that appear to be unfounded unless new information or questions emerge. Such allegations include the charge that measles were caused by vaccinations.<sup>1</sup>

### B) ALLEGATIONS THAT APPEAR TO MERIT CONSIDERATION

These allegations should be investigated in the following ways. First, survey existing literature (including the web sites noted in Appendix C) and other investigations (see names of contacts in Appendix B). In addition, investigate each specific allegation as recommended below.

## 1. FIELDWORK PRACTICES

The committee identified as an area of inquiry with regard to fieldwork practices allegations of a pervasive and enduring pattern of inadequate concern and sensitivity to the well-being of the Yanomami people by anthropologists in particular and by journalists, scientists, and other non-Yanomami.

- a) ALLEGATION: Jacques Lizot had sexual relations with Yanomami minors.<sup>2</sup>  
RECOMMENDATION: Request that Venezuelans inquire from Yanomami about this alleged behavior. Compare this to Lizot's own admission, allegedly reported in the international press, that he had sexual relations with Yanomami teenagers.
- b) ALLEGATION: Violence among the Yanomami was exacerbated by fieldwork practices including staging films<sup>3</sup>, distributing steel gifts<sup>4</sup>, collecting genealogical information by playing one faction against another<sup>5</sup>, and paying Yanomami for revealing names.<sup>6</sup>  
RECOMMENDATION: Check Chagnon's own reports. See comments by ethnographic filmmakers. Inquire from Venezuelan colleagues.

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<sup>1</sup> Tierney, pp. 53-82

<sup>2</sup> Tierney, pp. 125-148

<sup>3</sup> Tierney, pp. 83-106

<sup>4</sup> Tierney, p.51

<sup>5</sup> Tierney, pp. 33-35

<sup>6</sup> Tierney, p. 46

Consider contexts: To what extent were practices necessitated by circumstances? Were similar practices used by other fieldworkers working under similar conditions at the time? Is giving of steel gifts common practice in the Amazon among anthropologists, missionaries, and others? Under what circumstances were they given? Were gifts used to express relations of power? If so, how?

- c) ALLEGATION: Large expeditions of scientists, filmmakers, journalists have come to the Yanomami during the past half-century, and these groups are alleged to have spread disease and disrupted Yanomami life.<sup>7</sup>

RECOMMENDATION: Check the record to verify presence of the alleged expeditions. Inquire from the anthropologists involved in these expeditions if they considered procedures to diminish the negative impacts of their activities. Also inquire concerning the extent to which they abided by quarantine requirements that existed at the time and inquire concerning the possibility that different and possibly conflicting quarantine requirements were imposed by different Venezuelan government agencies. Did researchers and expeditions abide by quarantine requirements imposed by the government agency that sponsored their work? Did they bypass requirements for permits? Did government agencies with competing jurisdictions vary in requirements for permits? What kinds of permissions and agreements did visitors negotiate with the Yanomami? While tracing effects is difficult, what are the verifiable impacts, negative or positive? What positive contributions should be noted? How does this record compare with Tierney's allegations?

- d) ALLEGATION: Napoleon Chagnon allegedly denied medical help to a Yanomami, threatened to burn down a village, and beat two children with a belt. A film crew allegedly watched a woman and child die during a NOVA documentary filmed with the assistance of Lizot.<sup>8</sup>

RECOMMENDATION: Inquire from Venezuelan or other investigations. Were there witnesses? Extenuating circumstances?

## 2. REPRESENTATION: REPORTING OF FINDINGS AND PORTRAYALS OF THE YANOMAMI

ALLEGATION: Portrayals of Yanomami as "fierce" and violent distorts their character<sup>9</sup> and has resulted in mistreatment, as in the Brazilian government policy of dividing them to prevent unified aggression.<sup>10</sup>

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<sup>7</sup> Tierney, p. 29, pp. 186-87

<sup>8</sup> Tierney, p.221

<sup>9</sup> Tierney, pp. 158-59

<sup>10</sup> Tierney, p.160

RECOMMENDATION: Note and refer to debate about Yanomami character including the thesis that murderers multiply, but do not enter into this debate. Inquire from Brazilian and Venezuelan investigations about the alleged division policy. Trace portrayals of Yanomami from 1968 (first edition of *The Fierce People*) to present.

### 3. ACTION ANTHROPOLOGY: EFFORTS TO CREATE ORGANIZATIONS AFFECTING YANOMAMI, TO REPRESENT INTERESTS OF YANOMAMI, AND EFFORTS TO CONTRIBUTE TO THEIR WELFARE

a) ALLEGATION: FUNDAFACI was created as a private biosphere and used as a front to further the gold mining interests of Brewer and by implication, interests of Chagnon.<sup>11</sup>

RECOMMENDATION: Find out what FUNDAFACI was. What was its mission, organization, funding? What was Chagnon's relationship to it? What did it do?

IN ADDITION: Look into the Yanomami Survival Fund<sup>12</sup> and other organizations. Obtain facts about these: what is their stated mission, organization, funding? What have they contributed to the welfare (or detriment) of Yanomami?

b) ALLEGATION: When Yanomami territory was invaded by miners, and when Chagnon's work was used to justify exploitation of the Yanomami and their territory, Chagnon remained silent or otherwise failed to represent adequately interests of the Yanomami.<sup>13</sup>

RECOMMENDATION: Invite Chagnon to give his own account of this situation and of efforts he has made on behalf of the Yanomami. What did other anthropologists do? What might one expect an anthropologist to do?

### 4. PERSONAL GAIN FROM STUDY OF YANOMAMI BY SCIENTISTS, ANTHROPOLOGISTS, AND JOURNALISTS

a) ALLEGATION: Scientists, anthropologists, and journalists including Napoleon Chagnon have gained from studying the Yanomami, while not doing a sufficient amount to improve their living conditions.

RECOMMENDATION: As above; invite Chagnon, Lizot and other researchers who have worked with the Yanomami to provide their perspective on what they

<sup>11</sup> Tierney, pp. 9-10; pp. 187-88

<sup>12</sup> Tierney, pp. 183-189

<sup>13</sup> Tierney, pp. 195-214.

He wrote n. 47!

have taken in comparison to what they have given during their long-term work with the Yanomami. Note reports of Chagnon's rapport and contributions. Regarding scientists and journalists, refer the allegation and question to their professional organizations, inviting them to provide any account they wish.

## 5. MALNUTRITION, DISEASE, AND DISORGANIZATION AMONG YANOMAMI

ALLEGATION: It is alleged that malnutrition, disease, and disorganization among the Yanomami are notable and have worsened since initial contact with scientists, journalists, and anthropologists. It is also implied that ethnographers such as Chagnon and Lizot have contributed to these conditions by failing to acknowledge or address them.<sup>14</sup>

RECOMMENDATION: Inquire from anthropologists currently working among Yanomami and from indigenous organizations as to assessment of current condition. Compare earlier conditions to present. Attempt to assess evidence of impacts of ethnographic research in comparison to impacts of gold mining activities and other external intrusions.

## 6. EXPERIMENTS WITH RADIOACTIVE IODINE

*by Roche in 1978?*  
ALLEGATION: Iodine was administered to Yanomami, violating standards of informed consent and placing subjects at risk without benefit (to them).<sup>15</sup>

RECOMMENDATIONS: Inquire as to whether informed consent was obtained in a way that is comparable to the practices of other anthropologists and medical researchers working at the same time under similar conditions.

Concerning the Atomic Energy Commission, check with Susan Linde, B. Johnson, T. Turner; see investigations by National Academy of Sciences.

## V. IMPLICATIONS FOR FUTURE PRACTICE: ETHICS AND HUMAN RIGHTS

### RECOMMENDATIONS:

Consider the areas proposed by the Executive Board for deliberation by the Ethics Committee, in addition to the following issues:

- 1) Several issues implied by the AAA Code of Ethics are brought into specific relief, notably in relation to the instruction "Do no harm." Consider the following:

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<sup>14</sup> Tiemey, pp. 262-63, p.189

<sup>15</sup> Tiemey, pp. 306-7

- a) What measures could curtail exposure to disease?
- b) Should the admonition against sexual harassment of students be extended explicitly to minors who are subjects of fieldwork? Or is this covered by the current admonition to “not harm the safety, dignity, or privacy” of those studied? What if those within the culture condone sexual relations with minors: does this justify outsiders, including anthropologists, engaging in such relations? Does respecting what someone does imply imitation? Refer to the “Rights of the Child” in the international declaration of Human Rights.
- c) How do “covenantal relations” square with the model of scientific or journalistic expeditions?
- d) How, if one wishes to do no harm, can fieldwork be justified at all? (What relationship may obtain between anthropological fieldworkers and others who are allegedly “doing harm,” e.g. miners, tourists, or other “outsiders” in an indigenous setting? May anthropological fieldwork usefully complement or counteract such intrusions? How?)

*Well & the text*

- 2) The current (1998) Ethics Code admonishes fieldworkers to “do no harm,” while stating that proactive doing good as in “advocacy” is an option but not an obligation.

RECOMMENDATION: Ponder whether to move beyond this limiting obligation, and, if so, how? Specifically consider:

- a) What guidelines could be offered for compensation during fieldwork?
  - b) What guidelines could be offered for compensation after (e.g. foundations, sharing of royalties), whether as an option or an obligation?
- 3) What are the ethical implications of “public anthropology”?
- a) If anthropologists publicize their findings and knowledge, how can they temper exploitation of peoples who are publicized?
  - b) Are there positive opportunities to join public issues and concerns of people studied?
  - c) What are relations between a and b?
- 4) How might deliberations of the Ethics Committee be enriched by those of Human Rights?

- 5) The plight of the Yanomami remains a central concern; what can be done?

## VI. CONTEXTS

**RECOMMENDATION:** In assessing allegations of past behavior and proposals for future guidelines, consider the history and evolution of practices and codes of ethics.

- 1) Compare ethical codes for anthropologists as these have evolved during the last half-century (cf. 1949, 1971, 1998); note the Declaration of Human rights, also formulated a half-century ago and still evolving.
- 2) What were prevailing anthropological fieldwork practices at different points during the last half-century of the Yanomami research? How do these compare with those alleged/documentated?

## VII. SIGNIFIGANCE AND IMPLICATIONS CONCERNING ANTHROPOLOGY

**IMPLICATIONS FOR ANTHROPOLOGY:** Publishers, journalists, and others make a claim that this Yanomami work implies that anthropology as a discipline is at fault.

**ASSESSMENT:** The committee might consider the following points:

1) A large portion of the book is not about anthropology or anthropologists; 2) a large percentage of anthropologists living or having lived are not described in the book; 3) a majority of anthropologists, some assert, have not behaved as those described in the book are alleged to have done; 4) much anthropology and many anthropologists have not pursued the studies described in the book or subscribed to the theories or, indeed, been influenced by these theories or approaches; and 5) the practice and ethics of anthropology have evolved during the time period noted, so the period of the actions must be considered in assessing them. Therefore, the relevance to anthropologists and anthropology is primarily the lessons that can be learned, the principles adduced.

## VIII. FURTHER CONCERNS

**ALLEGATION:** It is alleged that Terrence Turner and Leslie Sponsel acted inappropriately in sending a memorandum regarding Patrick Tierney's allegations.  
**RECOMMENDATION:** This is beyond the scope of the proposed investigation of allegations by Tierney about anthropologists and others impacting Yanomami. The AAA President may wish to discuss with Turner and Sponsel appropriate ways to communicate concerns confidentially.

