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Going Mainstream or Just a Passing Fad? The Future of the Ancestral Health Movement

Abstract

The current ancestral health ("paleo") movement is often thought to be on the verge of going mainstream. Many within the movement believe this would lead to positive health and financial outcomes for both individuals and society as a whole. However, the transition from a small, highly-devoted group of adherents to a mass following will be far more difficult than commonly assumed. This paper argues there are three main obstacles to it becoming a mass phenomenon in the United States. First, Neolithic foods are tightly woven into the fabric of our culture (for example, bread within the Christian tradition). Second, refined carbohydrates, which make up a large portion of the typical Western diet, are physiologically addictive. Third, we see a cross-generational sense of entitlement, which commonly privileges transitory "fun" over true mental and physical "flourishing" (*eudemonia*). This paper also identifies the two types of individuals that typically go paleo: those who are sick (and for whom conventional medicine has failed) and those who are seeking performance. The key commonality between both groups is a very high level of intrinsic motivation, which also suggests limited penetration of the ancestral health movement in the future.

Keywords

Evolution, Paleo Diet, Paleolithic Diet, Ancestral Health

INTRODUCTION

The current ancestral health ("paleo") movement is often thought to be on the verge of going mainstream. Many within the movement believe this would lead to positive health and financial outcomes for both individuals and society as a whole. However, the transition from a small, highly-devoted group of adherents to a mass following will be far more difficult than commonly assumed. The central argument of this article is that the paleo movement will continue to grow modestly in the United States, but, due to a number of significant obstacles, will not break through to the mainstream. Instead, it will remain a fringe movement, with a small but highly dedicated group of followers. In other words, rather than just a passing fad, it will stabilize as a niche subculture, similar to veganism or bikram yoga. In order to build this argument, this paper will proceed in three sections. Part one discusses the types of people who typically go paleo, and why they do so. The second section identifies the three main obstacles to the ancestral health movement going mainstream: cultural, physiological, and social. The third part then presents some of the common counterarguments against these positions.

SECTION ONE: WHO GOES PALEO AND WHY? "A SPECIAL KIND OF PERSON"

Many different kinds of people adopt an ancestral health lifestyle, but two stand out. First, there are those who are sick or unhealthy, and for whom conventional medicine has failed. This is the most important motivation, and represents the majority of individuals in the paleo movement. Second, there are those people who are seeking performance, usually physical or mental performance. These people are attracted to the ancestral health movement because they are "optimizers." They are trying to find the best way to do things: the best way to eat, the best way to work out, and the best way to optimize their overall health and performance. In addition to anecdotal evidence, there is empirical evidence to back this up.

In a large online survey of the ancestral health community from 2013, approximately one fifth (21%) of respondents were motivated to follow a paleo lifestyle in order to "recover[y] from illness."[1] Many of these illnesses include autoimmune diseases, digestive difficulties, and skin problems, all of which conventional medicine can find difficult to address. In addition, almost one third (32%) of participants said "weight loss" was the main reason for going paleo.[1] It is possible that some of these responses simply represent a vain desire to look better, or to live up to certain unrealistic body image norms. However, there is another, and perhaps more accurate, way to understand these responses. As an unhealthy deviation from an individual's optimal healthful state, being substantially overweight can be understood as a form of illness. And it is a form of illness that

the standard medical advice about diet and exercise have failed to adequately treat. If obesity and unwanted weight gain are seen in this way as a kind of illness, then the total percentage of respondents who are motivated by a desire to recover from illness more than doubles to 53%, making it by far the most important reason for choosing a paleo lifestyle. From this perspective, a majority of participants "go paleo" in order to address some kind of broadly-defined health concern, which conventional approaches to health and medicine have difficulty addressing. After that, the next most popular response was "live more naturally," at 16%.[1] Then the "improvement of athletic performance" and the "improvement of mental performance" combine for a total of 12% of the responses.[1] In other words, recovering from illness and improving performance also stand out as some of the most important reason for switching to a paleo lifestyle.

