

Question 2a: *Explain how your area of interest follows from, or is an example of the traditions of medical geography.*

“Nothing perverts the Dutchman more, destroys his nerves and robs him of his natural strength and the endurance he inherited from his ancestors than the ever dominant and abusive consumption of warm or hot coffee and tea.” –I.J. van den Bosch, founder of medical geography in the Netherlands, from *Tegenwoordige Staat van Drente (The Present State of Drente)* 1795 (p. 426); quoted in *Foreign Primary Sources for Medical Geography and Geographic Medicine*, by Frank A. Barrett, 2003.

I will begin with a statement of my area of research interests followed by a discussion of how they are continuous with the traditions of medical geography. The foregoing quote demonstrates the historic tradition in medical geography of studying the effects of diet and nutritional behaviors on population health; at the same time, it also illustrates the sensationalistic understanding held at that time of the deleterious influences of coffee and tea, caffeine-containing psychostimulant beverages, on the health and vitality of the populous. Today caffeine is the most widely consumed psychoactive drug in the world (*National Geographic* 2005). Unfortunately, such sensationalisms continue to be present in modern medicine and official public health discourses about the widespread and rampant use of “drugs of abuse”—a catch-all category reserved for those substances currently prohibited. When growing use of these substances in the population is discussed in the media by government officials or agencies, there has frequently been a tendency to analogize their spread to something resembling either a highly communicable infectious disease rapidly being transmitted in the population or to a ‘social’ cancer metastasizing at an alarming rate. While this is nothing more than fear-generating disease imagery trumpeted by so-called “drug warriors” devoid of explanatory power or scientific basis, today there is a very real and medically grounded sense in which all users of “drugs of abuse”, no matter the particular substances or contexts in which they use, are clinically judged to be at-risk for developing a diagnosable mental disorder. This is because *official*

Congressional medical findings have become incorporated into medical definitions of mental illness. As Jones and Moon point out in their introductory text *Health, Disease, and Society: A Critical Medical Geography*, “Disease is therefore not only a biological state but also a social status which physicians have the power to confer or withhold. In taking such decisions and by following the norms of society, physicians are acting as agents of social control” (1992, p.6). The diagnostic framework of Substance Abuse mental disorder is based on the clinical understanding that all use of legally prohibited psychoactive substances is a sign of nascent psychopathology or, at the very least, greatly frowned upon (“all use is abuse”). Given the clinico-psychopathological correlation of Substance Abuse diagnostic criterion A3 that interprets a patient’s distress caused by recurrent or persistent legal problems as a pathognomonic indication of Substance Abuse mental disorder, any illegal substance use is seen as putting a person at risk for developing a diagnosable mental disorder or mental illness which “progresses” depending on how successfully or unsuccessfully he or she can evade detection by law enforcement officials. It can hardly escape mention that the incredible success of law enforcement personnel in apprehending those violating prohibition laws has helped to vastly expand the 2.3 million strong (and growing) American penal system, the largest in the world in sheer size and per capita—without a doubt, a major public health crisis of global significance (USDOJ 2005).

State legitimacy for enforcing absolutist prohibition against Schedule I substances derives from officially pronounced medical and scientific “findings” codified into law and subsequent law enforcement executed under the color of public health promotion and protection. Recognizing the sheer human rights abuses that derive from this regime, as a physician-medical geographer-in-training, I feel morally compelled to challenge the scientifically questionable medical pronouncements bordering on pharmacomythology

that undergird the enforcement of absolutist prohibition policies and that are uncritically embraced in medical and psychiatric diagnostic criteria for Substance Abuse mental disorder. While the substances in question are not risk-free, given their long history of use cross-culturally, it is highly suspect to make the medical claim that they are devoid of benefit, only abusable, unsafe, etc. These assertions must be put to the test of evidence-based research. But since domestic and international governmental restrictions severely limit biomedical research in this area as I outlined in question 1a, the only feasible route left to investigate how these psychoactive substances are being used beneficially in the population at large is to go into the field and observe, document, and analyze what people are doing and how they may be benefiting. I am interested in doing this work in order to document ongoing human abuses, to test the reliability of diagnostic criterion A3 for Substance Abuse mental disorder, and to see if beneficial uses in the population might point a way forward for future clinical practice and medical research. The urgency of this task is made all the more pressing given the increasing severity of prohibitionist law enforcement which has generated a massive incarcerated population in the United States and elsewhere and has indirectly led to the creation of a booming underground economy that fuels ongoing violence, both catastrophic and small-scale, both lethal and non-lethal, in addition to arms trading, governmental and police corruption, HIV and HCV spread, adulterated substance-related deaths, etc (Webb 1999; McCoy 1991; Steinberg and Mathewson 2005; Nordstrom 2004; Russell 2000; “HIV, harm reduction, and human rights” 2005; Wolfe 2004; Malinowska-Sempruch and Gallagher 2004).