### **RECOMMENDED PERSONNEL FOR INVESTIGATION:**

We suggest a committee of five, comprised of a member of the Ethics Committee, a member of the Human Rights committee, a physical anthropologist, a cultural anthropologist, and an anthropologist familiar with research among the Yanomami

and neighboring groups. Specifically suggested are Joe Watkins, Chair, Ethics Committee; Barbara Johnston, Chair, Human Rights Committee; Mark Weiss, physical anthropologist; Janet Chernela, a cultural anthropologist familiar with research on Yanomami; and Laura Nader, a cultural anthropologist. Other colleagues and other investigations can, of course, be consulted.

#### RECOMMENDED SCHEDULE OF INVESTIGATION:

An interim report should be submitted to the Executive Board of the AAA by its November 2001 meeting.

#### ESTIMATED COST

An initial meeting of the committee to formulate its plan (Spring 2001), a mid-term meeting to assess results (Summer 2001), and a meeting to discuss the report prior to submission (Fall 2001) are anticipated. In addition, communication costs will be incurred to conduct and report inquiries and to formulate a report. The AAA staff will estimate a cost of two to three meetings of five people and of communication costs implied by the above recommendations and/or committee plan.

#### RECOMMENDED OUTCOME OF INVESTIGATION:

Given the structure of the AAA and its Code of Ethics and process, formal sanction is not a possible outcome; the AAA is not a licensing organization and its ethics process does not include a judicial procedure. Instead, a possible option is a report to the membership and to the public concerning the results of the investigation. The purpose of such a report is, first, to bring questionable anthropological practices to the public light and also to state strongly--if this is true--that the majority of us do not abide by such practices. Therefore, it is recommended that if an investigation is conducted, findings be communicated to the membership and, in some form, to various others including a) Yanomami indigenous organizations and others concerned with human rights and the rights of indigenous peoples; b) university administrators, granting agencies, and others who determine whether anthropologists gain support for their work; and c) the media, who have reported and publicized the book. Especially in regard to informing the media, it is recommended that any communications be in consultation with the AAA press office and legal counsel.

#### APPENDICES

- A) Reports by Task Force Members
- B) Names of organizations and individuals to be contacted
- C) Names of Web sites

D) FURJ Medical Report

E) Charge to Committee on Ethics by AAA Executive Board

## APPENDIX A: INDIVIDUAL REPORTS BY TASK FORCE MEMBERS

Reports on Tierney, Section 1: Chernela, Whiteford, Watkins (see fax)

Report on Tierney, Section 2: Walker

Report on Tierney, Section 3: Green, Gruenbaum

Report to the Ad Hoc Task Force on *Darkness in El Dorado*

L.M.Whiteford

### Summary Statement

Along with others on the Task Force, I was asked to review Part 1 of Patrick Tierney's book Darkness in El Dorado, and also to review the materials presented on the UC Santa Barbara website. Having done so it is still difficult to ascertain where fault lies between the conflicting stories and biases in the accounts provided by Tierney and Tooby (on the UCSB website). The supplementary information provided in appendices I-XIV on UCSB website offer greater technical detail concerning a range of topics from measles to anthropological film and are very useful and should be carefully read. Based on these sources, the Tierney account appears to follow a pattern of avoidance of details that contradict the author's main accusations, exaggeration, and hyperbole. It is more difficult to assess Chagnon's actions using these same accounts because they did not include his actual writings, but rather descriptions and counter-descriptions of his alleged actions.

The materials under consideration include a number of accusations and counter-accusations that will be reviewed in greater detail below. However, given the to the committee, of greatest concern are the accusations:

1. that Chagnon and Neel are directly implicated in the introduction and spread of the measles outbreak;
2. that half of one of the villages was used as a control group and not vaccinated;
3. that Chagnon's actions with the Yanomami were in disregard of the AAA Code of Ethics guiding research with human subjects;
4. that Chagnon artificially manipulated Yanomami for dramatic effect in the creation of his films.

The following quotes are taken from Tierney's book and deal with Chagnon's alleged actions or are direct quotes from Chagnon's writing that raise concerns not addresses in the rebuttals on the UCSB website. Part I of the book uses the first three chapters to set the stage for Tierney's accusations of Neel, Chagnon, Asch and others. Chapter 4 in particular focuses on Neel; chapter 5 deals with the measles epidemic; chapters 6 and 7 with issues primarily related to the films Chagnon and Asch created. Neel's role is not the focus of this committee and therefore is not a focus on my response. The carefully detailed, and to me, convincing rebuttal of Tierney's primary accusations about the spread of measles written by Dr. Samuel Katz (appendix II included on the UCSB website) is sufficient to negate further comments and should be included in any report by this committee. However, the question of whether or not only half of one community was vaccinated is insufficiently responded to. Many of the points Tierney raises about the filming process and consequences are also appropriately responded to by authorities in those areas and are included as appendices V and VI in the UCSB website and require no further comment from this committee member. In addition, while the role of James Neel is not included in the purview of this committee, I believe that Susan Lindee's comments and email to Slate magazine (included as Appendices III and IV on the UCSB website) should also be included in this committee's report as they directly refute charges about the entire process of the mitigate efforts during the measles epidemic.

I include these quotes because I believe they may suggest a pattern of behavior that may warrant closer inspection.

Review of statements in Part 1 of *Darkness in El Dorado*:

- Chagnon was “able to skirt normal peer review...”(p.XXII)
- That Chagnon and Cecilia Matos “...planned to control Yanomamiland...”(p.9)
- That Chagnon created villages and alliances for the purpose of filming (p.14)
- That the AEC used the “Yanomami as a control group, comparing their rate of genetic mutation with that of the survivors of the atomic bombs in Hiroshima and Nagasaki”(p.16) and by implication that the Chagnon and Neel research was also funded by the AEC for the same purposes.
- “The [measles] epidemic started from the same village where the geneticist James Neel had scientists inoculate the Yanomami with a live virus that had proven safe for health American children but was known to be dangerous for immune-compromised people”(p.17).
- “The epidemic seemed to track the movements of the vaccinators”(p.17).
- “Chagnon arrived with a boatload of machetes and axes, which he distributed within twenty-four hours” (p.30).
- “He [Chagnon] introduced guns, germs and steel across a wide stretch of Yanomamiland - and on a scale never seen before”(p.30) .
- Referring to Chagnon’s methodology for eliciting names, Tierney writes: “He [Chagnon] resorted to ‘tactics such as bribing children when their elders were not around, or capitalizing on animosities between individuals”(p.33).
- Citing Chagnon’s description: “If the informants became angry when I mentioned the new names I acquired from the unfriendly group, I was almost certain that the information was accurate” (p.33).
- “These anthros come, they take pictures, collect blood, carry them off to their countries, sell them, and make money....and we get nothing”(p.48).
- Tierney quotes Chagnon as writing: “I have been chased around the village on a number of occasions by irate people wielding clubs and firebrands, people who were very upset because I was attempting to photograph specific events – particularly cremations”(p.84).
- “But the Patanowateri refused to send a messenger to Mahekoto-teri, which forced Chagnon to assume the role”(p.92).
- According to Tierney, Chagnon was concerned about the potential consequences of fostering an alliance between two groups when he wrote: “This was taking a risk in spades...I was also worried that I might be a contributor to an enormous disaster”(p.112) but he went ahead.

As Joe Watkins points out in his report to the committee, by 1967 the American Anthropological Association included language in the Principles of Professional Responsibility to focus on the protection of the interests of people studied. By 1971, the Council of the American Anthropological Association included the following language: It is a prime responsibility of anthropologists to anticipate these [misunderstandings and conflicts] and to plan to resolve them in such a way as to do damage neither to those whom they study, nor insofar as possible, to their scholarly community. These statements apply to much of the time period during which Chagnon was working with the Yanomami and would be appropriate to his research during that time.

When the incomplete information, misinformation, exaggerations and omissions are removed from the Tierney text (as much of it is through the rebuttals provided by Katz, Lindee, Hill, Ruby and others) there remains the appearance of disregard and disrespect for the Yanomami perpetuated by Chagnon and others. The AAA may want to use the allegations against Chagnon as an opportunity to further the discussion about anthropological obligations to communities studied, the responsibility of researchers engaged in long-term research, and the practice of informed consent in international research. We would be wise to remember Elvi Whitaker’s comments about the ethical disjunctures intrinsic to any discipline that specializes in eliciting information people are reluctant to divulge. Anthropologists are very good at stealing people’s secrets and the Association should recognize the ethical quandaries in which many anthropologists find themselves and provide greater guidance to them.

While the AAA should be applauded for its continued insistence that the phrase “paramount responsibility of the anthropologist “ should be those studied, inserted in the 1971 version of the Principles of Professional Responsibility was retained in the 1990 revision (“First responsibility to those who lives and cultures are studied”), students and researchers need greater guidance. A fellow professional anthropology association, The Society for Applied Anthropology whose first statements on professional ethics were promulgated in 1949, lists as their first responsibility:

1. *To the people we study we owe disclosure of our research goals, methods and sponsorship. The participation of people in our research activities shall only be on a voluntary and informed basis. We shall provide a means throughout our research activities and in subsequent publications to maintain the confidentiality of those we study...*



*Charles Brewer worked to block indigenous land rights:*

"As Brewer became one of Venezuela's biggest garimpo entrepreneurs, he also became the gold rush's most outspoken advocate-and the leader of a political movement that aimed to block recognition for indigenous land rights."

*Charles Brewer used scientific expeditions as a cover for gold mining expansion:*

"Science was Brewer's ally, in his mining ventures. He shuttled scientists from the Smithsonian, the American Museum of Natural History, and the Royal Geographical Society to Cerro Neblina, the highest mountain in the Amazon outside the Andes, where hundreds of new species of plants and animals were discovered. And he kept expanding his gold-mining activities, using the scientific expeditions as cover."

*Charles Brewer did gold mining in prohibited areas:*

"Venezuela's National Guard in Amazonas caught Brewer gold mining--in July 1984--along the Lower Ventuari River, near the Maquiritare village of Kanaripó, in a rain forest area where all commercial mining was prohibited. *El Diario de Caracas* reported that "the ex-minister . . . was arrested together with other people by the National Guard troops at Kanaripó, because he didn't have the necessary permits to travel in that area, where-in addition to gold-he was also commercializing and exporting Venezuelan fauna and other species without authorization.<sup>29</sup>"

## Chapter 10: To Murder and to Multiply

*Chagnon's study of violence and reproductive success harmed the Yanomami:*

\* "The *Science* study provoked two debates-one over the political impact of Chagnon's study and the other over its scientific accuracy. The first was both more public and more personal. Jacques Lizot wrote, "Chagnon's theories have-with the author's collaboration-become the object of sensational publicity in the U.S. press. A grotesque and malevolent image of the Yanomami has been put forth in indisputably racist terms, the Indians being presented as bloodthirsty people obsessed by the desire for murder."<sup>10</sup>"

*Chagnon falsified data to support his theories:*

"Chagnon also rewrote the history of the two allied -*Mishimishimabowei-teri* and *Iwahikoroba-teri*-by making them originate from a single village just prior to Ruwahiwa's death?<sup>79</sup> Chagnon even redrew the map of their genesis.<sup>80</sup> Why all this extra work? Apparently, he had to make the massacre of 1951 match the sociobiological prediction that close kin must protect and avenge each other's deaths. The *Mishimishimabowei-teri*'s continued failure to avenge their dead was not acceptable, at least not to Chagnon. This was also the ideological key to Chagnon's reinterpretation of the *Ax Fight* described in chapter 7.

