IN THE PURSUIT OF NATURALNESS

DIAGNOSING THE MOVEMENT TOWARDS ALTERNATIVE MEDICINE IN THE UNITED STATES

by

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What's Natural About Alternative Medicine?

Uganda is where Heather Zwickey, Dean of the Helfgott Research Institute in the National College For Natural Medicine (NCNM) in Portland, Oregon, begins telling her story. Our interview was held over the phone and opened with where her passion for alternative medicine began. This was when she used to study extreme cases of HIV and Tuberculoses across India, Nepal and East Africa. "Often times," she said, "there was only one medical doctor for every 2,500 patients, and hardly any access to medical technologies or drugs." Zwickey described how, when patients had the opportunity to receive medical attention, they would bring along a local healer who practiced traditional therapies supplementally to the care offered by the conventional doctor. This eventually lead Zwickey, who was measuring virus counts at the time, to realize that the natural medicine provided by the healer routinely lessened the severity of the viral infections. This realization influenced Zwickey to believe in the healing power of natural medicine and she since has been working in the field of clinical research of alternative therapies. The experiences that lead Zwickey to believe in the importance of natural therapies coincides with a growing awareness of different ways of healing within the United States; and by different, I mean alternative to the mainstream biomedical beliefs and practices.

"Natural," a word that holds many meanings within US society, is both stigmatized and embraced in US American discourse. Alongside the modern-day Green and New Age movements, *naturalness* is becoming a more prevalent subject as environmental, social, political and economic realms face new concerns (Coulter and Willis 2004). Issues of unintended consequences, environmental contamination and degrading human health, for instance, are quickly leading a weary public to question the impacts of human civilization and begin exploring, and even romanticizing, nature. A definition from the Merriam-Webster Dictionary describes *nature* as "the physical world and everything in it (such as plants, animals, mountains, oceans, stars, etc.) that is not made by people," where *natural* things are "not containing anything artificial" (2015). Naturalness is widely perceived to be *better* because "people view damage caused by humans as worse than that caused by nature" (Li and Chapman 2012). If general definitions of nature exclude humanity, this would mean the technologies we create that have benefitted us as a species are also artificial. Science, the most widely accepted system of determining knowledge, is constructed by humans to better understand the world and improve our livelihoods. However, enormous betterments in human health over the past century, as the result of medical advancements, have demonstrated some detrimental consequences too. Unintended side-effects from pharmaceutical drugs, for example, demonstrate that flaws occur within the current medical system. While countless instances of victories and defeats result from human-created entities, I turn my attention to medicine and wellness, where nature, technology and science directly connect.

Medicine is so inherently ingrained in how societies perceive their bodies, how they define what is *natural* and what isn't, and how they accept or reject the help of science and technology. My evaluation of medicine begins here: at the crux where medical ideologies and practices meet. I set my attention on the United States where I examine varied perceptions of *naturalness* in medicine, its popularization and it's likely trajectory for the future.

In the past two decades, the US has seen an enormous influx in the use of alternative forms of medicine seeping into the predominant biomedical (allopathic) healthcare system (WHO 2001). Exploring why this is happening is the main reason why I chose to focus on the US specifically (though many overlaps apply to other developed nations). The main question I ask is: What is *natural* in the context of alternative medicine?

My analysis includes an examination of US American utilization of alternative medicine, perceptions of science and technology, and notions of *naturalness* using preexisting publications and my own small-scale survey of mainly individuals in my social reach. In doing so, I come to the conclusion that the increase use of alternative medicine within the US is the result of a growing preference towards *natural* things.

Curing dis-ease: A History in Theory

The genesis of "allopathic" medicine, the medical system that is most predominant in today's world, took place in the fourth century B.C.E in Greece. Hippocrates, or the "father of Western medicine," revealed a new method of treating disease by understanding sickness and cure as artifacts of nature and not of demons and gods. This initial orientation towards empirical manifestations of disease— that moved away from religious and spiritual rationales— governed the practice of medicine in the several centuries that followed (Whorton 2002). The Hippocratic ideals incorporated the essence of the scientific method, a procedure that hinges on the notion that truth exists as long as it is rigorously tested. In modern-day medicine, we observe tokens of this procedure in use of clinical trials, health surveys and the routine check-up procedures that the majority of the population is so used to.

While science in medicine is practiced virtually everywhere, it would be reckless to forget that this is not the only expression of *truth* in medicine throughout the world. Traditional medicines, or "evidence-based" medicines, exist to some degree where precolonized and pre-globalized communities have resided for generations (such as Indian Ayurveda, Traditional Chinese and Japanese Medicine, Native American healing, and many forms of shamanism and folk remedies, to name a few). Because of it's sciencebased (rather than traditional evidence-based) approach to medicine, allopathy has found its niche as a universal medical system that abandons tradition, religion and spirituality (González-Crussi 2007). Analyzing the historical reasons of why allopathic medicine is found in virtually every region of the world paints a picture of *medical hegemony*. Hegemony, the Gramscian notion of ideological domination achieved in society, in medicine refers to the allopathic system as the dominate form of medicine throughout the world due to Western regimes of colonization and globalization (Banwell et al. 2013). As Banwell et al. (2013) explain, "Epistemological hegemony represents a concern for the domination of one view of knowledge and the subordination of all other forms." This provides an interesting background for understanding the dynamics between scientific knowledge and traditional, evidence-based ¹ knowledge.

