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Society and the Environment

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Final Paper

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Ralph Waldo Emerson once said, “Prevention is better than cure”. According to sustainable environments and health, he was right. Holistic and environmental medicine, and economies collectively work to prevent and create sustainable environments that preserve health and culture around the earth. It is important to acknowledge that through these economies and medicines, humans are not participating in capitalistic ideals—instead turning towards environmental options to improve the health of culture, humans, and ecology. The purpose of this paper is to discuss the connection between environmental and holistic medicines and their relation to eco-cultural health and environmental economies through examples of health, capitalism, and medicine to show why human health, ecological health, and cultural health are corresponding ideas.

Environmental medicine is a branch of medicine that examines the interconnection of environmental factors and human health, including physical, emotional, and mental responses (Oxford Dictionary). It explores the way the world around us can be toxic and how those toxins affect health. Human health, ecological health, and cultural health are directly proportional. When the ecological health of the earth is suffering, so does human health. When human health and ecological health suffer, so does cultural health. For example, the Mongolian Grasslands, which will be discussed later in the paper. Environmental medicine could perhaps create a way to relieve some of this suffering.

In the article, “Eco-cultural health, Global Health, and Sustainability,” David J. Rapport explains how crucial it is to first determine what “health” means. Rapport describes eco-system health as having three properties: organization, vitality, and resilience. Organization refers to the maintenance of biotic structure, including interactions between species and the environment, and its diversity. In other words, organization can be considered as the structure of an ecological system. Vitality refers to liveliness and how well a system can function. A lack of vitality leads to the third property of resilience. Resilience is the ability to “bounce back” or rebound from disturbance or disruption (Rapport 1041).

Similarly, eco-cultural health is separated into the same three properties. Organization in terms of eco-cultural health is the alignment of culture and biotic structure. Vitality is the capacity of a system to be sustainable so either nature or culture is diminished. Resilience is the maintenance of coping mechanisms to allow the system to rebound after biological or social perturbations (Rapport 1044).

Once the properties of health have been determined, it can then be determined if health is being compromised. Data from statistical agencies begin to show the correlation between changes in the environment and human activity (Rapport 1040). For example, the earliest humans were most at risk for “encounters with predators, famine, and vector-borne diseases” (Rapport 1042). With the changing environmental conditions, the diseases changed as well. When hunting and gathering wasn’t the main source of survival, humans turned toward more agrarian societies. When this happened, new kinds of threats appeared to the human race. Infectious disease was a direct result of agrarian society, specifically, as more and more people lived in closer proximity to one another. Through this, it is shown how the environment correlates with human health and what kinds of diseases they are more prone to.

In the 1960’s, Rachel Carson worked on studies proving that these human activities are capable of hurting entire ecosystems. Rapport states, “Carson focused on the production and use of man-made chemicals, particularly those substances that were long-lived in the environment.” These man-made chemicals are treated using the concept of environmental medicine. An effect of Rachel Carson’s research was the statistical agencies gathering data to document changes in the environment and its assessment. The anthropological changes in the environment that were most documented were land-use, overharvesting, release of waste residuals, introduction of non-native species, and extreme natural events. The statistical agencies also discovered that the three main drivers in the deterioration of the earth and loss of biodiversity were habitat fragmentation and destruction, over-exploitation of species, and the introduction of exotic species (Rapport 1040).

Environmental medicine looks at these causes and changes in the environment to focus on how they subsequently affect human health. Environmental medicine only focuses on outside factors such as ozone depletion, air and water quality, UV radiation, and chemicals whereas other fields of medicine, such as microbiology, focus on human-to-human infection. Therefore, its purpose is to look for cures to the diseases these external factors create. Environmental medicine is closely associated with holistic and alternative medicines. Holistic medicine can work in conjunction with environmental medicine to create a natural and more effective response to the decline of eco-cultural health. Some types of holistic medicine include energy healing, acupuncture, herbal therapies, natural food plans, crystal healing, and mediation (Holistic Healing). By taking a more natural approach to how medicine affects the human body, humans are not only being more careful in terms of human health, but we are also reducing the amount of chemicals and toxins that are therefore released into the environment.