He spent twenty-five years preparing the *unokai* study, finding misfits to give him the names of the dead, then hustling them off to mission posts where he could interview them without pressure from the village.<sup>81</sup> And always paying for the taboo information with steel."

*Chagnon used coercive methods to get data by checking names with enemy villages:*

"What happened at *Kedebaboweiteri*, Village 51, was this: Chagnon's principal informants conspired to rig the *unokai* data. They resented his coercive methods, including his ability to get the real names of the dead by checking their testimony with enemy villages. But they discovered a weakness in Chagnon's *unokai* research. They knew Chagnon would not stray far from the main rivers, and so they concocted "murders" in villages far into the Siapa Highlands.<sup>82</sup>"

## Chapter 11: A Kingdom of Their Own

*Chagnon denied medical help to sick Yanomami:*

"Quoting Jesus Cardoza: "There was medical help that could be gotten just a few hours away. And Chagnon just told me that I would never be a scientist. A scientist doesn't think about such things. A scientist just thinks of studying the people. That's what he told me. He didn't want to deal with it at all. It was death. Death was going around. But he said, 'No. No. That's not our problem. We didn't come to save the Indians. We came to study them.'"

*Chagnon provoked fighting through his genealogical research:*

"The thing is that Chagnon asks people for the names of the dead, and that creates conflict among them. One will accuse another, 'You've told him my father's name.' And that's how it starts."

*Chagnon threatened to burn down a village, and beat two children with a belt:*

“Dimanawa’s blunt, handwritten letter was published in *La Iglesia en Amazonas* in March 1990. “We the people of Mavakita, Washawa, and Kedebabowei-teri and Mishimishi-teri do not want you to return to the Upper Orinoco.”<sup>20</sup> There were many reasons-almost as many as there were families on the Upper Mavaca. One group said it did not want Chagnon to come back, because he had threatened to burn down their village with his “fire weapon.”<sup>21</sup> Some of the *Mishimishimabowei-teri* recalled that Chagnon had beaten two children with a belt-one had stolen some of his food and the other tripped him.” But these were all events from the early 1970s. Why had they become so important in 1989?”

*Chagnon brought researchers into the contact with isolated Yanomami villagers without adequate precautions:*

“By all accounts-including Brewer’s own-these trips violated the most basic medical rules of first contact. Guidelines laid out in recent years include these three: (1) screen all expedition members during a quarantine period prior to contact (2) have medical personnel present at all times to give initial health checkups and inoculations; and (3) maintain a permanent medical presence during the first year after contact to administer antibiotics as needed.”

*Chagnon conducted un-permitted research trips into Siapa region:*

“Yet, according to Josefa Camargo, Venezuelás assistant attorney-general for indigenous affairs, “All of these trips by Brewer and Chagnon into the Siapa region were illegal because there is no evidence they even submitted their plans to the DAI [Indian Agency] for approval.”<sup>44</sup>”

## Chapter 12: The Massacre at Haximu

*Accuses Chagnon of inventing stories about missionaries giving gun to the Yanomami:*

“It is false, and it can be proven that it is false. Said Milton Camargo, the head of the MEVA mission, “It is obviously absurd.”<sup>110</sup>”

## Chapter 13: Warriors of the Amazon

*Film-makers assisted by Lizot film the death of a mother and child without providing assistance:*

“The missionaries stopped laughing when the camera followed the progressive weakening and death of a mother and her newborn infant, which occurred over the weeks the film crew was in the village. “In most cases, death from fever is a very preventable death,” said Mike Dawson, who has lived since birth with the Indians, over forty-five years. “With just a little bit of help, they coul

### I. Overall Allegations by Tierney

Linda Green

Overall, in Part III. Tierney is accusing Chagnon, in particular, with wanton insensitivity and woeful disregard for the humanity, dignity and well being of the Yanomami people through his unethical methodology and field practices and use of “false” science to produce the myth of the Yanomami as one of the most violent cultures in the world. Tierney tries to demonstrate the relationship between Chagnon's portrayal through writings and films and practices among the Yanomami and the consequences for them in everyday life.

### II. Chapter 14 and Chapter 15

Tierney begins this section by focusing on the outbreak of war, killing 21 people, in the summer of 1990 and he correlates it with Chagnon's entry into Yanomami territory viz. the FUNDAFACI expeditions into the upper Mavaca and Siapa regions. Tierney calls into question Chagnon's collaboration with the Venezuelan entrepreneur Charles Brewer and Cecelia Matos--the mistress of the then Venezuelan president who was indicted or charged for corruption and fraud and has since fled Venezuela --in the establishment of a private biosphere in the Yanomami territory that would

have given them political authority over the Yanomami and monopoly rights over mineral and scientific claims.

Tierney makes several central claims in relation to these expeditions: 1. That in an attempt to muster international support for this project, FUNDAFACI - ie. Chagnon et al shuttled journalists and scientists in and out of remote Yanomami communities on helicopter tours, without providing protection against possible contagion. 2. These journalists then reproduced the notion of the highland Yanomami as just being discovered - "first contact" with remote villages. And they reproduce the idea that the present day Yanomami are an untainted relic of our past 3. allowed "foreign scientists [to carry]out huge amounts of plant and animal samples.". 4. The role of FUNDAFACI in provoking enmities among already tenuous villages and peoples. A number of the wars that took place during these expeditions appeared " to follow the basic logic of Yanomami villages opposed to Chagnon attacking villages that received him and pitting villages that were involved in the trade cooperative against Chagnon and Brewer's FUNDAFACI camp.

### III. Chapter 16 and 17

Tierney takes issue with Chagnon's claim that the Yanomami are well-nourished and therefore the wars among them were not about resource scarcity but about control of access to women. Look at data that Chagnon has to make these claims as well as other studies that either support or refute these claims. For example, Ken Good's work on protein consumption, as well as any studies by international health organizations.

### IV. Chapter 18

Tierney attempts to link the actions and motives of Chagnon and Neel's work with the arguably unethical practices of the AEC in both the US and in Amazonia. This argument seems to be the least supportable largely made up of inference. Tierney makes a conspiratorial argument.

### V. Appendix

Tierney takes issue with Chagnon's claim that the Yanomami living closest to the mission have a higher mortality rate than those living in more isolated regions. Again empirical evidence needs to be gathered from both Chagnon and those who both support and refute his claims. This in particular is tied to his allegations against the Salesian missionaries.

### VI. Rebuttals et al

John Tooby, an ardent defender of Chagnon, argues in *Jungle Fever*, [published in Slate on line] that Tierney "caricatures Chagnon's view of human nature, as if Chagnon considered people innately violent." Moreover, Tooby claims that Tierney exaggerates Chagnon's view of Yanomami violence. Tooby also claims that Tierney "presents the Yanomamo as if they were isolated in a petri dish, except when Chagnon visited and sneezed. In reality the Yanomamo are tens of thousand of people surrounded by other people with real disease who have regular transactions with them..... Yet, Tierney strangely insists that disease, like war somehow specifically dogs Chagnon's movements. Tooby goes on to write " Moreover, indigenous cultures will not benefit from the public's impression that they are endangered only by the occasional anthropologist, when in fact they are victims of far more powerful forces, ranging from well-meaning missionaries to untranneled modernization."

Tooby's defense, like most others, however, focuses primarily on Chagnon's association with Neel and the alleged measles vaccination campaign/epidemic. I have been unable to find other direct rebuttals to Tierney's claims regarding alleged unethical practices cited above with regard to the FUNDAFACI expeditions. Yet, to me as a social cultural anthropologist, these allegations are the heart of the matter that needs to be addressed.

With regard to the issues cited above I have found the following people and associations expressing concern with regard to Chagnon's views and practices among the Yanomami.

1. The FUNDAFACI expeditions seem in need of interrogation with regard to the helicopter incursions/ visits by journalists and the alleged fact the scientists carried off plant and animal samples. Refer to the AAA Code of Ethics III. A 1. On research - to do no harm - and must do everything in their power to ensure that their research does not harm to safety, dignity or privacy of the people with whom they work; and to III. A. 6. "Must not exploit individuals, groups, animals or cultural or biological materials."

*never made these claims*

On the idea of 'first contact' and that the present day Yanomami are untainted relics of our past [primitive]-and that they are 'fierce people', inherently violent seems to fundamentally ignore both history and power relations among the Yanomami and outsiders for at least two centuries. (See Ferguson, Yanomami Warfare, 1995; J. Lizot, The Yanomami in the Face of Ethnocide, 1976 International Work Group for Indigenous Affairs. Copenhagen ) Yanomami warfare and feuding them are explained in naturalistic rather than historical terms, overlooking the state of crisis in which the Yanomami live: outside encroachment upon Yanomami territory in the last 25 years; catastrophic effects of introduced diseases such as malaria, measles, hepatitis, TB and onchocerciasis on the demographic structure of the tribe; opening of photographic reconnaissance surveys, mineral exploration and airplane and helicopter transport; psychological, cultural and political effects of foreign missionaries in the area; changes in Yanomami social structure brought about by the introduction of shotguns, machetes and metal tools.[ Sheldon Davis, 1976 The Yanomami - Ethnographic Images and Anthropological Responsibilities]

It is Chagnon's relationship to this sustained ethnocide that he has witnessed and according to Tierney has played an active - though by no means only - role that is the most egregious allegation against him. A central question for me is why has the man that John Tooby called "perhaps the most famous living social anthropologist" seemingly remained silent, while the people with whom he has worked so long are being exterminated by a variety of means. For example, in Chagnon's 1976 National Geographic article, The Yanomami: The True People, Chagnon writes "we will soon witness the end of a rich tribal culture that represents a type of adaptation that has endured for 10,000 years. It will never be duplicated again in the history of humanity". Yet, while he laments their decline, there is no analysis of the agents responsible for such ethnic destruction. Granted that Chagnon's book was first written in the 1960s when anthropological ethics and field practices were of a different stripe, but it seems, that Chagnon has not over the course of 25 or more years and five editions to his popular book taken up this topic.

*he has in his tent books*

*last days  
1947*

See Code of Ethics III. B. 1 in terms of factual content of statements and .... Consider the social and political implications of the information - .... Must be alert to the possible harm their information may cause people with whom they work.

See also Statement of the Brazilian Anthropological Association AAA, SF 2000 " Prof. Chagnon has never publicly objected to the use of his statements by forces attempting to justify the invasion and dismemberment of Yanomami territory in Brazil"

David Mayberry-Lewis of Cultural Survival writes: "... the ways in which anthropologists portray the societies they study have consequences, sometimes serious consequences in the real world. Indigenous societies have all too often been maligned in the past, denigrated as savages and marginalized at the edges of the modern world and the modern societies in it. It is not therefore a trivial matter to insist on the fierceness of a people or to maintain that they represent an especially primitive state in human evolution. Chagnon has not done this inadvertently to the Yanomami. He has done so deliberately, systematically and over a long period of time, in spite of the remonstrance of his fellow anthropologists.

Chagnon's rebuttal to attacks on this theories over the years seems to have been mostly suggesting that he has scientific evidence to prove his assertions and that his critics only attack him on ideological grounds. Tierney claims that Chagnon never reveals his data. This should be on an avenue that an investigative committee could pursue: to look and review Chagnon's data especially with regard to nutrition, with regard to mortality rates for diseases both near the missions and in more remote areas, and with regard to male violence and reproductive rates.