It would again be reckless to assume that allopathic is the only articulation of medicine in the Western world. Similar to other developed nations, alternative forms of

¹ I will now refer to evidence-based medicine as "alternative medicine" or "Complimentary and Alternative Medicine" (CAM) which, by definition, allude the forms of medical practices that do not fall under the umbrella of allopathic treatment.

medicine have been practiced to some degree, and are continually increasing in popularity (Fisher and Ward 1994, Eisenberg *et al.* 1997). In the US, alternative therapies have been recorded to be present since the 1800s (Whorton 2002). At that time, practitioners of folk medicine, "root-and-herb" doctors, and suppliers of Native American herbs worked with some degree of professionalism but out of the main spotlight of what has developed to become conventional medicine. Nearing the early 17th century, Samuel Thomson, a pseudo-physician from New Hampshire, gained recognition for his advocation and practice of herbalism that originally derived from his distain for standard therapies. His belief, that conventional practitioners sent sick bodies "galloping out of life" because of their use of poisonous remedies, was shaped by his mother's death of measles that he blamed on the improper administration of conventional treatments. Thomson later contracted measles but safely recovered by the use of his own treatments of herbal syrups. His interpretation of medicine, though it brought about anger and skepticism from conventional practitioners, has only cultivated more interest and use within the US (Fillmore 1986).

"An ideology, or belief system, is a condition of learning and knowledge. It is not fragmented into 'religious,' 'political,' 'social,' or even 'scientific' beliefs." —Lola Romanucci-Ross and Daniel Moerman (1997)

Understanding the human body, as it grows, heals and exists within an environment, is a product of culture; thus, it is rooted in history and tied to the dynamic interactions between people and ideas. From society to society, health and sickness are perceived in ways that are completely unique, making treatment and medicine equally distinct. Throughout the Western world, the ruling method used to understand the body is by means of thorough scientific investigation, a practice of isolating the bodily systems in order to recognize and treat illness. As it does with Western culture, health care practices in the Global South also indicate the core philosophical paradigms of the society in which it originated (Eskinazi 1998). In Ecuador, for instance, a child who cannot sleep at night is assumed to have "susto," or fear, and is treated by getting patted down with bundles of herbs from the countryside; whereas in the United States, the same child might be diagnosed with a psychological disorder and prescribed a pill a day. While both methods might cure the child of insomnia, one form of medicine is much more widely accepted and accessible than the other.

Truth and knowledge, as integrated into cultural ideology, hold tremendous power within society. In the Western world, science has matured into a power that has ultimately extended across the rest of the globe, arguably being the single most influential body of knowledge possessed by humanity. As applied to medicine, the scientific method is structured in a manner that invokes a certain way of understanding the body in sickness and in health. This method functions on the process of *reductionist* thinking which simplifies, orders and contains respective parts to, "in essence, breakdown the ambiguity, resolve any paradox, achieve more certainty and agreement, and move into the simple system zone" (Plsek and Greenhalgh 2001). The first manifestations of this procedure was observed with the study of anatomy originating in Alexandria, Egypt around 300 B.C., where Greek communities had been long established (González-Crussi 2007). The act of dissecting a body, labeling it's respective parts and learning their functions, recognizes that each component can be understood separately and therefore individually treated when it dysfunctions. "To measure, to compare, to predict:" this is the regime of the medical scientist (Romanucci-Ross and Moerman 1997).

What is arguably lacking in this pursuit of medical truths is systematic thinking, or *holism*. Holism is a theory of comprehending the body as a complex system of perpetually moving parts, each of which relies on the successfulness of the whole. When a body is diseased, an imbalance occurs within the being. In other words, an individual is considered an indivisible whole, instead of anatomic parts. The holistic lens is predominately common in forms of alternative medicine such as acupuncture, chiropractic, homeopathy and naturopathy (Eskinazi 1998).

Another theory devised mainly in alternative therapies is *vitalism*. This is the belief that "natural activities of the body are driven by a special force, one that is unique to living beings that permits them to go on living" (González-Crussi 2007). Bodies exist because of this essence, and could not survive without it. This is where vitalist thought excludes the *mechanist* notion that everything can be explained. In opposition to vitalism, mechanism holds that living and non-living entities can be entirely described by physical causes. Life, to a mechanist, is simply an exceptional combination of chemistry and physics.

These theories (vitalism, reductionism, holism and mechanism) provide the scaffolding for conventional and unconventional modes of therapy in the United States. Allopathic medicine (otherwise known as conventional medicine, biomedicine or modern medicine) generally sits on the belief that the functions of the body should be simplified, organized and partitioned to best understand the correct treatments to administer (Fontanarosa and Lundberg 1998). The body, in biomedicine, is a complex machine that can be manipulated and healed with the careful use of drugs and therapies (Angell and Kassirer 1998).

All drugs and therapies must go through a system in which they become legitimized and put on the market. Clinical trials, or rigorous scientific testing for new treatments, provides reliable information about the efficacy, safety and effects of drug ingredients and therapeutic methods. "No longer do we have to rely on trial and error and anecdotes. We have learned to ask for and expect statistically reliable evidence before accepting conclusions and remedies," (Angell and Kassirer 1998).

In the US, alternative medicine is constantly scrutinized for not having scientifically reliable treatments. This is one of the main reasons alternative therapies are not readily accepted in our modern medical system (Eskinazi 1998). Even the name for this medicine, "alternative," tells us its position in respect to the mainstream healthcare system. The dynamics of medical integration within the healthcare system has positioned alternative medicine as secondary therapy, meaning it is primarily used by the public to compliment their already existing conventional treatments. This is why alternative medicine is also called *integrative medicine* and *Complimentary and Alternative Medicine* (CAM).

Acupuncture, herbalism, Ayurveda, chiropractic, homeopathic, naturopathic, massage, meditation, energetic healing and yoga are several examples of CAM that exist within the US. These forms of therapy rest upon a slightly different belief system about the body. Vitalism, manifests in these practices in various ways. "Homeopathy speaks of a 'spiritual vital essence,' chiropractic refers to the 'innate,' and acupuncture is said to involve the flow of 'qi'" (Kaptchuk and Eisenberg 1998). Treatment with these methods aims to restore the healthy flow of vital energy throughout the body, thus using the body's own natural healing sources in a non-invasive way (Kaptchuk and Eisenberg 1998). In addition to "integrative" and "CAM," these medicines are colloquially referred to as

natural medicines, perhaps because of their non-invasive and wholesome practices. This is only one instance as to why alternative medicines might be regarded as *more natural* than conventional therapies.

