The Anthropology of Infectious Disease

Anth 606, Spring 2009  Professor Nina L. Etkin
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Scope:
There are troubles ahead: early in this millennium infectious diseases remain the major cause of death worldwide. We live in a time of emerging (new) infectious diseases (e.g., HIV/AIDS, Ebola Fever, Hantavirus, Legionnaires’ Disease) and resurgent old ones such as tuberculosis, malaria, and polio. The problem is compounded by infectious disease “traffic” — introducing infections to new species and previously not affected populations. This growing disease burden can be linked to human activities such as deforestation and other environmental transformations, contact with “exotic” animals, over- and other inappropriate use of antibiotics, limited knowledge of disease transmission, and lack of resources for vaccination and other preventions. The anthropological study of infectious disease explores the interrelations among pathogenic microbes in human populations by focusing on the intersection of cultural, ecological, and political factors related to the transmission and experience of infectious disease. Given the role of human action in infectious disease traffic, anthropologists — who observe and interpret human behavior— have insights and other resources that can improve understanding infectious diseases.

Course Description and Objectives:
This seminar advances an integrated biocultural perspective, emphasizing the importance of human actions, to comprehend infectious diseases in the specific political, ecological, and cultural contexts in which they occur. These contexts are defined by a constellation of variables in nature (e.g., parasites, environment) and in society (e.g., subsistence, gender relations, differential access to resources) that shape how a particular community will experience infectious diseases. A uniquely anthropological perspective interprets the prevalence and experience of illness in view of local knowledge of disease causation, patterns of transmission, indigenous preventions and treatments, and formal-sector programs for vaccination and parasite/vector control. We will consider questions such as these:

- Did Neanderthals get / receive / catch chicken pox?
- How is the risk of infectious disease influenced by subsistence strategies (e.g., hunting and foraging, fishing, agriculture) and by residence patterns (e.g., dispersed vs clustered)?
- What are the cultural and political-economic bases of concepts such as “risk” and “prostitution” as these terms are used by AIDS prevention programs in SE Asia?
- Are traditional plant medicines effective against infectious diseases?
- Why do 20,000 people die each year from influenza, a vaccine-preventable infection?
- European contact led to high mortality among Native Hawaiians. Why did Europeans not experience a reciprocal transfer of infections from indigenous peoples?
- How is susceptibility to infectious disease influenced by rapid social and cultural change — e.g., migration, globalization, technological development?
- What are the “epidemic politics” of infectious diseases in poor communities?
- Drug-resistant infections are being treated with polypharmacy (more than one antibiotic). Has the “magic bullet” become the magic machine gun?
- Are emergent infections really new?
- What power asymmetries are reflected in the commodification of health and in preventive and therapeutic measures?
Organization:
The course is organized in a structured seminar format which includes each week my short introduction on a theme related to the week’s readings. Every week one student will lead discussion of the readings, two other students are assigned presentations. The full class will participate in the general discussion that follows. Everyone is expected to comprehend the material at the theoretical and conceptual level, informed by an anthropological perspective, and to master (i.e., commit to memory) sufficient detail to illustrate discussion points. It is not expected that students will memorize all the characteristics of each infectious agent, chronologies of disease epidemics, and the like. Rather, the intent is to know how/when to draw in such factual summaries – specific data and research findings – to engage discussion on a more abstract level. One goal is the comprehension of the co-evolution of people and parasites from an anthropological perspective that is incremental over the course of the semester: discussion of readings and presentations in one week should reflect earlier discussions.

Each week all students will write a two-page (double-spaced) integrated overview of the readings that compares and contrasts the authors, and pose two questions (about the readings collectively) that will engage group discussion. Hand in these weekly summaries at the end of each class. This is not meant to be an exhaustive treatment of the readings – only an overview plus discussion topics. The student leading the discussion can turn in his or her notes, rather than a summary.

PowerPoint presentations are recommended for seminar presentations and end-of-semester presentations.

Individual seminar presentations must briefly address the bio-epidemiological dimensions of an infectious disease treated in that week’s readings. Such information can be drawn from the assigned, and additional, readings and should outline these parameters as understood by bio (western) science – below is the example of malaria:

- infectious agent: 4 species of the protozoan genus Plasmodium
- symptoms: fever, anemia, enlarged spleen
- prognosis: recovery likely unless the parasite is drug resistant
- mode of transmission: Anopheles mosquito vector
- ecological risk factors: poor soil drainage and irrigation schemes that allow water to accumulate, which encourages mosquito breeding
- social/cultural risk factors: residence or activity adjacent to water, high population density
- ecological protective factors: cold temperatures do not support mosquito breeding
- social/cultural protective factors: medicine, migration, architecture, smoke
- prevention: water control, mosquito netting, pharmaceutical antimalarials
- treatment: chloroquine, mefloquine, indigenous medicines such as Artemisia annua

On the day of your seminar presentation, distribute to all seminar participants a one-page abstract/outline of your presentation, with references listed. If you request, I will provide you with suggestions — including readings — for preparation of specific and general discussions. Appropriate sources include recently published texts, books, and journals.