VII. Suggestions

A look at Chagnon's own data  
Interviews and ~~review of data~~ by other anthropologists who work in the Yanomami region such as Ken Good, Brian Ferguson, Alcida Ramos, Bruce Albert, Jaques Lizot et al, as well as data from Venezuelan anthropologists and other social scientists.

Interviews with Salesian missionaries and a look at their data, since some are also anthropologists.

A look at the biosphere proposals and logs of what took place

Data on nutrition, morbidity and mortality among the Yanomami in the last three decades.

Interviews with some of the key Yanomami informants.

Notes on Part III of Tierney's book  
Ellen Gruenbaum  
January 14, 2001

1. Several allegations/ criticisms in Part III are probably better left to the normal processes of academic discourse. For example:
  - a. Allegation (ch. 15): Helena Valero was unacknowledged.  
The information given by Helena Valero about the history of the region and individuals should not have been ignored. Her information clarifies and sometimes contradicts the reports of others.
  - b. Allegation (ch. 16): Chagnon misrepresents Yanomami nutritional status.

Stupid  
Study my  
Mr. Y

does no  
work in  
Venezuela

wrong

The debate over whether the Yanomami were robust or malnourished is a matter for further research and interpretation of existing data. It is a matter that is unlikely to be resolved by an investigative committee.

2. One allegation that is troubling concerns the use of Yanomami and Maquiritare Indians as research subjects in a study of the metabolism of radioactive iodine. This was, according to Tierney, a genetic study with no known benefit to the Yanomami, who (according to Tierney) do not suffer from goiters. This study began in 1958 and was conducted by Marcel Roche of Venezuela (see pp. 306-307).

A similar experiment with radioactive iodine was done in Alaska about the same time (1955-1957). One hundred and two Alaskans were involved, receiving radioactive iodine in a test of whether the thyroid gland regulates a person's ability to withstand cold (no). The Air Force conducted the research. Non-native subjects were informed of the radioactive element, but the Inupiat and other native people were not. In recognition of the failure to get informed consent and because of the health risks they were exposed to, Congress approved a settlement that paid each of the experiment participants involved in the complaint \$67,000. (Source: Sam Bishop article, News-Miner Washington Bureau. Look for it through the web site at <http://arcticcircle.uconn.edu/ArcticCircle/SEEJ/thyroid.html> or <http://63.147.65.1/S-ASP-Bin/ReformatSQLIndex.asp?PUID=3D1289&spuid=3D1289&=indx=3D5029>)

Although there does not appear to be a connection between the two projects the settlement supports the idea that informed consent should have been sought, under the Nuremberg Code.

Nevertheless, since it was Dr. Roche, and not a direct collaborator of an anthropologist, we may decide it is not something for us to investigate. But since Roche is involved with other Neel/Chagnon research we might wish to know how this was conducted. Was it part of AEC's studies? Was informed consent obtained? Were others involved? Did using Yanomami as research subjects in the 1950s contribute to a climate of acceptability of such actions that was part of the ease with which Chagnon and Neel's team later collected so many blood samples?

## APPENDIX B: NAMES OF ORGANIZATIONS AND INDIVIDUALS TO BE CONTACTED

Bruce Albert,  
IRD (Institut de Recherche),  
Member, CCPY Board,  
Organizer of UFRJ report

Nelly Arvelo-Jimenez,  
Researcher Emeritus, IVIC (Instituto Venezolano de Investigaciones Cientificas)

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Noeli Pocaterra  
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Alcida Ramos,  
President, CCPY,  
Professor, Universidade Nacional de Brasilia

Dr. Egidio Romano, Director, IVIC  
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#### APPENDIX C: WEB SITES

UCSB web site: [www.anth.ucsb.edu/chagnon.html](http://www.anth.ucsb.edu/chagnon.html)

The National Academy of Sciences statement: <http://national-academies.org/nas/eldorado>

The University of Michigan statement: <http://www.umich.edu/~urel/darkness.html>

U Michigan investigator: <http://www.egroups.com/message/evolutionary-psychology/7394>

Slate article by John Tooby: <http://slate.msn.com/HeyWait/00-10-24/HeyWait.asp>

More from John Tooby:

<http://www.psych.ucsb.edu/research/cep/eldorado/witchcraft.html>

SLAA commentary on Neel: <http://www.egroups.com/message/evolutionary-psychology/8370>

Texas A & M: <http://www.tamu.edu/anthropology/Neel.html>

#### APPENDIX D: Statement by Medical Team of the Federal University of Rio de Janeiro regarding the accusations of the book Darkness in Eldorado by P. Tierney

Note from Bruce Albert:

Janet, As a member of the AAA Task Force, I would like to ask you officially to transmit to the Board of the Association the document here attached. It is a statement by doctors of the Federal University of Rio de Janeiro written at my request and with my consultation, to analyse the

CONFIDENTIAL

From: James Peacock (Chair) for Task Force: Janet Chernela, Linda Green, Ellen Gruenbaum, Phillip Walker, Joe Watkins, Linda Whiteford  
To: Louise Lamphere, President of AAA, and Executive Board of AAA  
Subject: Recommendation for Investigation of *Darkness in El Dorado*  
Date: January 21, 2001

EXECUTIVE SUMMARY

This Task Force was charged to consider allegations in Patrick Tierney's *Darkness in El Dorado* (and related material) in order to recommend to the AAA President and Executive Board whether and, if so, how an investigation of these allegations be carried out by the AAA.

The Committee recommends that the AAA carry out an investigation.

This investigation would entail three levels:

- a) Certain allegations seem to be without foundation, and reports challenging these should be noted. One such allegation is that a measles epidemic among the Yanomami was caused by vaccination.
- b) Other allegations need to be investigated, and the results of investigations by other bodies should be ascertained. One major allegation that begs investigation is that there was a pervasive and enduring pattern over a period of more than thirty years of inadequate concern for the ways in which intrusions from outsiders (including scientists, anthropologists, and journalists) may have harmed the Yanomami.
- c) General issues suggested by this case should be developed for consideration by the Committee on Ethics and the Committee on Human Rights as well as by anthropologists and others in the wider society.

Who should carry out the investigation? Various names are suggested.

By when? A preliminary report should be due by the November meeting of the AAA Executive Board.

With what budget? Procedure is given by which this can be estimated by AAA office.

What actions will result? The investigation we recommend may result in the discovery of clear evidence of unethical behavior on the part of anthropologists. Since the AAA ethics process does not include sanctions, recommended actions are a report to the AAA membership and to the public and recommendations to the ethics committee.

We also recommend that those charged with the investigation consider the historical and professional context of the activities being investigated, specifically, the evolving practices and ethical guidelines in anthropology and prevailing practices at the time of any given action examined.

## DETAILED REPORT

### CHARGE

Our charge, as stated by the AAA Executive Board, was as follows:

The American Anthropological Executive Board has resolved to take the following actions on allegations made in *Darkness in El Dorado*:

Establish a Special Ad Hoc Task Force of seven members, six of which will be appointed by the AAA President from among members of the Committee for Human Rights, chaired by AAA Past President, James Peacock, and charged to:

- A. Examine assertions and allegations contained in *Darkness in El Dorado* as well as others related to the controversy over this document;
- B. Review the AAA's statements on ethics and human rights;
- C. Consult such other sources (documents and individuals), and coordinate with organizations potentially pursuing investigations, including those in Brazil and Venezuela;
- D. Come to conclusion as to which specific issues, if any (1) are deserving of an in depth investigation by the AAA; and (2) can realistically be investigated by the AAA;
- E. Suggest what kinds of evidence might be obtained or individuals interviewed on each issue;

- F. Propose any budget (including expenditure categories and dollar amounts) that might need to be committed to conduct such investigation;
- G. Recommend by whom such an investigation should be conducted; and
- H. Report its findings, conclusions, and recommendations to the Executive Board no later than its February 2001 meeting.

## PROCEDURE

The six-person task force, three members from the Human Rights committee and three from the Ethics committee, was appointed by President Lamphere in December 2000. The Task Force thus comprised seven members, including Chair. The Chair assigned two persons to report on each of the three sections in Tierney, to note allegations and rebuttals, if any, by others, and suggest recommendations to the AAA. Each member was also assigned a web site to examine, and some researched and submitted further information including information about ongoing investigations by colleagues in Venezuela and Brazil. Reports are appended. PLEASE SEE INDIVIDUAL REPORTS AND RECOMMENDATIONS IN ADDITION TO SUMMARY REPORT.

On January 13 and 14, 2001 the committee met at AAA headquarters to discuss all reports and information and formulate recommendations. (As Chernela and Whiteford could not attend this meeting, the chair met with them prior to the meeting; Chernela also joined the discussion by telephone during the January 13 meeting.)

Reports were revised in light of this discussion and drafts were shared among Task Force members for comment during the period January 14-21. The present report was submitted to the AAA Executive Board, President, and Executive Director on January 21 for perusal prior to the February 2-3 meeting of the Executive Board.

(Note: In order to meet the deadline of January 22 for circulation of reports to the Executive Board, this report is submitted without explicit approval by all members of the Task Force of this final draft. All have indicated approval of the basic formulation of recommendations reflecting discussion, but not all are available at this date for explicit approval of current language [for example, one is out of the country and another is involved in a family situation; both have indicated willingness to "trust"

this formulation to reflect their previous input]. Any additional individual comments will be conveyed to the Executive Board and President prior to or at the February 2-3 meeting.)

## RECOMMENDATIONS:

- I. AN INVESTIGATION SHOULD BE CONDUCTED. After considering arguments against and in favor of conducting an investigation, the task force agrees that the AAA should conduct an investigation. Arguments against concern both ends and means: that the end is not significant, e.g. that the issues are not important, or that the means are insufficient, e.g. that the AAA cannot feasibly conduct an appropriate investigation. Arguments in favor also concern ends and means and conclude that the end is significant, that the issues are important, and that the means are sufficient, that the AAA can feasibly conduct an investigation as defined below. The Task Force takes this latter position and therefore recommends an investigation of the following type.
- II. THE INVESTIGATION SHOULD INCLUDE THREE LEVELS: a) allegations that appear to be unfounded, hence are not recommended for further investigation; b) allegations which should be investigated; and c) implications for future practice.
- III. PERSPECTIVE

Patrick Tierney's provocative book, *Darkness in El Dorado*, has contributed a valuable service to our discipline by sparking a broad reexamination of some of the most widely-used research in our field, that on the Yanomami. The book has focused us particularly on ethical responsibilities of anthropologists and other scientists with whom we collaborate. Tierney has drawn attention to disruptions of human rights that anthropologists, film-makers, and others may have caused or exacerbated.

Because Tierney's book has elicited so much public controversy, it is the responsibility of the AAA to address the allegations that are most troublesome; to identify whatever problems occurred; to offer criticisms or responses; to critique ~~allegations~~ allegations that are not supported by the weight of evidence; and to demonstrate to the public that we do take seriously our responsibilities to the people we study.

Most importantly, we see this as an opportunity to address key questions about how anthropologists should conduct their work with people who may be isolated, disadvantaged, or both.