The Evolution of Medical Fields

Without modern technologies, such as X-rays, vaccines, and chemotherapy, humanity would still be facing health tragedies that we now can handle quite easily. Angell and Kassirer (1998) state that "In less than a century, life expectancy in the United States has increased by three decades, in part because of better sanitation and living standards, but in large part because of advances in medicine realized through rigorous testing." Europe (where biomedicine originated), the US and other regions of the Global North, have thriving healthcare systems where the pharmaceutical industry, research institutions and hospitals have established strong networks within the economy. Allopathic medicine continues to be the most mainstreamed healthcare system of the modern day, existing in even the most remote areas of the world. Pharmaceutical drugs, medical technologies, and licensed practitioners are present in even the smallest of communities in areas as secluded as the Andean Highlands and villages in rural Uganda.

While the introduction of allopathic practices remains ever-growing internationally, traditional healthcare stays prevalent in nearly all countries. Developed countries, such as Canada and Germany, have 70 and 75% of their population using some form of CAM, where developing countries have varying scales of CAM utilization; China and Columbia are at 40%, for instance, 71% in Chile and 80% in some African countries (Bodeker and Burford 2007). Despite these statistics, a large number of people use traditional medicine as their only form of treatment. While in some countries there is an observed decline in the use of CAM, many more nations have just recently been faced with new demand for therapies that are unconventional to biomedical thought and practice. In the US, popularity of alternative medicines has steeply increased since 1995, as observed by the World Health Organization (WHO 2001). In 1997, "the visits to practitioners of alternative therapy [...] exceeded the projected number of visits to all primary care physicians in the United States by an estimated \$243 million" (Eisenberg et al. 1998). Chiropractic and massage accounted for half of alternative medicine visits at that time; where acupuncture, commercial dieting and herbalism also were popular. Visits to CAM practitioners have continued to outnumber visits to primary care providers, according to Groopman (2008), and this, I posit, is due to the more frequent amount of treatments that alternative therapies require. Eisenberg and colleagues (1998) demonstrated that the patients of alternative medicine most commonly received relaxation therapies, chiropractic, massage and energetic healing for back problems, digestive problems, allergies, headaches, depression and anxiety. These therapies commonly call for more frequent visits due to the chronic nature of the illness.

Movements in Alternative Medicine

"There is no alternative medicine. There is only scientifically proven, evidence-based medicine supported by solid data or unproven medicine, for which scientific evidence is lacking." —P.B. Fontanarosa and G.D. Lundberg, Alternative Medicine Meets Science (1998)

Historically, alternative therapies have been stigmatized to some degree in the US. In an interview with Dr. Ryan Bradley, assistant director at the Helfgott Research Institute of NCNM, he noted that natural practitioners once were "*scared* of being scrutinized or judged by conventional doctors and the Food and Drug Administration (FDA) for not being legitimate or professional [...] now, things have changed." According to Dr. Bradley, the growth of research and clinical trials, coverage from insurance companies and the overall cost per appointment have catalyzed a growing awareness of alternative medicine in the US. While this movement has generally been met with acceptance and participation by the public, conventional institutions have many reasons to reject this medicine as being unsafe, unreliable and invalid.

This lack of acceptance branches from the well-established principle that, no matter what, a product or service that is lacking scientific testing of it's efficacy should

never reach the market. Scientific testing requires the "marshaling of rigorous evidence of safety and efficacy, as required by the FDA for the approval of drugs and by the best peerreviewed journals for the publication of research reports" (Angell and Kassirer 1998). This legal standard is precisely what initiated the Office of Alternative Medicine to be established by Congress in 1992 within the National Institutes of Health. This office, now called the National Center for Complimentary and Integrative Health (NCCIH), was mandated to conduct research and submit reports about the practices "that are not always well-addressed by conventional treatments," (NCCIH 2014). Despite the accumulation of several research grants and the high public expectations, NCCIH has disappointingly lost speed and published only a fraction of reports they promised to complete. Eskinazi (1998) argues that this occurred because the FDA is designed to regulate conventional drugs and practices that are not yet available to the public. Alternative therapies, on the other hand, are already being practiced; this consequently lessens the incentive for research because it rarely leads to economic benefit. Eskinazi (1998) adds, "Research into homeopathy or medicinal plants usually does not lead to economic advantages for sponsors, because these products are not proprietary." Additionally, inadequate research for conventional drugs and practices commonly appears for rare conditions and diseases that do not deem economically profitable. Within a society built upon profit-model industries, services like alternative treatments struggle to compete in the healthcare market.

Policy and Regulation

The current system of legal regulation for CAM in the US is founded on two frameworks: the Dietary Supplement Health and Education Act (DSHEA) of 1994 and the Federal Food, Drug and Cosmetic Act (FFDCA) of 1938. Both of these legal enactments ensure that the testing and promoting of products and practices meet high standards for the approval of the FDA. Where the DSHEA encapsulates dietary ingredients, like minerals, vitamins and herbs, the FDCA regulates drugs and medical devices (such as acupuncture needles). In the United Kingdom, a General Code of Ethics encourages alternative practitioners to be covered by insurance and comply with a Code of General Ethics that forbids specific medical acts from being practiced by an individual (WHO 2005). Having a similar presence of CAM utilization as the UK and other European countries, US medical applications are governed by the American Medical Association Code of Medical Ethics that requires a high degree of professionalism and adherence to the legal frameworks at play (AMA 2015).

Insuring your Health

Zwickey is a firm believer that insurance companies play a crucial role in the success, or lack there of, of the alternative medicine movement in the US. She told me that a barrier to the growing popularity of CAM use is the lack of insurance coverage. This claim can be supported by a survey conducted in 1997 by Wolsko *et al.* that collected personal information regarding CAM use and insurance plan coverage of 2,055 adults; highlighting a strong correlation between CAM use and the extent to which insurance companies cover alternative therapies. Their results demonstrate that "8.9% of the overall population accounted for more than 75% of the 629 million visits estimated to have been made to CAM providers in 1997," (Wolsko *et al.* 2002). Ben Marx, head of the clinical research department at Oregon College of Oriental Medicine (OCOM), said in an interview that most insurance companies in Oregon now have the option for alternative therapy coverage as a premium that costs extra. According to Zwickey, insurance coverage is the most logical reason why most individuals of middle and lower classes are not increasing in participation in CAM as quickly as the predominately upper class demographic.