General discussion will include all seminar participants, and will focus on the interrelations among the biomedical “facts” of the disease in question and features of culture and society. Our primary objective is to contextualize the bioepidemiological parameters by drawing attention to the cultural construction and social negotiation of health and illness:

- disease explanatory models
- social mediation of knowledge and health resources
- patterns of access to resources
- the meaning of health, illness, and medicines
Uh Oh

If I become dissatisfied with the level of participation, I will assign additional written work or examinations. In other words, it is in your collective best interest that all students be prepared to discuss each week's readings. An appropriate strategy would be to prepare summaries of sub-themes that you find especially compelling for each article/chapter, and raise specific questions to clarify some aspect of those readings. Please keep in mind the primary objective of learning in this course: bioepidemiological parameters are the backdrop, cultural constructions and social representations of illness are the frontpiece.

Individual Projects:

On consultation with me, each student will identify a goal/product/activity that meets his or her individual professional objectives and intersects with the objectives and content of this course. This product can take the form of an annotated bibliography, MA or other research paper, a research proposal, or something else.

The student who elects the Research Paper option will write a research paper on a subject of his/her choice. The minimum length is 40 pages double-spaced, using standard font and margins. Papers must include a complete bibliographic citation for each work cited/referred to in the text of the paper. Reference materials should be drawn from academic/professional works published in recent journals and books (last 10 years or so)** — at least 35 references should be consulted and cited. Direct quotes must be kept to an absolute minimum. It is best to avoid quotes altogether. The paper must have a problem orientation (be linked to concepts and theory), and not be merely a description of some phenomenon. An appropriate format would include a literature review of the selected topic, and an introduction and conclusion that discuss the particular and general significance of the topic, including how it relates to the concepts, theory, and substance of subjects addressed in this course.

The student who elects the Annotated Bibliography option will select a topic, write a one-page introduction about its significance to Anthropology, and annotate at least 60 recent (last 10 years or so)** journal articles or books about that topic. The annotation for each item will consist of a summary of the article (one or two paragraphs, about 1/3 page) and a statement (two or three sentences) about how this particular article informs your specific topic — e.g., outlines methods appropriate for the study of phenomenon X, explores phenomenon X in a particular geocultural location, reveals the interplay of culture and biology in the expression of phenomenon X, offers a cross-cultural perspective on phenomenon X, provides a theoretical basis for the study of phenomenon X). The goal is to understand how contemporary Anthropologists study this phenomenon.
** If you elect an historical treatment, some older references are appropriate.

Writing Assignment for the Last Day of Classes, 6 May

All students review the semester's readings, presentations, discussions, and conceptual summaries to write a five-page (double-spaced) summary (or series of summary statements/observations). Everyone presents, followed/punctuated by general discussion.

Readings are available for photocopying in the Department of Anthropology Office.

Evaluation: % of final course grade
Weekly writing assignments 25%
Seminars 25%
Discussion 25%
Papers/Bibliographies 25%
Seminar Outline and Reading Assignments

14 January: Seminar Overview
What is a uniquely anthropological perspective on infectious disease?
Review of syllabus and seminar organization
Biomedical terminology
Who speaks for the microbes?

21 January: Introduction

A. Anthropological contributions to the study of infectious disease and international health research
B. Theoretical perspectives
   1. Biological approaches — micro- and macro-evolutionary studies
   2. Ecological approaches
   3. Sociocultural approaches: human behavior, ethnomedicine, indigenous peoples and the formal medical sector
   4. Political economy/political ecology
   5. Biocultural approaches

Reading:


28 January: Conceptual and Theoretical Perspectives

Reading:

4 February: No regular class meeting, finalize topics for papers/projects
11 February: Paper/project topics due

11 February: Ethnographies of Illness

A. Biomedicine and the “germ theory” of disease
B. Worms, winds, evil eye, birth in nose, and other explanatory models
C. Perceptions of the immune system — metaphors of prevention and healing
   1. Media view: body at war
   2. Alternative practitioners’ view: “fix my head”
   3. Bioscientists’ view: β-cells, lymphocytes, T-cell activation, immunoglobulin, antibodies

Reading:


18 February: Ethnographies of Illness - continued

Reading:


25 February: (Re)emergent Infections and the Diminished Biomedical Arsenal

Reading:


4 March: No regular class meeting, work on papers/projects

11 March: More Theoretical Considerations: Co-evolutionary and Historical Perspectives
A. Infection and the evolution of sex:
   1. The significance of self and non-self
   2. Safety in diversity
B. People, plants, herbivores, and all their respective pathogens

Reading:


25 March: Research Methods in The Anthropological Study of Infectious Disease

A. Household production of illness and health
   1. developmental niche framework
B. The paradox of iatrogenic infection
C. Collecting ethnomedical data in the field

Reading:


25 March: Spring Holiday - no class

1 April: More Ethnographies of Infectious Disease

A. Weak lungs and the social stigma of tuberculosis
B. Count your children only after the measles pass — epidemics of a preventable infection
   1. Spiritual dimensions of a viral infection
C. Pneumonia — bacterium, virus, or cold air?

Reading:


8 April: Political Economies of Tuberculosis

Reading


15 April: Zoonoses
   A. Where have you been, how did you get that?
   B. Three dog night and similar contexts that foster transspecific contagion
   C. Eosinophilic meningitis, hookworm, rabies
   D. The dangers of domestication

Reading:


22 April: Individual Appointments to Discuss Semester Projects/Papers

29 April: Presentations of Individual Projects/Papers

6 May: Concluding Session

Presentations of Individual Projects/Papers – continued

Semester Summary is due – described on syllabus page 3:
Reflections on a semester of spots, sputum, contagion, corporality, microbes, and the co-evolution of anthropological, public health, microbiological, biomedical, etc. perspectives on infectious disease.