- IV. GUIDING CODES

Guiding codes included the Code of Ethics of the American Anthropological Association (approved in 1998) and the Declaration on Anthropology and Human Rights (adopted by AAA membership in 1999) as well as previous ethics codes and other human rights declarations (see below). Key stipulations in the current Code of Ethics are these:

A.1 Anthropological researchers have primary ethical obligations to the people, species, and materials they study and to the people with whom they work. These obligations can supersede the goal of seeking new knowledge, and lead to decisions not to undertake or to discontinue a research project when the primary obligation conflicts with other responsibilities, such as those owed to sponsors or clients. These ethical obligations include: To avoid harm or wrong, understanding that the development of knowledge can lead to change which may be positive or negative for the people or animals worked with or studied...

A.2 Anthropological researchers must do everything in their power to ensure that their research does not harm the safety, dignity, or privacy of the people with whom they work, conduct research, or perform other professional activities...

A.4 Anthropological researchers should obtain in advance the informed consent of persons being studied...it is understood that the informed consent process is dynamic and continuous; the process should be initiated in the project design and continue through implementation by way of dialogue and negotiation with those studied...

A.5 Anthropological researchers who have developed close and enduring relationships (i.e. covenantal relationships) with either individual persons providing information or with hosts must adhere to the obligations of openness and informed consent, while carefully and respectfully negotiating the limits of the relationship.

A.6 While anthropologists may gain personally from their work, they must not exploit individuals, groups, animals, or cultural or biological materials. They should recognize their debt to the societies in which they work and their obligation to reciprocate with people studied in appropriate ways.

Relevant passages from the Declaration on Anthropology and Human Rights include “As a professional organization of anthropologists, the AAA has long been, and should continue to be, concerned whenever human difference is made the basis for a denial of basic human rights, where “human” is understood in its full range of cultural, social, linguistic, psychological, and biological senses.”

Both the Code and the Statement add references to codes and statements by other anthropological organizations and by other bodies. Reference is made below to previous codes by the AAA and other bodies and to the evolution of codes prior to these adopted in 1998 and 1999. This evolution includes:  
1949 “Report of the Committee on Ethics, Society for Applied Anthropology” Margaret Mead, Chair;  
1967 “Statement on Problems of Anthropological Research and Ethics, Adopted by the Council of the American Anthropological Association, March 1967;  
1971 “Statements on Ethics: Principles of Professional Responsibility, Adopted by the Council of the American Anthropological Association, May 1971 (as amended through November 1976).

While various facets of the codes are pertinent, the key point concerns proper “relations with those studied,” a point that was apparently first emphasized in the 1971 statement. This specific relationship is that between the anthropologist and those studied, so far as the American Anthropological Association is concerned, for its domain is primarily anthropology and anthropologists. Broader contexts include other actors with whom anthropologists collaborate in fieldwork, such as other scientists or journalists. Still broader contexts include other actors and forces that impact “those studied,” such as businesses, tourists, missionaries, other indigenous groups and governments. The Statement on Human Rights becomes relevant in this broader context insofar as it calls on anthropologists to be alert to impact of these wider forces, whether or not anthropologists themselves are involved directly.

Emphasis, then, is on the Ethics code pertaining to anthropology’s and anthropologists’ relations to those studied. One general question the investigative committee should explore is what codes existed and were of influence during the history of the research practices investigated.

## V. RECOMMENDATIONS FOR EVALUATING ALLEGATIONS AND IMPLICATIONS

### A) ALLEGATIONS THAT APPEAR TO BE UNFOUNDED

It is recommended that the investigative committee compile and survey previous and concurrent allegations as well as evidence adduced pertaining to them (see web site in Appendix C) and other investigations (see contact names in Appendix B). It is not recommended that the committee further investigate allegations that appear to be unfounded unless new information or questions emerge. Such allegations include the charge that measles were caused by vaccinations.<sup>1</sup>

### B) ALLEGATIONS THAT APPEAR TO MERIT CONSIDERATION

These allegations should be investigated in the following ways. First, survey existing literature (including the web sites noted in Appendix C) and other investigations (see names of contacts in Appendix B). In addition, investigate each specific allegation as recommended below.

## 1. FIELDWORK PRACTICES

The committee identified as an area of inquiry with regard to fieldwork practices allegations of a pervasive and enduring pattern of inadequate concern and sensitivity to the well-being of the Yanomami people by anthropologists in particular and by journalists, scientists, and other non-Yanomami.

- a) ALLEGATION: Jacques Lizot had sexual relations with Yanomami minors.<sup>2</sup>  
RECOMMENDATION: Request that Venezuelans inquire from Yanomami about this alleged behavior. Compare this to Lizot's own admission, allegedly reported in the international press, that he had sexual relations with Yanomami teenagers.
- b) ALLEGATION: Violence among the Yanomami was exacerbated by fieldwork practices including staging films<sup>3</sup>, distributing steel gifts<sup>4</sup>, collecting genealogical information by playing one faction against another<sup>5</sup>, and paying Yanomami for revealing names.<sup>6</sup>  
RECOMMENDATION: Check Chagnon's own reports. See comments by ethnographic filmmakers. Inquire from Venezuelan colleagues.

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<sup>1</sup> Tierney, pp. 53-82

<sup>2</sup> Tierney, pp. 125-148

<sup>3</sup> Tierney, pp. 83-106

<sup>4</sup> Tierney, p.51

<sup>5</sup> Tierney, pp. 33-35

<sup>6</sup> Tierney, p. 46

Consider contexts: To what extent were practices necessitated by circumstances? Were similar practices used by other fieldworkers working under similar conditions at the time? Is giving of steel gifts common practice in the Amazon among anthropologists, missionaries, and others? Under what circumstances were they given? Were gifts used to express relations of power? If so, how?

- c) ALLEGATION: Large expeditions of scientists, filmmakers, journalists have come to the Yanomami during the past half-century, and these groups are alleged to have spread disease and disrupted Yanomami life.<sup>7</sup>

RECOMMENDATION: Check the record to verify presence of the alleged expeditions. Inquire from the anthropologists involved in these expeditions if they considered procedures to diminish the negative impacts of their activities. Also inquire concerning the extent to which they abided by quarantine requirements that existed at the time and inquire concerning the possibility that different and possibly conflicting quarantine requirements were imposed by different Venezuelan government agencies. Did researchers and expeditions abide by quarantine requirements imposed by the government agency that sponsored their work? Did they bypass requirements for permits? Did government agencies with competing jurisdictions vary in requirements for permits? What kinds of permissions and agreements did visitors negotiate with the Yanomami? While tracing effects is difficult, what are the verifiable impacts, negative or positive? What positive contributions should be noted? How does this record compare with Tierney's allegations?

- d) ALLEGATION: Napoleon Chagnon allegedly denied medical help to a Yanomami, threatened to burn down a village, and beat two children with a belt. A film crew allegedly watched a woman and child die during a NOVA documentary filmed with the assistance of Lizot.<sup>8</sup>

RECOMMENDATION: Inquire from Venezuelan or other investigations. Were there witnesses? Extenuating circumstances?

## 2. REPRESENTATION: REPORTING OF FINDINGS AND PORTRAYALS OF THE YANOMAMI

ALLEGATION: Portrayals of Yanomami as "fierce" and violent distorts their character<sup>9</sup> and has resulted in mistreatment, as in the Brazilian government policy of dividing them to prevent unified aggression.<sup>10</sup>

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<sup>7</sup> Tierney, p. 29, pp. 186-87

<sup>8</sup> Tierney, p.221

<sup>9</sup> Tierney, pp. 158-59

<sup>10</sup> Tierney, p.160

RECOMMENDATION: Note and refer to debate about Yanomami character including the thesis that murderers multiply, but do not enter into this debate. Inquire from Brazilian and Venezuelan investigations about the alleged division policy. Trace portrayals of Yanomami from 1968 (first edition of *The Fierce People*) to present.

### 3. ACTION ANTHROPOLOGY: EFFORTS TO CREATE ORGANIZATIONS AFFECTING YANOMAMI, TO REPRESENT INTERESTS OF YANOMAMI, AND EFFORTS TO CONTRIBUTE TO THEIR WELFARE

a) ALLEGATION: FUNDAFACI was created as a private biosphere and used as a front to further the gold mining interests of Brewer and by implication, interests of Chagnon.<sup>11</sup>

RECOMMENDATION: Find out what FUNDAFACI was. What was its mission, organization, funding? What was Chagnon's relationship to it? What did it do?

IN ADDITION: Look into the Yanomami Survival Fund<sup>12</sup> and other organizations. Obtain facts about these: what is their stated mission, organization, funding? What have they contributed to the welfare (or detriment) of Yanomami?

b) ALLEGATION: When Yanomami territory was invaded by miners, and when Chagnon's work was used to justify exploitation of the Yanomami and their territory, Chagnon remained silent or otherwise failed to represent adequately interests of the Yanomami.<sup>13</sup>

RECOMMENDATION: Invite Chagnon to give his own account of this situation and of efforts he has made on behalf of the Yanomami. What did other anthropologists do? What might one expect an anthropologist to do?

### 4. PERSONAL GAIN FROM STUDY OF YANOMAMI BY SCIENTISTS, ANTHROPOLOGISTS, AND JOURNALISTS

a) ALLEGATION: Scientists, anthropologists, and journalists including Napoleon Chagnon have gained from studying the Yanomami, while not doing a sufficient amount to improve their living conditions.

RECOMMENDATION: As above; invite Chagnon, Lizot and other researchers who have worked with the Yanomami to provide their perspective on what they

<sup>11</sup> Tierney, pp. 9-10; pp. 187-88

<sup>12</sup> Tierney, pp. 183-189

<sup>13</sup> Tierney, pp. 195-214.

He wrote n. 47!

have taken in comparison to what they have given during their long-term work with the Yanomami. Note reports of Chagnon's rapport and contributions. Regarding scientists and journalists, refer the allegation and question to their professional organizations, inviting them to provide any account they wish.

## 5. MALNUTRITION, DISEASE, AND DISORGANIZATION AMONG YANOMAMI

ALLEGATION: It is alleged that malnutrition, disease, and disorganization among the Yanomami are notable and have worsened since initial contact with scientists, journalists, and anthropologists. It is also implied that ethnographers such as Chagnon and Lizot have contributed to these conditions by failing to acknowledge or address them.<sup>14</sup>

RECOMMENDATION: Inquire from anthropologists currently working among Yanomami and from indigenous organizations as to assessment of current condition. Compare earlier conditions to present. Attempt to assess evidence of impacts of ethnographic research in comparison to impacts of gold mining activities and other external intrusions.

## 6. EXPERIMENTS WITH RADIOACTIVE IODINE

*by Roche in 1978?*  
ALLEGATION: Iodine was administered to Yanomami, violating standards of informed consent and placing subjects at risk without benefit (to them).<sup>15</sup>

RECOMMENDATIONS: Inquire as to whether informed consent was obtained in a way that is comparable to the practices of other anthropologists and medical researchers working at the same time under similar conditions.

Concerning the Atomic Energy Commission, check with Susan Linde, B. Johnson, T. Turner; see investigations by National Academy of Sciences.