Can Everyone CAM?

If the CAM movement hinges on the matter of accessibility, the question next is *what characterizes a population who uses CAM*? Thankfully there are a wealth of published surveys about CAM use in the US. A highly cited study by David Eisenberg and

colleagues (1998) concluded that, between 1990 and 1997, CAM use was found to be more common among white individuals and less among other racial groups; least commonly used in African American populations (Eisenberg et al. 1998). The National Center for Health Statistics (NCHS) from the Center for Disease Control and Prevention (CDC) continues to produce in-depth surveys on this matter that illuminate the trends of CAM use by adults over time. Their 2002 survey proved that 62% of the national population used some form of CAM that year, and minority groups were observed to use a more substantial amount than in 1997 (71% of black adults and 61% of Asian adults) (Barnes *et al.* 2004). The most recent publication by the NCHS was released February 10, 2015 and demonstrates new sociodemographic information from 2002 to 2012 specifically regarding the use of yoga, qi gong and tai chi. Observations proved an overall increase in patterns of use among races, though white adults demonstrated the fastest increase in use over other racial populations (NCHS 2015).

According to Eisenberg *et al.* (1998), citizens with some college education reported higher use (50.6%) than with no college education (36.4%), and people with annual incomes above \$50,000 (48.1%) rose above those with lower incomes (42.6%). People aged 35 to 49 years sought out alternative therapy (50.1%) more than those who were younger (41.8%) or older (39.1%), and women generally averaged higher (48.9%) than men (37.8%). Distributed over the US, use was more common in the West (50.1%) than any other region of the country (Eisenberg et al. 1998). Furthermore, adults living in rural areas were less likely to use alternative medicine than those who were living in urban areas (Barnes *et al.* 2004).

To wholly understand the patterns in CAM use across the nation, it is important to focus on the disparities in access to health care due to ethnic and socioeconomic status. In their book, *Race, Ethnicity, and Health: A Public Health Reader,* LaVeist and colleagues (2012) state: "to shift exclusively to the language of ethnicity clearly moves toward a greater emphasis on people's cultural and behavioral attitudes, beliefs, lifestyle patterns, diet, and environmental living conditions." The oppression of non-white racial groups is stitched into the historical fabric of US development; and consequences for minority populations continue to exist within social, political, economic and environmental structures. In the health care systems, minority ethnic groups receive a lower quality of

care compared to white populations spanning a broad range of health care services. LaVeist (2012) adds that "given the historical significance of the African American experience in the United States, most notably the group's history of systematic exploitation and socioeconomic underdevelopment, exploring the health status of this particular group provides an appropriate lens for examining the concept of racial and ethnic disparities in health." When we examine the current demographic of CAM users, issues of insurance coverage, environmental justice and physical accessibility to alternative clinics inhibits certain populations to receive the care that has potential to benefit them.

From her experience in the field of natural medicine, Zwickey expressed that there are two main groups of people who seek alternative therapy. The first are individuals trying to prevent disease. This population, she noted, are usually older, educated women who have the time and economic means to spend preventing illness. Marx and Zwickey both concluded that there is a huge demand for relief from chronic illnesses, such as asthma, back pain and heart disease, which can be attributed to environmental influences. There is more environmental pollution than there has ever been, resulting in more diseases and a lower quality of health (WHO 2001). Zwickey explained how the increase in cases of Parkinson's disease has been linked to exposure to pesticides (as just one of many examples of chronic illness that has been caused by the exposure to toxins in the environment). "The second [group of people who seek alternative therapy] are people who have not been served by conventional medicine and who are looking at alternative medicine as something new, when conventional medicine can't help." Marx added, "A lot of it has to do with the dissatisfaction on the part of patients with Western medicine. I have many patients who say that nothing they've tried has helped."

This dissatisfaction with modern medicine brings up an interesting argument against conventional methods. Marx, along with his colleagues, experience treating patients who complain of the adverse effects of drugs, the overprescribing of drugs, and an overall discomfort in the sterile environment of the doctors office. These observations are derived from and signify how a "rational" approach to healing, with an undivided attention to science and unwavering faith in technological fixes, motivate allopathic institutions to consequently become problematic for the patient. Drug side-effects, for example, are increasing overtime, partly because the effects do not surface until much later in a patients life, says Marx. During a phone interview with Dr. Jerome P. Kassirer, former editor-in-chief of the *New England Journal of Medicine*, he commented on the issues with conventional practices, saying that, "There are so many flaws: errors in diagnoses, clinical trials, drugs, *et cetera...*" Coming from a background of traditional education in science and biomedicine, Dr. Kassirer understands the serious drawbacks in his field of medicine; though he quickly added after that "there are more [flaws] in homeopathic and alternative medicine. Many, many more" (2015).

Alternative medicine, for the purpose of this article, is the grounding point to which I apply theories of "nature" and frameworks surrounding science and technology in modern US society. Medicine, like eating food and exercising, is a means in which humans interact with their bodies; and studying medicine is a way to make sense of the intricacies of this relationship. Ultimately, my research of the movement towards alternative medicine has made me curious about my own community. What do my friends, family and peers think about *naturalness* in medicine? Do they participate in the alternative medicine movement? The information I gather will tell me that my prolonged investigation of the alternative medicine movement might also be taking effect in my social circle. The questions that guide this study are as follows: (a) In the context of medicine, how is *naturalness* defined in popular US culture?, and (b) What are the general attitudes towards alternative medicine in the US? In the section below, I talk through my methods, initial findings, and broader discussions that draw parallels between theories about naturalness and health.