Focusing on those two main groups – those who are sick and those who are seeking performance – the key point here is that they share an important commonality: a high level of motivation, or, more specifically, a high level of "intrinsic" motivation. In other words, both groups are highly self-motivated. These individuals are highly motivated to get healthy, or to improve their performance, or some combination of the two. In fact, it could be argued that it takes a "special kind of person" to transition from the Standard American Diet (SAD) to an ancestral health lifestyle because it often requires a significant amount of effort to make and to maintain the switch. More specifically, this "special kind of person" might be described as someone who is self-directed, willing to challenge authority and the conventional wisdom, and who has access to education and resources, which allows him or her to explore alternative health paradigms. However, these individuals may very well represent the exception, rather than the norm, in our society today. Again, there is evidence from the same survey to support this idea.

In terms of education, 75% of paleo respondents hold a Bachelor's degree or higher[1], which is 2.5 times higher than the national average at 30%.[2] The number of individuals holding doctorates (PhDs) is also more than four times the national average: 4% compared to less than 1%.[1] The story is similar when it comes to income: 44% of respondents have a household income of \$100,000 or more, which is more than two and a half times the national average.[3] So compared to the population as a whole, those individuals in the ancestral health movement appear to be better educated and much more affluent. It is also well known that Socio-Economic-Status (SES) is tied to race. In fact, the survey found that 91% of respondents were white, while the national average is only 72% white and shrinking.[4] Thus, at a time of growing racial diversity in this country, with Asian American, African American, and Hispanic populations all increasing, the ancestral health movement is overwhelmingly white. This, by itself, does not bode well for the future of the paleo movement. If these more privileged early adopters continue to have success following a paleo lifestyle, then perhaps other groups will follow their lead. In other words, these relatively prestigious and influential sectors of society could be aspirationally imitated by others. Celebrity endorsements – either directly or indirectly – could play an especially important role here as well. However, this kind of "trickle down" of the ancestral movement has yet to be seen. Moreover, other similar "elite" health movements, such as veganism and yoga, have not seen this kind of widespread penetration into less privileged or non-white groups either. In the end, it is likely that the paleo movement's overwhelming "whiteness" and its privileged status will be more of a liability than an asset to its widespread adoption, especially in today's highly polarized social and political climate.

SECTION TWO:

THREE MAIN OBSTACLES: CULTURAL, PHYSIOLOGICAL, AND SOCIAL

Adopting and maintaining an ancestral lifestyle can be challenging on an individual level, but the movement itself also faces three broader obstacles going forward. The first obstacle is "cultural," namely that Neolithic foods are tightly woven into the fabric of our society. They are so tightly woven, in fact, that it is no exaggeration to say that human civilization was literally built on Neolithic foods. This was no accident.

More than anything else, grains, legumes, and dairy allowed for early populations to expand, and have sustained increasingly larger populations over the past 10,000 of years. In other words, it was the invention of agriculture, and the consumption of Neolithic foods, that actually permitted for the development of civilization, including such things as the division labor, the accumulation of wealth, greater social hierarchy, and new forms of technology. It is no exaggeration to say that human civilization was literally founded on, and continues to be based on, Neolithic foods. The key point here is that because of this important and undeniable link, it will be extremely difficult to remove grains, legumes, and dairy from our daily lives. A few examples help illustrate this point.

Cereal grains play an important role in many traditional religions. For instance, there is the importance of bread within Christianity. The Lord's Prayer explicitly says, "Give us this day our daily bread." And, of course, bread is absolutely central in the Christian Sacrament of Communion when the priest takes bread and wine and turns it into the body and blood of Christ. In this context, giving up bread and grains might make little sense to a devout Christian. Likewise, there is the importance of matzo in the Jewish holiday of Passover. Grains also play an important role in many other cultural traditions around the world. Here the importance of rice in Asia and corn in Latin America come to mind. In addition, Neolithic foods are deeply woven into many everyday rituals and practices. For example, it is hard to imagine a wedding without a wedding cake, or a baseball game without the hotdog. And how could Americans live without mom's apple pie? There is also the problem of processed American Cheese. Many people in the United States would see its potential elimination as simply unpatriotic and un-American.