## V. IMPLICATIONS FOR FUTURE PRACTICE: ETHICS AND HUMAN RIGHTS

### RECOMMENDATIONS:

Consider the areas proposed by the Executive Board for deliberation by the Ethics Committee, in addition to the following issues:

- 1) Several issues implied by the AAA Code of Ethics are brought into specific relief, notably in relation to the instruction "Do no harm." Consider the following:

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<sup>14</sup> Tiemey, pp. 262-63, p.189

<sup>15</sup> Tiemey, pp. 306-7

- a) What measures could curtail exposure to disease?
- b) Should the admonition against sexual harassment of students be extended explicitly to minors who are subjects of fieldwork? Or is this covered by the current admonition to “not harm the safety, dignity, or privacy” of those studied? What if those within the culture condone sexual relations with minors: does this justify outsiders, including anthropologists, engaging in such relations? Does respecting what someone does imply imitation? Refer to the “Rights of the Child” in the international declaration of Human Rights.
- c) How do “covenantal relations” square with the model of scientific or journalistic expeditions?
- d) How, if one wishes to do no harm, can fieldwork be justified at all? (What relationship may obtain between anthropological fieldworkers and others who are allegedly “doing harm,” e.g. miners, tourists, or other “outsiders” in an indigenous setting? May anthropological fieldwork usefully complement or counteract such intrusions? How?)

*Well & the text*

- 2) The current (1998) Ethics Code admonishes fieldworkers to “do no harm,” while stating that proactive doing good as in “advocacy” is an option but not an obligation.

RECOMMENDATION: Ponder whether to move beyond this limiting obligation, and, if so, how? Specifically consider:

- a) What guidelines could be offered for compensation during fieldwork?
- b) What guidelines could be offered for compensation after (e.g. foundations, sharing of royalties), whether as an option or an obligation?
- 3) What are the ethical implications of “public anthropology”?
- a) If anthropologists publicize their findings and knowledge, how can they temper exploitation of peoples who are publicized?
- b) Are there positive opportunities to join public issues and concerns of people studied?
- c) What are relations between a and b?
- 4) How might deliberations of the Ethics Committee be enriched by those of Human Rights?

- 5) The plight of the Yanomami remains a central concern; what can be done?

## VI. CONTEXTS

**RECOMMENDATION:** In assessing allegations of past behavior and proposals for future guidelines, consider the history and evolution of practices and codes of ethics.

- 1) Compare ethical codes for anthropologists as these have evolved during the last half-century (cf. 1949, 1971, 1998); note the Declaration of Human rights, also formulated a half-century ago and still evolving.
- 2) What were prevailing anthropological fieldwork practices at different points during the last half-century of the Yanomami research? How do these compare with those alleged/documentated?

## VII. SIGNIFIGANCE AND IMPLICATIONS CONCERNING ANTHROPOLOGY

**IMPLICATIONS FOR ANTHROPOLOGY:** Publishers, journalists, and others make a claim that this Yanomami work implies that anthropology as a discipline is at fault.

**ASSESSMENT:** The committee might consider the following points:

1) A large portion of the book is not about anthropology or anthropologists; 2) a large percentage of anthropologists living or having lived are not described in the book; 3) a majority of anthropologists, some assert, have not behaved as those described in the book are alleged to have done; 4) much anthropology and many anthropologists have not pursued the studies described in the book or subscribed to the theories or, indeed, been influenced by these theories or approaches; and 5) the practice and ethics of anthropology have evolved during the time period noted, so the period of the actions must be considered in assessing them. Therefore, the relevance to anthropologists and anthropology is primarily the lessons that can be learned, the principles adduced.

## VIII. FURTHER CONCERNS

**ALLEGATION:** It is alleged that Terrence Turner and Leslie Sponsel acted inappropriately in sending a memorandum regarding Patrick Tierney's allegations.  
**RECOMMENDATION:** This is beyond the scope of the proposed investigation of allegations by Tierney about anthropologists and others impacting Yanomami. The AAA President may wish to discuss with Turner and Sponsel appropriate ways to communicate concerns confidentially.

### **RECOMMENDED PERSONNEL FOR INVESTIGATION:**

We suggest a committee of five, comprised of a member of the Ethics Committee, a member of the Human Rights committee, a physical anthropologist, a cultural anthropologist, and an anthropologist familiar with research among the Yanomami

and neighboring groups. Specifically suggested are Joe Watkins, Chair, Ethics Committee; Barbara Johnston, Chair, Human Rights Committee; Mark Weiss, physical anthropologist; Janet Chernela, a cultural anthropologist familiar with research on Yanomami; and Laura Nader, a cultural anthropologist. Other colleagues and other investigations can, of course, be consulted.

#### RECOMMENDED SCHEDULE OF INVESTIGATION:

An interim report should be submitted to the Executive Board of the AAA by its November 2001 meeting.

#### ESTIMATED COST

An initial meeting of the committee to formulate its plan (Spring 2001), a mid-term meeting to assess results (Summer 2001), and a meeting to discuss the report prior to submission (Fall 2001) are anticipated. In addition, communication costs will be incurred to conduct and report inquiries and to formulate a report. The AAA staff will estimate a cost of two to three meetings of five people and of communication costs implied by the above recommendations and/or committee plan.

#### RECOMMENDED OUTCOME OF INVESTIGATION:

Given the structure of the AAA and its Code of Ethics and process, formal sanction is not a possible outcome; the AAA is not a licensing organization and its ethics process does not include a judicial procedure. Instead, a possible option is a report to the membership and to the public concerning the results of the investigation. The purpose of such a report is, first, to bring questionable anthropological practices to the public light and also to state strongly--if this is true--that the majority of us do not abide by such practices. Therefore, it is recommended that if an investigation is conducted, findings be communicated to the membership and, in some form, to various others including a) Yanomami indigenous organizations and others concerned with human rights and the rights of indigenous peoples; b) university administrators, granting agencies, and others who determine whether anthropologists gain support for their work; and c) the media, who have reported and publicized the book. Especially in regard to informing the media, it is recommended that any communications be in consultation with the AAA press office and legal counsel.

#### APPENDICES

- A) Reports by Task Force Members
- B) Names of organizations and individuals to be contacted
- C) Names of Web sites

D) FURJ Medical Report

E) Charge to Committee on Ethics by AAA Executive Board

## APPENDIX A: INDIVIDUAL REPORTS BY TASK FORCE MEMBERS

Reports on Tierney, Section 1: Chernela, Whiteford, Watkins (see fax)

Report on Tierney, Section 2: Walker

Report on Tierney, Section 3: Green, Gruenbaum

Report to the Ad Hoc Task Force on *Darkness in El Dorado*

L.M.Whiteford

### Summary Statement

Along with others on the Task Force, I was asked to review Part 1 of Patrick Tierney's book Darkness in El Dorado, and also to review the materials presented on the UC Santa Barbara website. Having done so it is still difficult to ascertain where fault lies between the conflicting stories and biases in the accounts provided by Tierney and Tooby (on the UCSB website). The supplementary information provided in appendices I-XIV on UCSB website offer greater technical detail concerning a range of topics from measles to anthropological film and are very useful and should be carefully read. Based on these sources, the Tierney account appears to follow a pattern of avoidance of details that contradict the author's main accusations, exaggeration, and hyperbole. It is more difficult to assess Chagnon's actions using these same accounts because they did not include his actual writings, but rather descriptions and counter-descriptions of his alleged actions.

The materials under consideration include a number of accusations and counter-accusations that will be reviewed in greater detail below. However, given the to the committee, of greatest concern are the accusations:

1. that Chagnon and Neel are directly implicated in the introduction and spread of the measles outbreak;
2. that half of one of the villages was used as a control group and not vaccinated;
3. that Chagnon's actions with the Yanomami were in disregard of the AAA Code of Ethics guiding research with human subjects;
4. that Chagnon artificially manipulated Yanomami for dramatic effect in the creation of his films.

The following quotes are taken from Tierney's book and deal with Chagnon's alleged actions or are direct quotes from Chagnon's writing that raise concerns not addresses in the rebuttals on the UCSB website. Part I of the book uses the first three chapters to set the stage for Tierney's accusations of Neel, Chagnon, Asch and others. Chapter 4 in particular focuses on Neel; chapter 5 deals with the measles epidemic; chapters 6 and 7 with issues primarily related to the films Chagnon and Asch created. Neel's role is not the focus of this committee and therefore is not a focus on my response. The carefully detailed, and to me, convincing rebuttal of Tierney's primary accusations about the spread of measles written by Dr. Samuel Katz (appendix II included on the UCSB website) is sufficient to negate further comments and should be included in any report by this committee. However, the question of whether or not only half of one community was vaccinated is insufficiently responded to. Many of the points Tierney raises about the filming process and consequences are also appropriately responded to by authorities in those areas and are included as appendices V and VI in the UCSB website and require no further comment from this committee member. In addition, while the role of James Neel is not included in the purview of this committee, I believe that Susan Lindee's comments and email to Slate magazine (included as Appendices III and IV on the UCSB website) should also be included in this committee's report as they directly refute charges about the entire process of the mitigate efforts during the measles epidemic.

I include these quotes because I believe they may suggest a pattern of behavior that may warrant closer inspection.

Review of statements in Part 1 of *Darkness in El Dorado*:

- Chagnon was “able to skirt normal peer review...”(p.XXII)
- That Chagnon and Cecilia Matos “...planned to control Yanomamiland...”(p.9)
- That Chagnon created villages and alliances for the purpose of filming (p.14)
- That the AEC used the “Yanomami as a control group, comparing their rate of genetic mutation with that of the survivors of the atomic bombs in Hiroshima and Nagasaki”(p.16) and by implication that the Chagnon and Neel research was also funded by the AEC for the same purposes.
- “The [measles] epidemic started from the same village where the geneticist James Neel had scientists inoculate the Yanomami with a live virus that had proven safe for health American children but was known to be dangerous for immune-compromised people”(p.17).
- “The epidemic seemed to track the movements of the vaccinators”(p.17).
- “Chagnon arrived with a boatload of machetes and axes, which he distributed within twenty-four hours” (p.30).
- “He [Chagnon] introduced guns, germs and steel across a wide stretch of Yanomamiland - and on a scale never seen before”(p.30) .
- Referring to Chagnon’s methodology for eliciting names, Tierney writes: “He [Chagnon] resorted to ‘tactics such as bribing children when their elders were not around, or capitalizing on animosities between individuals”(p.33).
- Citing Chagnon’s description: “If the informants became angry when I mentioned the new names I acquired from the unfriendly group, I was almost certain that the information was accurate” (p.33).
- “These anthros come, they take pictures, collect blood, carry them off to their countries, sell them, and make money....and we get nothing”(p.48).
- Tierney quotes Chagnon as writing: “I have been chased around the village on a number of occasions by irate people wielding clubs and firebrands, people who were very upset because I was attempting to photograph specific events – particularly cremations”(p.84).
- “But the Patanowateri refused to send a messenger to Mahekoto-teri, which forced Chagnon to assume the role”(p.92).
- According to Tierney, Chagnon was concerned about the potential consequences of fostering an alliance between two groups when he wrote: “This was taking a risk in spades...I was also worried that I might be a contributor to an enormous disaster”(p.112) but he went ahead.

As Joe Watkins points out in his report to the committee, by 1967 the American Anthropological Association included language in the Principles of Professional Responsibility to focus on the protection of the interests of people studied. By 1971, the Council of the American Anthropological Association included the following language: It is a prime responsibility of anthropologists to anticipate these [misunderstandings and conflicts] and to plan to resolve them in such a way as to do damage neither to those whom they study, nor insofar as possible, to their scholarly community. These statements apply to much of the time period during which Chagnon was working with the Yanomami and would be appropriate to his research during that time.