Preferences of Naturalness, An Exploratory Study

The Survey

On February 20th, 2015, I released a Google Forms survey with the intention of collecting as many individual opinions as I could in my social network. Conducting a survey with the primary means of its distribution being Facebook automatically narrows

my cohort to my Facebook friends. Surely, without Facebook I wouldn't have been so successful at gathering information so quickly; but with this as a reality, the questions I stated above cannot and will not demonstrate an accurate representation of the US. In fact, most of my respondents live within a ten-mile radius of Lewis & Clark College, are white females and have approximately the same level of undergraduate college education. However, disparities can be found in the extent of CAM use, attitudes towards conventional medicine, and personal definitions of naturalness.

Methodology

I created my survey using Google Forms, titling it: "What's 'Natural' About Alternative Medicine?" Using Facebook as the principle mode of distribution, I published the survey on my wall to be open to the public from 5:00pm on Friday, February 20th, 2015 until 5:00pm on Tuesday, February 24th, 2015. Additionally, I asked the professor of the "Medicine, Healing and Culture" course at Lewis & Clark College to forward my survey to her class. Within four days, I managed to gather 114 completed surveys.

The first page of my survey provided an introduction of myself and gave a straightforward description of my project, intentionally leaving out too much detail as to minimize biases. I also included that the responses will be anonymous and there would always be the choice to skip any question for any reason. 13 of the questions were statements placed on a 5-point scale that ranged from "Strongly Disagree" to "Strongly Agree," each with a text box for elaboration. Some of my ideas for the statements were derived from the General Social Survey (GSS), a US-based survey that gathers data about basic demographics, behaviors and attitudes of a wide array of subjects, specifically from questions on level of trust in science and technology (GSS 2015). Scattered throughout were a handful of multiple choice questions and one brief prompt that asked to "Describe your understanding of 'naturalness' in medicine;" leaving space to write as much or as little as desired. I requested demographic information nearing the end of the form (such as gender, ethnicity, age, level of education).

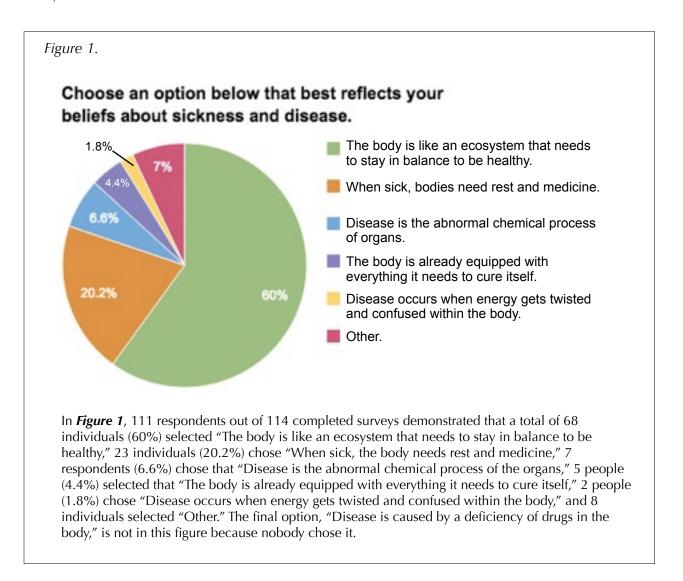
Initial Findings

My cohort of 114 individuals are from a total of 16 US states, where 65 respondents currently live in Portland, 22 in my hometown of Boulder, CO, and the remaining in states on the East and West coasts. 68% of the population are female and 32% male. Ages range from 18 to 74 years old, where 69% are between the ages of 18 to 25 years. My sample indicates that the majority are white (90%). In demonstrating their level of education, 40% selected "some college" (which encompasses those currently in an undergraduate program) and 37% had completed their bachelors degree.

65% of respondents either agree or strongly agree with the statement, "I prefer to buy natural products because they are healthier for me." One commenter added: "I assess by their ingredients, clinical trials, allergen info, and not whether the atoms within the product came directly from plants." Another commenter responded with the belief that natural ingredients are those that have "minimal chemical alterations or are synthetic." A third point of view is that *natural* doesn't mean anything, and is just a tactic marketers have to make the public believe they are being healthy. With the statement regarding the overall satisfaction with current medical care, 49% of respondents agree, and the remainder of individuals either are indifferent or strongly agree.

Out of seven different options that describe what sickness is in the body, more than half of total individuals believe that "The body is like an ecosystem that needs to stay in balance to be healthy." The next popular choice was "When sick, bodies need rest and medicine" (see *Figure 1*).

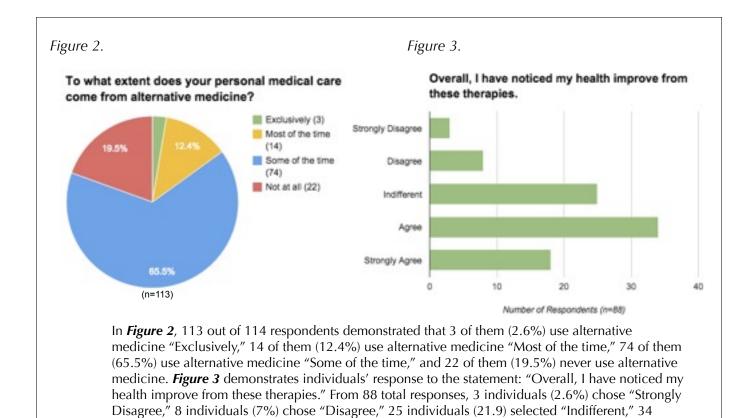
85% of respondents agreed or strongly agreed that science and technology has greatly benefitted human health and will continue to do so. Comments below this statement were as follows: "Medicine I believe will continue to interfere with our health in a way that in the future could be detrimental," and "Science and technology has definitely increased the human lifespan, but not necessarily quality of life." Another commenter added that, while science and technology has largely benefitted society, "the manufacturing and subsequent disposal of medicines may indirectly harm human health



(i.e. pollution via wastewater contamination with compounds that can't be broken down, etc.)."