The concept of ecosystem health has relevance to evaluating imbalances, to human activity, and to the consequences of human health. And at the same time it shows how the interconnections and interdependence between nature and culture have become clear. An eco-cultural-health approach looks at the health of ecosystems in terms of interactions between humans and the environment. This approach seeks to, “sustain and foster cultural values, beliefs, institutions, knowledge systems, and practices that are favorable to maintaining the health of ecosystems while enabling humans to meet their basic needs” (Rapport 1044).

Rapport also acknowledges the connection between diseases and the rise of these developing medicines by saying, “Recognition of the linkages between ecosystem health and human disease risks has spurred trans-disciplinary programs in faculties of medicine, public health, veterinary medicine, and environmental management and environmental studies” (Rapport 1043). Holistic medicine takes the connections of the whole person—emotional, physical, spiritual, and mental—into account when the process of healing begins. It is based on the natural principle that, “the whole is comprised of inter-reliant parts, and that when one part is not functioning at the optimum levels, it impacts all of the other parts” (Holistic Healing). The mission of the Department of Environmental Medicine is to make advances in understanding the way in which the environment prevents and ameliorates human disease (Department of Environmental Medicine). Both these practices of medicine focus on the healing and prevention of health.

The arguments of “treat” vs. “prevent” are very prominent issues in the fields of medicine. Doctors, medical students, and others that are not in the medical field are aware that man-made chemicals are huge contributors to, for example, ozone depletion and cancer. They understand that until more is done to combat artificial chemical use, nothing will change. Once the larger interconnections are made, then an ecosystem health approach addressing prevention can be founded. Rapport’s technique in posing questions like “Why does this disease occur” or “How can I prevent this?” serves to integrate the idea of a healthy ecosystem into the improvement of human well-being, and inspires further inquiry. This thought process will theoretically make the transition from using medicine, to treat surface level issues, and to really understanding the issues. Rapport argues, “as they [medical professionals and students] become more aware that reducing risks to human health requires fostering ecosystem health, they can become far more effective in encouraging the transition to global environmental, social, and health sustainability” (Rapport 1043).

When treating an ailment instead of looking towards prevention or digging deeper into the problem, as holistic and environmental medicine do, humans play into a much more significant problem. Take for example, pharmaceuticals and their part in capitalism. By making and producing medicines like pain killers, consumers are taking naproxen to ease their pain instead of dealing with what really could be going on. If human health was investigated to prevent and deal with on a macro scale, then pharmaceutical companies would not be profiting. Meanwhile, holistic and environmental medicines begin to get to the root of the issue instead of dealing with the issues on the surface. Furthermore, another example would be, if a person is getting chronic headaches, it may be more beneficial to look at the core problem. Is this person not getting enough sleep? If they are getting enough sleep, could it be that they are not sleeping well due to anxiety? Holistic medicine would take a look at this person and heal the emotional, mental, and physical symptoms. Environmental medicine would look to see if air toxins could be influencing the person’s chronic headaches, and would draw on this knowledge to find a sustainable solution to their medical problem. Both types of medicine encourage environmental growth, rather than providing the subject with drugs that have been the product of capitalism.

Capitalism and sustainable development are mutually exclusive. To protect the environment we need to develop alternative economic systems that do not put greed as a priority before necessity (Sustainability, Capitalism, and Evolution). For example, Rapport uses eco-cultural health deterioration to show how greed and the thirst for money can ruin health, ecosystems, and culture. For example, The Inner Mongolian Grasslands. Herders have developed their nomadic lifestyle, meaning that they have adapted to the grasslands by moving their herds as seasonal grass became available. They kept their land sustainable this way because it maintained low grazing pressure. This also was closely related and connected to their culture. Then, when a large influx of farmers and pastoralists transformed their land into agricultural lands, the symbiotic relationship of culture and nature was disturbed. Soil nutrients were depleted, grasslands underwent desertification, and even after rebounding, the land was never the same. The health of millions of Mongolians is decreasing due to increasingly harsh environments. The continuation of their ecological and nomadic way of life preserved their land (nature), their culture, and therefore the health of their people and now, there is little hope of the improvement (Rapport 1044).