The question I will now turn to is: how is this research that I have proposed in line with or an example of the traditions of medical geography? I believe that my interests are an example of the traditions of medical geography because they deal with 1) the

investigation of potentially medically beneficial plants and plant products being used in traditionally unexplored spaces, 2) issues related to health care access and delivery, and 3) issues of a political nature that have bearing on structural violence, human rights abuses, and public health concerns of global significance. Let us begin in the beginning. Medical geography traces its origins in the West to Hippocrates' disease geography work that led him to investigate causes of disease such as environmental influence and population morals (Barrett 2003). Barrett, a historian of medical geography, writes that the second use of the term 'medical geography' was in a 1792 work by German physician Leonhard Ludwig Finke called *An Attempt at a Universal Medical-Practical Geography* (p.1). This work, excerpted in Barrett's collection, demands a careful look because it is an example of a physician-medical geographer who is interested in employing medical geographic field work coupled with studies of the published 'topographies' of his time to understand not only the nature of health and disease states worldwide but also to discover medical practices that may be of interest to the family physician. He writes: "If anyone wants to try new medications and methods of healing, he will find sufficient opportunity in this book. These are all advantages which a family physician can draw from a medical geography" (p. 50-51). Finke is interested in "General Indigenous Medications of Different Peoples of the World" (p.37) (an idea he had for the original title of his work) because he recognizes that "many a medication owes its invention to some unknown people" which a "doctor becomes acquainted with accidentally [sic]" and subsequently makes popular (p.50). Finke astutely makes the distinction between the "medical history of man" and "the history of medicine" and that of a "people's pharmacology" based on "tradition and experience" as opposed to "an artificially learned pharmacology" (p.46-47). Finke is making an important distinction between what medicines he has been taught

about in his formal training as a doctor and those that are in use in the field. Clearly, he is interested in discovering what a “people’s pharmacology” has in store. Finally, in laying out the numerous areas of investigation useful for “conclusions to be drawn regarding the healthy and unhealthy states” of world regions, Finke identifies amongst these the consumption “foodstuffs, beverages, and spices.” In this category, he lists “Narcotic substances, opium – tobacco – hemp leaves, etc” (p. 37-39). It is impressive to note that the first self-described medical geographer, in his exhaustive list of all facets of geography relevant to health and disease, does not fail to mention cannabis use. A follow-up in this area of medical geography still awaits.

Finke’s interest in studying other cultures’ medical practices was re-proposed hundreds of years later in medical geography by Charles Good. Writing in 1980 with the criticism that international medicine is far too wedded to traditional biomedical approaches, Good proposes an “ethnomedical geography” that would incorporate “alternative systems of reality, belief, and behavior that figure so importantly in health and illness” (in Meade p. 94; also Good 2000). Good has in mind the incorporation of “traditional medical practitioners (TMPs)—including herbalists, diviners, midwives, fertility specialists, shamans, spiritualists and others” into WHO-style international medicine health planning in the Third World. Yet he makes clear that the ethnomedical approach is also useful in American cities where “non-establishment” medical systems and “self-treatment” persists. While Good and Wilbert Gesler, another medical geographer, went on to study alternative medicine in the United States (in Gordon 1998), it is certainly true that the ethnomedical geographic approach could be applied to understanding the decidedly non-establishment use of psychoactive herbs and their congeners in Western society today. There is good reason to believe that certain uses of

these substances are akin to a kind of neo-shamanism being practiced today (Winkelman 2000). In addition, many of the substances that I am interested in investigating could simply be classed as medicinal herbs, given that they are members of the plant kingdom and have traditional medicinal usages. Melinda Meade & Robert Earickson in their textbook *Medical Geography* (2000) and Wilbert Gesler (1992) in his first paper on therapeutic landscapes all identify medicinal herbs and plants as being under the subdisciplinary purview of medical geography. Meade and Erickson, in their chapter on human ecology, write that