A total of 80.5% of individuals use some form of alternative care, whereas 19.5% use none at all (see *Figure 2*). 42% of those who do use CAM visit an alternative practitioner once a year or less (as compared to 24% who have one visit or less per month, 3% who have one visit or less per week, and 1% "other"). Out of the 9 choices of alternative treatments, the most commonly selected was massage therapy at 57%. Following closely was chiropractic (47%), acupuncture (37%) and homeopathy (35%). Overall, these individuals stated different opinions of how effective they felt their

treatments have been. 45.6% either agree or strongly agree that they noticed an improvement in health, whereas 9.6% disagree, and the remaining are indifferent (see *Figure 3*).



One of my more weighted questions asked the respondent to describe their understanding of *naturalness* in medicine. With a total of 86 written responses, 15 people mentioned that *naturalness* in medicine means to have little or no manmade chemicals. 19 answers described the word "synthetic" as being a natural substance derived in a laboratory. 11 answers included that drugs are considered unnatural chemicals, though a handful of respondents agree that "alternative medicines still work with drugs (chemicals) just organic chemicals found in plants, instead of synthesized in a laboratory," as stated by a male Lewis & Clark student from Ashland, OR. Naturalness generated attraction from my respondents; though a large majority of them communicated that naturalness is not

individuals (29.8%) chose "Agree," and 18 individuals (15.8%) selected "Strongly Agree."

necessarily better. "Just because something is natural does not mean it is not harmful, and just because something is not natural does not mean that it is harmful," stated a recent college graduate from Seattle, WA.

Another distinction made between allopathic and alternative medicines was related to time and tradition. Four responses noted that alternative medicines are backed by "longstanding or ancient traditions as opposed to current cutting edge medical science." Additionally, alternative therapies are unique in that they are "using existing techniques," "medicine with a history," "authentic," and "derived from our knowledge of nature."

A significant topic that arose was relating to quality of care. The difference between conventional and alternative therapies, from the opinion of a Lewis & Clark student, is completely related to the naturalness entity: "Naturalness in medicine means that the medical practice acknowledges that I am not only a body with a disease but a person with hopes, dreams, desires, and the want to thrive and live a full life with meaning."

My Survey in a Broader Context

The statement: "I prefer to buy natural products because they are healthier for me," was meant to uncover personal assumptions about the functionality and morality of natural entities. A 2012 study by Li and Chapman differentiates functionality from morality by defining it as the instrumental effectiveness of a product, whereas morality is the ideational perception that naturalness is superior to human intervention because it just, well, "feels right." 65% of my survey-takers either agree or strongly agree that natural products are healthier, signifying that large portion of individuals think that natural options are *better*. Though, nearly half of the 30 total comments for this question suggest a skepticism towards the word "natural" on a label (many saying "organic" is superior), and some expressed that *natural* doesn't mean *healthy*.

In general, I found that my sample had a diverse understanding of what naturalness means in medicine. It was commonly expressed that some type of difference between natural and allopathic medicine is present, though a small percentage believed that all medicine is natural and the dichotomy is falsely constructed. Coded within most responses were explanations that agreed with the theories of vitalism and holism (which together, view the body as a mass of interconnected systems that function under the flow of the vital force (González-Crussi 2007)). Many responses hint that naturalness in medicine aims to restore the natural flow if energy within the body. A current Lewis & Clark student from Seattle wrote that natural treatments are "helping the body to accomplish something it normally could by itself," where a Lewis & Clark student from Santa Barbara added, "Natural practices use the body and manipulation of the body's energy to heal rather than using external sources to heal."

Conventional medicine, on the other hand, was talked about with relation to the theories of mechanism and reductionism (which, if you recall, encapsulates the concepts of deconstruction, simplification, mechanical explanation as applied to the body (González-Crussi 2007)). One respondent, a female in her late 20's from Ashville, NC, said, "There are a lot of things such as energy healing and homeopathy which I would never use because there is no known mechanism by which they could possibly work. They may be 'natural,' but that does not make them better."

The results of my survey conveyed a disparity in opinions about sickness and disease. One of the multiple choice questions asked respondents to choose one of seven statements that I intentionally crafted to side with certain philosophies about the body. The two most chosen options were "The body is like an ecosystem that needs to stay in balance to be healthy," and "When sick, the body needs rest and medicine." These statements signify one of the main differences between allopathic and alternative medical thought which contrast holism and reductionism. As a practicing acupuncturist at Oregon College of Oriental Medicine, Marx believes that alternative medicine encompasses:

... this idea of ecology, the way a natural ecosystem is in balance, all the components are necessary and each feeds back on itself for a healthy ecosystem to exist. I think at it's best, natural medicine should view the body in that way. Everything needs to be in balance, one thing effects the other, this kind of web of connections. If one thing is messed up then you're going to see ripple effects throughout the rest of the system.

As I discussed in the introduction of this article, holism is the theory that the parts of a whole are intimately intertwined so that they cannot be understood without reference to what they compose; in this sense, a holistic view of the body understands sickness and health as purely systematic processes. Reductionism, on the other hand, hinges on the philosophy that it is necessary to deconstruct the complex processes of the body to be able to treat the exact source of illness with the use of precise treatments and medication. Seeing sickness as a call to restore balance within the body, as echoed by holistic thought, was chosen by 60% of my sample. Only a third of that (20%) of the respondents believed that medicinal treatment is the best method against disease. This indicates another angle in which a movement away from conventional medical ideologies might be surfacing within the popular culture of the Western US. The other options of this specific multiple choice question, that were selected by the remaining 19% of my sample population (1% remains of those who did not choose an answer), demonstrated the more extreme versions of the two more popular statements. "Disease is caused by a deficiency of drugs in the body," and "Disease is the abnormal chemical process of organs," both lend themselves to the philosophies of reductionism, but also extract a confidence in the modern healthcare industry and science as a whole (the former statement, however received zero selections). "Disease occurs when energy gets twisted and confused within the body," and "The body is already equipped with everything it needs to cure itself," both lend themselves to ideologies of Traditional Chinese Medicine, Ayurveda and others.