When the incomplete information, misinformation, exaggerations and omissions are removed from the Tierney text (as much of it is through the rebuttals provided by Katz, Lindee, Hill, Ruby and others) there remains the appearance of disregard and disrespect for the Yanomami perpetuated by Chagnon and others. The AAA may want to use the allegations against Chagnon as an opportunity to further the discussion about anthropological obligations to communities studied, the responsibility of researchers engaged in long-term research, and the practice of informed consent in international research. We would be wise to remember Elvi Whitaker’s comments about the ethical disjunctures intrinsic to any discipline that specializes in eliciting information people are reluctant to divulge. Anthropologists are very good at stealing people’s secrets and the Association should recognize the ethical quandaries in which many anthropologists find themselves and provide greater guidance to them.

While the AAA should be applauded for its continued insistence that the phrase “paramount responsibility of the anthropologist “ should be those studied, inserted in the 1971 version of the Principles of Professional Responsibility was retained in the 1990 revision (“First responsibility to those who lives and cultures are studied”), students and researchers need greater guidance. A fellow professional anthropology association, The Society for Applied Anthropology whose first statements on professional ethics were promulgated in 1949, lists as their first responsibility:

1. *To the people we study we owe disclosure of our research goals, methods and sponsorship. The participation of people in our research activities shall only be on a voluntary and informed basis. We shall provide a means throughout our research activities and in subsequent publications to maintain the confidentiality of those we study...*



*Charles Brewer worked to block indigenous land rights:*

"As Brewer became one of Venezuela's biggest garimpo entrepreneurs, he also became the gold rush's most outspoken advocate-and the leader of a political movement that aimed to block recognition for indigenous land rights."

*Charles Brewer used scientific expeditions as a cover for gold mining expansion:*

"Science was Brewer's ally, in his mining ventures. He shuttled scientists from the Smithsonian, the American Museum of Natural History, and the Royal Geographical Society to Cerro Neblina, the highest mountain in the Amazon outside the Andes, where hundreds of new species of plants and animals were discovered. And he kept expanding his gold-mining activities, using the scientific expeditions as cover."

*Charles Brewer did gold mining in prohibited areas:*

"Venezuela's National Guard in Amazonas caught Brewer gold mining--in July 1984--along the Lower Ventuari River, near the Maquiritare village of Kanaripó, in a rain forest area where all commercial mining was prohibited. *El Diario de Caracas* reported that "the ex-minister . . . was arrested together with other people by the National Guard troops at Kanaripó, because he didn't have the necessary permits to travel in that area, where-in addition to gold-he was also commercializing and exporting Venezuelan fauna and other species without authorization.<sup>29</sup>"

## Chapter 10: To Murder and to Multiply

*Chagnon's study of violence and reproductive success harmed the Yanomami:*

\* "The *Science* study provoked two debates-one over the political impact of Chagnon's study and the other over its scientific accuracy. The first was both more public and more personal. Jacques Lizot wrote, "Chagnon's theories have-with the author's collaboration-become the object of sensational publicity in the U.S. press. A grotesque and malevolent image of the Yanomami has been put forth in indisputably racist terms, the Indians being presented as bloodthirsty people obsessed by the desire for murder."<sup>10</sup>"

*Chagnon falsified data to support his theories:*

"Chagnon also rewrote the history of the two allied -*Mishimishimabowei-teri* and *Iwahikoroba-teri*-by making them originate from a single village just prior to Ruwahiwa's death?<sup>79</sup> Chagnon even redrew the map of their genesis.<sup>80</sup> Why all this extra work? Apparently, he had to make the massacre of 1951 match the sociobiological prediction that close kin must protect and avenge each other's deaths. The *Mishimishimabowei-teri*'s continued failure to avenge their dead was not acceptable, at least not to Chagnon. This was also the ideological key to Chagnon's reinterpretation of the *Ax Fight* described in chapter 7.

He spent twenty-five years preparing the *unokai* study, finding misfits to give him the names of the dead, then hustling them off to mission posts where he could interview them without pressure from the village.<sup>81</sup> And always paying for the taboo information with steel."

*Chagnon used coercive methods to get data by checking names with enemy villages:*

"What happened at *Kedebaboweiteri*, Village 51, was this: Chagnon's principal informants conspired to rig the *unokai* data. They resented his coercive methods, including his ability to get the real names of the dead by checking their testimony with enemy villages. But they discovered a weakness in Chagnon's *unokai* research. They knew Chagnon would not stray far from the main rivers, and so they concocted "murders" in villages far into the Siapa Highlands.<sup>82</sup>"

## Chapter 11: A Kingdom of Their Own

*Chagnon denied medical help to sick Yanomami:*

"Quoting Jesus Cardoza: "There was medical help that could be gotten just a few hours away. And Chagnon just told me that I would never be a scientist. A scientist doesn't think about such things. A scientist just thinks of studying the people. That's what he told me. He didn't want to deal with it at all. It was death. Death was going around. But he said, 'No. No. That's not our problem. We didn't come to save the Indians. We came to study them.'"

*Chagnon provoked fighting through his genealogical research:*

"The thing is that Chagnon asks people for the names of the dead, and that creates conflict among them. One will accuse another, 'You've told him my father's name.' And that's how it starts."

*Chagnon threatened to burn down a village, and beat two children with a belt:*

"Dimanawa's blunt, handwritten letter was published in *La Iglesia en Amazonas* in March 1990. "We the people of Mavakita, Washawa, and Kedebabowei-teri and Mishimishi-teri do not want you to return to the Upper Orinoco."20 There were many reasons-almost as many as there were families on the Upper Mavaca. One group said it did not want Chagnon to come back, because he had threatened to burn down their village with his "fire weapon."21 Some of the Mishimishimabowei-teri recalled that Chagnon had beaten two children with a belt-one had stolen some of his food and the other tripped him." But these were all events from the early 1970s. Why had they become so important in 1989?"

*Chagnon brought researchers into the contact with isolated Yanomami villagers without adequate precautions:*

"By all accounts-including Brewer's own-these trips violated the most basic medical rules of first contact. Guidelines laid out in recent years include these three: (1) screen all expedition members during a quarantine period prior to contact (2) have medical personnel present at all times to give initial health checkups and inoculations; and (3) maintain a permanent medical presence during the first year after contact to administer antibiotics as needed."

*Chagnon conducted un-permitted research trips into Siapa region:*

"Yet, according to Josefa Camargo, Venezuelás assistant attorney-general for indigenous affairs, "All of these trips by Brewer and Chagnon into the Siapa region were illegal because there is no evidence they even submitted their plans to the DAI [Indian Agency] for approval."44"

## **Chapter 12: The Massacre at Haximu**

*Accuses Chagnon of inventing stories about missionaries giving gun to the Yanomami:*

"It is false, and it can be proven that it is false. Said Milton Camargo, the head of the MEVA mission, "It is obviously absurd."110"

## **Chapter 13: Warriors of the Amazon**

*Film-makers assisted by Lizot film the death of a mother and child without providing assistance:*

"The missionaries stopped laughing when the camera followed the progressive weakening and death of a mother and her newborn infant, which occurred over the weeks the film crew was in the village. "In most cases, death from fever is a very preventable death," said Mike Dawson, who has lived since birth with the Indians, over forty-five years. "With just a little bit of help, they coul

### **I. Overall Allegations by Tierney**

Linda Green

Overall, in Part III. Tierney is accusing Chagnon, in particular, with wanton insensitivity and woeful disregard for the humanity, dignity and well being of the Yanomami people through his unethical methodology and field practices and use of "false" science to produce the myth of the Yanomami as one of the most violent cultures in the world. Tierney tries to demonstrate the relationship between Chagnon's portrayal through writings and films and practices among the Yanomami and the consequences for them in everyday life.

### **II. Chapter 14 and Chapter 15**

Tierney begins this section by focusing on the outbreak of war, killing 21 people, in the summer of 1990 and he correlates it with Chagnon's entry into Yanomami territory viz. the FUNDAFACI expeditions into the upper Mavaca and Siapa regions. Tierney calls into question Chagnon's collaboration with the Venezuelan entrepreneur Charles Brewer and Cecelia Matos--the mistress of the then Venezuelan president who was indicted or charged for corruption and fraud and has since fled Venezuela --in the establishment of a private biosphere in the Yanomami territory that would

have given them political authority over the Yanomami and monopoly rights over mineral and scientific claims.

Tierney makes several central claims in relation to these expeditions: 1. That in an attempt to muster international support for this project, FUNDAFACI - ie. Chagnon et al shuttled journalists and scientists in and out of remote Yanomami communities on helicopter tours, without providing protection against possible contagion. 2. These journalists then reproduced the notion of the highland Yanomami as just being discovered - "first contact" with remote villages. And they reproduce the idea that the present day Yanomami are an untainted relic of our past 3. allowed "foreign scientists [to carry]out huge amounts of plant and animal samples.". 4. The role of FUNDAFACI in provoking enmities among already tenuous villages and peoples. A number of the wars that took place during these expeditions appeared " to follow the basic logic of Yanomami villages opposed to Chagnon attacking villages that received him and pitting villages that were involved in the trade cooperative against Chagnon and Brewer's FUNDAFACI camp.

### III. Chapter 16 and 17

Tierney takes issue with Chagnon's claim that the Yanomami are well-nourished and therefore the wars among them were not about resource scarcity but about control of access to women. Look at data that Chagnon has to make these claims as well as other studies that either support or refute these claims. For example, Ken Good's work on protein consumption, as well as any studies by international health organizations.

### IV. Chapter 18

Tierney attempts to link the actions and motives of Chagnon and Neel's work with the arguably unethical practices of the AEC in both the US and in Amazonia. This argument seems to be the least supportable largely made up of inference. Tierney makes a conspiratorial argument.

### V. Appendix

Tierney takes issue with Chagnon's claim that the Yanomami living closest to the mission have a higher mortality rate than those living in more isolated regions. Again empirical evidence needs to be gathered from both Chagnon and those who both support and refute his claims. This in particular is tied to his allegations against the Salesian missionaries.

### VI. Rebuttals et al

John Tooby, an ardent defender of Chagnon, argues in *Jungle Fever*, [published in Slate on line] that Tierney "caricatures Chagnon's view of human nature, as if Chagnon considered people innately violent." Moreover, Tooby claims that Tierney exaggerates Chagnon's view of Yanomami violence. Tooby also claims that Tierney "presents the Yanomamo as if they were isolated in a petri dish, except when Chagnon visited and sneezed. In reality the Yanomamo are tens of thousand of people surrounded by other people with real disease who have regular transactions with them..... Yet, Tierney strangely insists that disease, like war somehow specifically dogs Chagnon's movements. Tooby goes on to write " Moreover, indigenous cultures will not benefit from the public's impression that they are endangered only by the occasional anthropologist, when in fact they are victims of far more powerful forces, ranging from well-meaning missionaries to untranneled modernization."

Tooby's defense, like most others, however, focuses primarily on Chagnon's association with Neel and the alleged measles vaccination campaign/epidemic. I have been unable to find other direct rebuttals to Tierney's claims regarding alleged unethical practices cited above with regard to the FUNDAFACI expeditions. Yet, to me as a social cultural anthropologist, these allegations are the heart of the matter that needs to be addressed.

With regard to the issues cited above I have found the following people and associations expressing concern with regard to Chagnon's views and practices among the Yanomami.