Geographers have traditionally studied the creation of landscape, the mobility and composition of population, the determinants of economic activity and its location, and diffusion of things, ideas, and technology. All these are of consequence to medical geography. The landscape is composed of insects, *medicinal herbs*, and hospitals... [emphasis added] (21)

Wilbert Gesler's concept of therapeutic landscapes applies to the confluence of environmental, individual, and social factors that come together to make a certain place or situation therapeutic. One particular therapeutic landscape class that Gesler outlines is "traditional healthcare landscapes." On these, Gesler (1992) writes:

there is a long tradition that healing powers may be found in the physical environment, whether this entails materials such as medicinal plants, the fresh air and pure water of the countryside, or magnificent scenery. The pharmacopoeia of both folk societies and professional medical systems (Chinese, ayurvedic, unani, biomedicine) contains thousands of medicines made from leaves, herbs, roots, bark, and other materials found in nature. (736)

So, the relevant medical geographic questions with regards to people's use of psychoactive herbs would relate to understanding the contexts under which people are finding these substances beneficial, useful, or helpful. Can I, as a medical geographer, "see" any health benefits using a medical framework informed by transpersonal medicine, integrative medicine, pain management, stress reduction, and palliative medicine? Would subjective health measurement suffice, at least initially? Barrett (1986), in an excellent

essay on the concept and definition of medical geography, quotes the French medical geographer Picheral who, speaking on behalf of medical geographers, writes: “We act somewhat as a photographer when we bring to light the spatial difference in frequency. Nothing is explained, but a lot, is disclosed.” Barrett goes on to say: “Disclosure is the first step in analysis, and analysis is a pre-requisite to explanation” (in Pacione 1986, p. 27). In order to understand the benefits of psychoactive substance use clandestinely practiced, the first step is indeed one of disclosure: a task for medical geographers.

Medical geography has traditionally been concerned with issues related to health care access and delivery. The United Nations treaties that control psychotropic substances actually do not propose to banish the substances from the face of the Earth. Rather, what the treaties stipulate is that only national governments can possess and use these substances legally. They have complete control. This is not to say that other individuals who are not granted permission by the federal government have no access to these substances but simply that they are not allowed safe access. It should be noted that one of the most vocal and organized medical cannabis patients’ lobbying group in California calls itself *Americans for Safe Access* (www.safeaccessnow.org). The mission of this organization is to “ensure safe, legal access to marijuana for all who are helped by it.” Through legal action, this group was recently successful in forcing the California Highway Patrol to change its policy on the seizure of medical marijuana, thus improving ‘safe access’ for the medical cannabis patients in the state. Given the shifting region-by-region patchwork of countries and states that allow the medical use of cannabis, it is not unreasonable to predict that there is a population moving and migrating to achieve safer access to medical cannabis. Medical geographers can track this medical marijuana migration.

What has led to the creation of these access issues is the politicization of institutional medicine. Echoing the once-held rallying cry for the feminist movement—“the personal is the political”, in today’s environment we may be able to say: ‘the medical is the political.’ This falls nicely under Gesler’s conception of structuralist therapeutic landscapes and the attendant research concerns that these raise for medical geography include questions related to “hegemony and resistance, legitimization and marginalization, historical contingency, privatization of health, structural inequalities, and Third World development” (740). Gesler goes on to say:

the ideology of the medical model includes definitions of deviancy, establishes the authority of physicians, and stresses the biological aspects of disease. A specific example is the definition of alcoholism and drug addiction in terms of illness states as opposed to personal moral dilemmas. Those who ignore the moral-aesthetic norms of society, expressed as symbols, are labeled as stupid, insensitive, unlearned, or in extreme situations, mad. (740-1)

It is these latter “extreme situations” where those who use prohibited substances and are therefore law-breakers labeled as ‘mentally ill’ or ‘mentally disordered’, or simply ‘mad’, that I am interested in challenging. Is this a bona fide mental illness or wanton social control? In investigating the mental disorder or mental illness of A3-type Substance Abuse, I am in line with medical geography’s tradition of investigating disease geography.