Treatments in conventional medicine are widely understood by my survey takers to be invasive and impersonal, but incredibly effective when it comes to more severe conditions such as cancer and simply broken bones. There was no mention from my cohort that conventional medicine wasn't effective, but 8 individuals contended that it is effective to the extreme point of causing harm on the body. Opinions regarding CAM described it as less degrading to the body, but also less effective and unreliable to work.

A very common criticism to modern medicine is the rushed, impersonal exams that seem to have lowered in quality and duration over time. Marx's patients have expressed that they seek alternative care predominately because their practitioners spend a significantly longer time listening to the patient during the assessment. Marx described to me that there is a depth to the patient/provider relationship that conventional practitioners don't offer. Before he treats his patients with acupuncture, Marx allots nearly 30 minutes for a critical and holistic conversation about what, in every aspect of their lifestyle, might be causing the specific health complaints. This subscribes to a *holistic* view of the patient's body as it encompasses physical, emotional, and spiritual components of a person (Marx 2015).

"The best way that I could describe natural is something that is personal." —A 23 year-old college graduate and resident of Ashville, NC

Concluding this analysis of my exploratory survey gives me the chance to say that my results weren't as I anticipated. I originally believed that most individuals in my social reach would have similar opinions as me (I often seek out alternative therapies because I believe they work for me). What I realized was that, despite the fact that most of my cohort lived in Portland (a city considered very progressive in terms of alternative practices in general), there was a notable level of variety in the answers. This leads me to wonder what exactly drives somebody to be exposed to movements, paradigms, fads and the like.

My survey can speak to this. I asked my sample of 114 participants to indicate who in their social circle shares similar views as them about CAM. What I discovered was that 64% of my sample believed that their friends had congruent opinions as them, roughly 60% of their families, 31% of their partners, 8% of neighbors and 3% said "none of the above." If anything, this information demonstrates that choices made by an individual are influenced by the ideas and paradigms that exist within one's social group. Consequently, my own social group and my social reach (survey sample) both demonstrate that it is very possible to share varied, if not opposing, views with those who are closest as well as those who are just acquaintances.

Further Research

My survey proved successful in gathering valuable opinions about naturalness and alternative medicine. However, an enhanced methodology would be necessary to collect input from a more random and wider population within the United States. Capturing a sample that legitimately represents of the entire country would bring new dimensions to the discussion I pose regarding attitudes towards alternative medicine, use of alternative medicine and perceptions of naturalness in medicine. Drawing from the statistics of demographics who use CAM, it would be very interesting to compare communities that demonstrate a disparity in income and race. The question, "How do low-class, minority communities and high-class, white populations compare in their collective understanding of naturalness in medicine?," would better identify if cultural and socioeconomic factors cause people to perceive naturalness differently. Questions such as this have the potential to uncover interesting connections between cultural ideologies around naturalness and medicine. With such a homogenous cohort, the survey results I collected provide interesting points of discussion, but unfortunately limit the range of my analysis.

Healthcare Consumption as Activism

Alongside the realizations made by my small survey, respondents of a larger survey of CAM use in the US commented that a commitment to personal growth, feminism, and environmentalism all correlate with the alternative medicine movement (Coulter and Willis 2004). In their article, Coulter and Willis applied a sociological perspective on the increased utilization of CAM by placing significance on the postmodern thesis. Postmodernism, taking place in the late 20th-century, implies that "social change has accelerated, faith in the ability of science and technology to solve the problems of living have declined... Societal trends toward individualism seem to us to have influenced healthcare trends, with individuals being less prepared to accept traditional authority, such as doctors, and seeking greater levels of control and empowerment over their lives" (Coulter and Willis 2004). This individualist revolution (of returning power to the community and the person) deconstructs the politics of centralized healthcare; and Coulter and Willis believe that this coincides with other movements such as the feminist, gay and green movements. When peering at the CAM shift in conjunction with these other movements, we notice that changes in political, economic, environmental and social spheres have prompted activism for a more equal, just and healthier way to live in this

country. The development towards naturalness as a preference, and the deviation from technology and scientific thinking, has cultivated a consumer-as-activist campaign.

Melinda Goldner, in her 2004 article, "Consumption as Activism," states that consumers have been a large influence of the CAM grassroots movement. "Activists," she says, "are using various forms of CAM, telling their friends to use CAM, asking their physicians to be open to these techniques, and demanding insurance reimbursement." As we've seen earlier, institutional changes are beginning to take affect (with the establishment of the NCCIH and other efforts to legitimatize CAM), but Goldner believes that individuals are still the primary drivers for the increasing use of CAM in the US. As demonstrated in my survey, family and friends are an incredibly influential source of opinion and paradigms.

The Self-Determined Yogi

The alternative medicine movement is also attributed to a gravitation towards wellness as being the responsibility of the individual. "Seeking healthcare and being involved in healthcare significantly contributes to the processes of identity constitution in which we are engaged" (Tovey et al 2004). Fries (2008) argues that this new coming movement of self-determination, consumer choice and power in the governance of health, coincides with the neoliberal structure of free markets and consumer power that motivate the public to take it upon themselves to be healthy, functioning human beings within society. Fries (2008) broadens this discussion by saying:

The counter-hegemonic threat of alternative medicine has adapted alongside the evolving biopolitics of subjectivity, shifting discursive emphasis to issues of efficacy, safety, cost-effectiveness, and mechanism, while enrolling corporate sponsorship and placing the autonomous individual as the centerpiece for the governance of health.