It is quite obvious that humans are exploiting the Earth’s resources in an unsustainable manner, which accelerates environmental degradation and a loss of biodiversity. Nature and the earth’s resources go beyond the role of fulfilling human needs. Capitalism, however, thrives off of the concept that the earth is solely here for our fulfillment. So far, "proponents of sustainability have emphasized social equity and justice for future generations, whereas nature is still viewed as a service provider that should be maintained for practical reasons” (Sustainability, Capitalism, and Evolution). Most industries have realized that humans are apt to consume, without much convincing.

# Typically, medicines were traditionally thought to be inelastic. An example taken from Kalman Applebaum, who wrote the article “Pharmaceutical Marketing, Capitalism, and Medicine: A Primer,” is that no one who has high blood pressure will start taking antihypertensive medicine, just because they saw it on a billboard. It is assumed that doctors prescribe drugs to patients who need it based on scientific fact as opposed to advertisements. However, pharmaceutical representatives can persuade medical information. There is one full time drug representative for every seven doctors in the United States. The marketing budget for Pfizor’s Lipitor in 2002 was $1.3 billion—the same budget as the National Institute of Health’s budget for diseases such as Alzheimer’s, autism, and sickle cell disease. It is impossible not be persuaded or influenced by these companies. In order to keep making profit, pharmaceutical companies must take a part in capitalism (Pharmaceutical Marketing, Capitalism, and Medicine).

# Martin Shkreli, a hedge fund manager who specializes in healthcare business, is the co-founder of MSMB Capital Management and the founder of Turing Pharmaceuticals. As the executive chairman, Shkreli rasied the price of Daraprim, a drug used to treat toxoplasmosis and prevent malaria, from $13.50 to $750.00 per pill. Daraprim has the potential to help people with HIV and malaria, but with a 5,455% price increase; most of those who are in need of the pill are unable to obtain it. In an interview with CNN recently Shkreli admitted that he wishes he had raised the price even higher—“No one wants to say it, no one’s proud of it, but this is a capitalist society, capitalist system, and capitalist rules, and my investors expect me to maximize profits, not to minimize them or go half, or go 70 percent, but to go to 100 percent of the profit curve that we're all taught in MBA class” (Martin Shkreli). Even though Daraprim does not fit under the umbrella of environmental medicine, it does demonstrate and provoke the debate of providing healthcare to individuals that could potentially benefit in society, yet capitalism takes away the option. The money is more important than the improvement of human health.

The goal of a sustainable community is to establish, “local economies that are economically viable, environmentally sound, and socially responsible” (Growing a Sustainable Economy). Community efforts can preserve land, encourage sustainable agricultural practices, and facilitate production and distribution of foods from local producers. Economically healthy businesses industries with little to no environmental impact on the community should always be encouraged. As should working with local business and government leaders, non-profit organizations, and citizens groups to guide the economy and invest in sustainable community initiatives (Growing a Sustainable Economy). By supporting local economies in environmentally friendly ways, a big step is made in decreasing carbon emissions, making the ecology healthier. According to Rapport, good governance is essential because it is the only way communal goals are beneficial to the management and conservation of human, ecological, and cultural well-being. Economic sustainability is dependent on the health of ecosystems: forest and grassland ecosystems or freshwater and marine ecosystems. These ecosystems provide many human needs. The vitality of cultural traditions is important for the maintenance and transmission promoting the harmonization of human activities with the environment. In turn, this makes human, ecological, and cultural health more sustainable (Rapport 1043).

Once human and ecological health has made significant improvements, than eco-culture will also be prevented. Cultural, ecological, and human health cannot improve through capitalistic ideals or unsustainable ecologies and medicines. Holistic and environmental medicines begin to determine the root of the issue instead of dealing with surface level issues. Because of their interdependence, it is important to keep medical, economical, cultural, and ecological health environmentally friendly. Perhaps to truly prevent and sustain our earth, we must first prevent diseases, preserve culture, and economically sustain humans.

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