Now, on to politics. Given the fact that cannabis legalization would interfere with the profits of numerous sectors of society including tobacco companies, pharmaceutical companies, alcohol companies, urine and hair testing companies, it would be worthwhile to use a political economy framework to understand the roots of the forces that are limiting access to this potentially beneficial substance. In a 1986 *Antipode* piece, Mohan called for a more serious engagement with the socio-political influences of health in medical geography. Ten years later, Dr. Jonathan Mayer used a political economy framework in conjunction with culture and disease ecology ones to create the “Political

ecology of disease as one new focus for medical geography” (1996). This is a vital framework in order to understand how political forces impact ecologically-embedded disease nidi and human exposure to these nidi. In this framework, the infectious pathogen, be it a virus or bacterium or prion, is seen a living (or quasi-living) organism that is ecologically embedded in the environment. Now, in shifting to the medicines and healthcare access side of medical geography, with regards to the controlled Schedule I substances that I am focusing on, the living organisms that now are shaped by political forces are plants (and fungi, but I’ll subsume them under plants for simplicity). All of the substances that I am interested are either plant or easily plant-derived. (One substance, DMT, can also be derived from human CSF (see Strassman 2001)). These plants, like all plants, are of necessity ecologically and evolutionarily embedded into the interconnected web of all living things, in the same way that pathogenic organisms are. They have a politically contentious status for a variety of reasons, and political economic forces shape the level, type, and consequences of human interaction with these plants. At issue are questions such as: why can’t a sufferer of multiple sclerosis get safe access to a plant they find to be medically beneficial? How did the consumption of a discovered fungus in a moist area come to be considered a risk-factor for a mental disorder? Or simply, how did plant possession come to be a sign of mental disorder? Why are neurotransmitter analogues only allowed to be expensively sold in purified pill form rather than in their ‘natural’ plant container which have the exact same molecules in them? To approach these sorts of questions, I would propose the political ecology of medicine as a focus for medical geography, with a sub-area reserved for human-psychoactive plant relations. Steinberg, Hobbs, and Mathewson, though not medical geographers, have recently laid solid groundwork for geographic engagement in human-psychoactive plant relations

(Steinberg *et al.* 2004; Steinberg and Mathewson 2005). The ‘political ecology of medicine’ is related to (and perhaps a sub-category of) the ‘political ecology of health’ framework that has been used by Richmond *et al.* (2005), Harper (2004) and Kalipeni and Oppong (1998; 2005).

The final area in the tradition of medical geography that I see my interests as being derived from is the subdiscipline’s concern with structural violence and human rights, in line with the work done by Paul Farmer and others such as and Oppong and Kalipeni (1998; 2005). In his book *Pathologies of Power: Health, Human Rights, and the New War on the Poor* (2005), Farmer gives a quotation in an endnote for his chapter “On Suffering and Structural Violence” by a scholar he regards highly: Ignatieff. He writes:

We know from historical experience that when human beings have defensible rights—when their agency as individuals is protected and enhanced—they are less likely to be abused and oppressed. On these grounds, we count the diffusion of human rights instruments as progress *even if there remains an unconscionable gap between the instruments and the actual practices of states charged to comply with them.* [emphasis added] (273)

What this means to me is that, at times, acknowledgement of human rights and their abuses will not come from the state that is obligated to respect human rights and therefore others must speak out and give voice to the oppressed. Farmer documents egregious human rights violations in his work in Haiti and elsewhere by going to these places and “bearing witness” to see and understand the gravity of the abuses. I too am interested in bearing witness to human rights abuses and exposing origin and extent of the structural violence that causes them. The human rights I am interested in are: the right to health, the right to culture, and the right to freedom of religion, thought, and conscience. Only when we understand the benefits of psychoactive substances when viewed in the safe spaces of use can we recognize the human rights abuses attendant with their prohibition.

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