The concept of choice, and the ability to decide different types of health options is, in itself, an indicator of who has accessibility to various health care types. This brings us

back to the topic of equity in healthcare and the unequal distribution of opportunity among class and race (as noted in my previous section). As so eloquently commented by a former Lewis & Clark graduate: "The belief [that human intervention can only do bad] is also part and parcel of the larger elitist pantheon of new-yuppie beliefs that shames the people (often poor, often people at the whims of broken capitalism) that only want relief from symptoms— as if poor people somehow don't want to also see 'holistically'!" This comment speaks to the false notion that only those who seek out alternative medicine are only those who want it or believe in it. It alludes to a significant issue with alternative medicine— the disparity between those who have access to alternative medicine and those who don't.

Medical Integration across the Nation

"This vision of integrative medicine shares a series of cultural synergies with neoliberal governance of health." —Christopher Fries, Governing the Health of the Hybrid Self (2008)

The way in which alternative medicine is perceived by the public and the current trajectory it holds hinges on the consumers' analysis of what they know works best for them. The movement away from conventional medicine is a symptom of the US citizens increasing distrust acquiring power to pick and choose their modes of healthcare. The duality between allopathic and alternative medicine does not exist. Instead, an integration of both disciplines is developing, as alternative forms of medicine are going through the necessary steps to become accepted by the unbudging institution of science. *Nature* comes into play because it acts as a grounding entity (of a non-manipulated, pure, essence) that sides the alternative medicine movement with other green, environmental activists who are motivated by their dissatisfaction of the current situation. As of now, the strongest propagators are the individuals who seek out alternative care because of their level of accessibility and exposure to these new methods of healing (Goldner 2004). It is likely then, if accessibility and exposure to the idea of alternative medicine expands to all individuals in the nation, a great increase in the use of acupuncture, naturopathy,

herbalism (and so on) would be inevitable. Peering through this movement from the medical institutions themselves, a higher demand for alternative care would increase the necessity for clinical trials. Already, "within a very short period of time, medicine has moved from outright hostility to CAM to acknowledging its existence and finally co-operating with, and embracing, CAM," (Coulter 2004). Integrative medicine has, with the growing demand, surfaced within conventional institutions where hospitals and clinics have separate wings devoted to alternative therapies. Some biomedical doctors and nurses have also demonstrated their support for CAM by being trained in their practices— the most popular being acupuncture (Tovey *et al.* 2004).

Bradley and Marx both agree that CAM should continue to become a part of allopathic institutions. Marx declared that he's most excited about integrating what he knows "with physical therapists and MDs occupational therapists, nurse practitioners. Working closely with all of these different view points to figure out what's best for that individual patient." As another member of clinical research natural medicine, Zwickey held a different opinion. She remarked that CAM cannot be integrated into institutions of conventional medicine because she believes: "philosophically, they are very different. Their philosophies counter each other. The philosophy of conventional medicine is to medicate the symptom and in natural medicine, they may make symptoms worse in order to treat the cause." From a strictly conventional viewpoint, Kassirer expressed hope that "eventually all alternative medicine therapies are assessed for their efficacy and risks. And once that happens, it will join the rational approach to treatment."

Closing Remarks

Alternative medicine within the United States has been my way of examining the broader conceptions of naturalness in medicine. Ruling paradigms that value science and devalue traditional practices have, evidently, been evolving as culture and society shift alongside the political and economic dynamics throughout this country's history. Alternative medicines in other nations, especially those in the Global South, are met with a much different dynamic given that their alternative medicine is allopathic medicine

(Bodeker and Burford 2007). In the Global North, where a diverse wealth of medical care is available, movements to diversify the modes of healing has undertaken the historically hegemonic system of biomedical care. Conventional paradigms of the body, the methods in which we legitimize treatment, and the power entrusted in science are beginning to loose dominance within US society.

It would be false to assume that the US public is suddenly romanticizing nature and repelling the idea of science; although something about traditional, unregulated, even "holistic" therapies are catching the public's attention. Li and Chapman (2008) argue that this is because people aren't necessarily attracted to entities that are actually less processed (etc.), but it's the *idea* of the entity being natural that people find most appealing. What is it about *naturalness* that is causing a movement?

I turned to my respondents— a sample of mainly white, college undergraduate Portlanders— to ask about their perceptions of alternative therapies and how they would define naturalness in the context of medicine. Collectively, they define naturalness as a something that does not use technology, is unprocessed and un-manipulated by humans. Interestingly enough, many of my responses defined naturalness as what it is not rather than what it is— perhaps because they found that pinpointing its exact definition is difficult to do. Many skeptical respondents made the argument that the CAM movement isn't about nature at all because *everything* should be considered natural.

Surveyors also defined naturalness in medicine as a more personal, individualized type of experience, which can be connected to larger theories of self-determination and the independent quest for a better way to care for our bodies. From the standpoint of the consumer, we can pinpoint the causes of a new individual agency to discover the best way to heal; where choice in therapies provides the patient with a sense of empowerment. One of the most fundamental ways to explore one's own body is by caring for it; and while allopathic medicine has proven it cures time and again, choosing to consume alternative medicine is just another, quite different, way to do so.

Altogether, my respondents expressed that, in whatever form, naturalness is inherently good. In its many interpretations, naturalness cultivates attention and inspires action. Most CAM patients don't regard themselves as participating in activism because they seek out unconventional methods of healing (Goldner 2002); although Coulter and Willis (2004) state that the CAM movement is congruent with other environmental and social activism, whose participants demonstrate their protest towards unethical and unsustainable aspects of the healthcare system. This, too, resonates within consumer capitalism, wherein corporations have quickly catered to the growing demand for natural products solely by selling the word "natural" on a label. Whether or not the product is truly so, the value of naturalness is washed away, leaving with us with the question: *is this the nature we actually want*?

Whether it means that their medicine comes directly from the Earth, or that their doctor spends more time listening to their whole story, naturalness is associated with goodness, purity and progressiveness. Ingrained within our culture, these notions act as a moral compass, governing how we assess what's right for our bodies, and in turn, the therapies and treatment we choose to use. Movements towards alternative medicines are just a symptom of a gradually growing demand for better care.

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