1. The FUNDAFACI expeditions seem in need of interrogation with regard to the helicopter incursions/ visits by journalists and the alleged fact the scientists carried off plant and animal samples. Refer to the AAA Code of Ethics III. A 1. On research - to do no harm - and must do everything in their power to ensure that their research does not harm to safety, dignity or privacy of the people with whom they work; and to III. A. 6. "Must not exploit individuals, groups, animals or cultural or biological materials."

*never made these claims*

On the idea of 'first contact' and that the present day Yanomami are untainted relics of our past [primitive]-and that they are 'fierce people', inherently violent seems to fundamentally ignore both history and power relations among the Yanomami and outsiders for at least two centuries. (See Ferguson, Yanomami Warfare, 1995; J. Lizot, The Yanomami in the Face of Ethnocide, 1976 International Work Group for Indigenous Affairs. Copenhagen ) Yanomami warfare and feuding them are explained in naturalistic rather than historical terms, overlooking the state of crisis in which the Yanomami live: outside encroachment upon Yanomami territory in the last 25 years; catastrophic effects of introduced diseases such as malaria, measles, hepatitis, TB and onchocerciasis on the demographic structure of the tribe; opening of photographic reconnaissance surveys, mineral exploration and airplane and helicopter transport; psychological, cultural and political effects of foreign missionaries in the area; changes in Yanomami social structure brought about by the introduction of shotguns, machetes and metal tools.[ Sheldon Davis, 1976 The Yanomami - Ethnographic Images and Anthropological Responsibilities]

It is Chagnon's relationship to this sustained ethnocide that he has witnessed and according to Tierney has played an active - though by no means only - role that is the most egregious allegation against him. A central question for me is why has the man that John Tooby called "perhaps the most famous living social anthropologist" seemingly remained silent, while the people with whom he has worked so long are being exterminated by a variety of means. For example, in Chagnon's 1976 National Geographic article, The Yanomami: The True People, Chagnon writes "we will soon witness the end of a rich tribal culture that represents a type of adaptation that has endured for 10,000 years. It will never be duplicated again in the history of humanity". Yet, while he laments their decline, there is no analysis of the agents responsible for such ethnic destruction. Granted that Chagnon's book was first written in the 1960s when anthropological ethics and field practices were of a different stripe, but it seems, that Chagnon has not over the course of 25 or more years and five editions to his popular book taken up this topic.

*he has in his tent books*

*last days  
1947*

See Code of Ethics III. B. 1 in terms of factual content of statements and .... Consider the social and political implications of the information - .... Must be alert to the possible harm their information may cause people with whom they work.

See also Statement of the Brazilian Anthropological Association AAA, SF 2000 " Prof. Chagnon has never publicly objected to the use of his statements by forces attempting to justify the invasion and dismemberment of Yanomami territory in Brazil"

David Mayberry-Lewis of Cultural Survival writes: "... the ways in which anthropologists portray the societies they study have consequences, sometimes serious consequences in the real world. Indigenous societies have all too often been maligned in the past, denigrated as savages and marginalized at the edges of the modern world and the modern societies in it. It is not therefore a trivial matter to insist on the fierceness of a people or to maintain that they represent an especially primitive state in human evolution. Chagnon has not done this inadvertently to the Yanomami. He has done so deliberately, systematically and over a long period of time, in spite of the remonstrance of his fellow anthropologists.

Chagnon's rebuttal to attacks on this theories over the years seems to have been mostly suggesting that he has scientific evidence to prove his assertions and that his critics only attack him on ideological grounds. Tierney claims that Chagnon never reveals his data. This should be on an avenue that an investigative committee could pursue: to look and review Chagnon's data especially with regard to nutrition, with regard to mortality rates for diseases both near the missions and in more remote areas, and with regard to male violence and reproductive rates.

VII. Suggestions

A look at Chagnon's own data  
Interviews and ~~review of data~~ by other anthropologists who work in the Yanomami region such as Ken Good, Brian Ferguson, Alcida Ramos, Bruce Albert , Jaques Lizot et al, as well as data from Venezuelan anthropologists and other social scientists.

Interviews with Salesian missionaries and a look at their data, since some are also anthropologists.

A look at the biosphere proposals and logs of what took place

Data on nutrition, morbidity and mortality among the Yanomami in the last three decades.

Interviews with some of the key Yanomami informants.

Notes on Part III of Tierney's book  
Ellen Gruenbaum  
January 14, 2001

1. Several allegations/ criticisms in Part III are probably better left to the normal processes of academic discourse. For example:
  - a. Allegation (ch. 15): Helena Valero was unacknowledged.  
The information given by Helena Valero about the history of the region and individuals should not have been ignored. Her information clarifies and sometimes contradicts the reports of others.
  - b. Allegation (ch. 16): Chagnon misrepresents Yanomami nutritional status.

Stupid  
Study my  
Mr. Y

does no  
work in  
Venezuela

wrong

The debate over whether the Yanomami were robust or malnourished is a matter for further research and interpretation of existing data. It is a matter that is unlikely to be resolved by an investigative committee.

2. One allegation that is troubling concerns the use of Yanomami and Maquiritare Indians as research subjects in a study of the metabolism of radioactive iodine. This was, according to Tierney, a genetic study with no known benefit to the Yanomami, who (according to Tierney) do not suffer from goiters. This study began in 1958 and was conducted by Marcel Roche of Venezuela (see pp. 306-307).

A similar experiment with radioactive iodine was done in Alaska about the same time (1955-1957). One hundred and two Alaskans were involved, receiving radioactive iodine in a test of whether the thyroid gland regulates a person's ability to withstand cold (no). The Air Force conducted the research. Non-native subjects were informed of the radioactive element, but the Inupiat and other native people were not. In recognition of the failure to get informed consent and because of the health risks they were exposed to, Congress approved a settlement that paid each of the experiment participants involved in the complaint \$67,000. (Source: Sam Bishop article, News-Miner Washington Bureau. Look for it through the web site at <http://arcticcircle.uconn.edu/ArcticCircle/SEEJ/thyroid.html> or <http://63.147.65.1/S-ASP-Bin/ReformatSQLIndex.asp?PUID=3D1289&spuid=3D1289&=indx=3D5029>)

Although there does not appear to be a connection between the two projects the settlement supports the idea that informed consent should have been sought, under the Nuremberg Code.

Nevertheless, since it was Dr. Roche, and not a direct collaborator of an anthropologist, we may decide it is not something for us to investigate. But since Roche is involved with other Neel/Chagnon research we might wish to know how this was conducted. Was it part of AEC's studies? Was informed consent obtained? Were others involved? Did using Yanomami as research subjects in the 1950s contribute to a climate of acceptability of such actions that was part of the ease with which Chagnon and Neel's team later collected so many blood samples?

## APPENDIX B: NAMES OF ORGANIZATIONS AND INDIVIDUALS TO BE CONTACTED

Bruce Albert,  
IRD (Institut de Recherche),  
Member, CCPY Board,  
Organizer of UFRJ report

Nelly Arvelo-Jimenez,  
Researcher Emeritus, IVIC (Instituto Venezolano de Investigaciones Cientificas)

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Alcida Ramos,  
President, CCPY,  
Professor, Universidade Nacional de Brasilia

Dr. Egidio Romano, Director, IVIC  
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#### APPENDIX C: WEB SITES

UCSB web site: [www.anth.ucsb.edu/chagnon.html](http://www.anth.ucsb.edu/chagnon.html)

The National Academy of Sciences statement: <http://national-academies.org/nas/eldorado>

The University of Michigan statement: <http://www.umich.edu/~urel/darkness.html>

U Michigan investigator: <http://www.egroups.com/message/evolutionary-psychology/7394>

Slate article by John Tooby: <http://slate.msn.com/HeyWait/00-10-24/HeyWait.asp>

More from John Tooby:

<http://www.psych.ucsb.edu/research/cep/eldorado/witchcraft.html>

SLAA commentary on Neel: <http://www.egroups.com/message/evolutionary-psychology/8370>

Texas A & M: <http://www.tamu.edu/anthropology/Neel.html>

#### APPENDIX D: Statement by Medical Team of the Federal University of Rio de Janeiro regarding the accusations of the book Darkness in Eldorado by P. Tierney

Note from Bruce Albert:

Janet, As a member of the AAA Task Force, I would like to ask you officially to transmit to the Board of the Association the document here attached. It is a statement by doctors of the Federal University of Rio de Janeiro written at my request and with my consultation, to analyse the

general fashion was not effected in sufficient time. It is worth emphasizing that the practice of containing the epidemic by means of [a ring of] vaccination is recommended even today. Keeping in mind the speed of dissemination of the disease and the difficulties encountered in this type of fieldwork, the only question is whether, given their prior knowledge of the fact [of the outbreak in Brazil], better planning and training of the team could have reduced the impact of the epidemic.

### **Planned and effected experimentation**

The application of Edmonston B together with an immunoglobulin [hereafter translated as gamma globulin, one immunoglobulin] was the recommended treatment to reduce adverse reactions to the vaccine at the time, although the use of the vaccine alone was not contraindicated. In fact, the use of the vaccine without gamma globulin was compatible with the state of the art of research in the 1960s. However, from a clinical point of view, the use of gamma globulin would have been more advisable given the concerns for an isolated population susceptible to more intense collateral effects, such as the Yanomami. The real reasons for which J. Neel opted to not use gamma globulin among the 31 vaccinations of the village of Iyewi theri (and in at least one of three regions in Brazil) are not clear in the documents evaluated, although the intent of experimentation could be plausible. Even though Neel cites in his article that his intended research protocols and methodologies were compromised (without, however, making clear what they would have been), we point out that the result of his comparisons among individuals vaccinated with or without gamma globulin becomes weakened in any case insofar as one cannot differentiate individuals with vaccine reactions from those already presenting measles, ameliorated or not by the vaccine.

did not  
have it

### **Ethics in research among Indigenous peoples: past and present**

The 1960s were characterized by a strong division between the state of ethics in biomedical research and methodologies employed, especially with ethnic minorities. In this sense, experimentation that may have been conducted by J. Neel might conflict with ethical standards, in theory, but it is no different from much of the research with humans carried out and published in renowned journals of the

time.

- In a positive light, the dispute raised by Tierney's Chapter 5, in spite of its serious conceptual and documentational flaws, and its lack of logical rigor, prompts a deepening of discussion and reflection regarding ethics in research with indigenous populations and minorities in general, not only for biomedical research, but also in spheres, such as anthropological research, which in this particular case happened to be closely associated with biomedical research.

Finally, if the scientific community judges it necessary to pursue specific questions pointed out in the accusations of Tierney's book and discussed in the present evaluation, we suggest the creation of an international, independent, multidisciplinary committee, to study the case, based upon research protocols, documentation from the governmental institutions involved, field notes from the Neel and Chagnon team, and records of medical services [and practices] from the field. (pp. 14, 15.)

#### APPENDIX E: Charge to Committee on Ethics by AAA Executive Board

Charge the AAA Committee on Ethics to consider developing additional draft guidelines to the Code of Ethics and other materials and report to the Executive Board. Consideration should be given to common dilemmas faced by anthropologists conducting research in field situations, including: (1) their responsibility to provide assistance when study subjects experience health emergencies; (2) the level and kind of remuneration to subject populations and individuals that is appropriate and fair; (3) the impact of material assistance provided to study populations; (4) the potentially negative impact of factual data about a study population on such population; and (5) what constitutes valid and appropriate informed consent in anthropological studies.