While obviously there are grain-free, dairy-free, and legume-free substitutes for many of the examples above, the point here is to highlight the deep cultural and emotional significance of these foods. After thousands of years of development, Neolithic foods are now deeply woven into the fabric of our culture, thus any elimination of them is going to be difficult. Cold, rational arguments about "nutrient density," "lowering inflammation," and "improving gut microbiota" have little chance of succeeding in the face of such longstanding religious and cultural traditions.

Of course, there is also the issue of sweetened beverages, vegetable oils, and other processed foods. These industrial food products were developed in the late nineteenth and twentieth centuries, and make up a large portion of the Standard American Diet. Even though these food are more recent additions, they are still woven into the fabric of everyday life. Sodas, energy drinks, and fast food are especially a part of contemporary American popular culture. One example is the Red Bull TV channel, and Red Bull's sponsorship of the much-watched 2012 record parachute jump from the edges of outer space. Then there is the recent 2015 end-of-season college football Chick-fil-A Peach Bowl. Monster energy drink also sponsors large motorsports events and individual athletes competing in the sports of cycling, skating, skiing, snowboarding, and surfing. McDonald's continues to find success with its children-friendly Happy Meals. Finally, many people look forward each year to Coca-Cola's very popular holiday advertisements, which originally date back to the 1930s. Even though some of these industrial food products are only a few decades old, they nevertheless define a significant part of the American cultural identity, and are unlikely to be eliminated - or even marginalized – anytime soon.

The second main obstacle facing the ancestral health movement is physiological. The main argument here is that Neolithic and industrially-processed foods – and simple carbohydrates in particular – appear to be addictive. As a result, giving up grains, legumes, and dairy represents a real physical or physiological challenge. There is specific research evidence to suggest just how addictive some foods can be.

For example, a study from 2006 shows that the main reward and pleasure center of the brain lights up more intensely for foods like chocolate cake and pizza than for blander foods like vegetables.[5] Another study from 2007 shows that rodents will become quickly addicted to sugar, often choosing it over cocaine, and

there is the suggestion that a similar thing can happen in humans.[6] A more recent study from 2013 shows how high-glycemic foods caused subjects to report more hunger, and to consume more food in the postprandial period. In other words, eating high-glycemic food appears to make individuals want to eat even more food later on. This study also showed that high-glycemic foods produced greater activation in parts of the brain that regulate cravings, reward, and addictive behaviors.[7] In addition, there are two other studies that show wheat and dairy can activate opioid receptors in the bodies, and thus possibly cause foods addictions.[8,9]

Neolithic and industrially-processed foods appear to be so potentially addictive because of three interrelated reasons. First, they taste good to most people. Just think of the way fresh-baked chocolate-chip cookies smell and taste. Whether we like it or not, sweets are highly appealing, and we often crave them. These cravings sometimes lead individuals to eat for reasons other than hunger, which can result in all kind of problems, such as obesity, diabetes, and eating disorders. Because they taste so good, simple carbohydrates and sugary food are simply hard to compete with. For example, the Google Trend line for the search term "paleo diet" has surged over the decade; but, that pales in comparison to searches for "cupcakes" (See Figure 1).

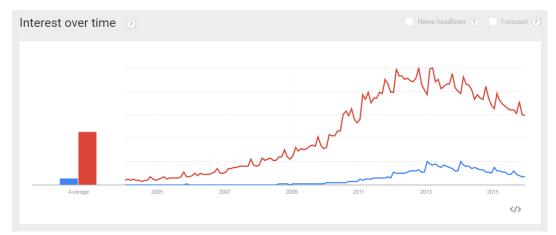


Figure 1: Searches for "paleo diet" in blue and "cupcakes" in red[10]

Second, some individuals can also become addicted to Neolithic and processed foods because they play into a real evolutionary need. Specifically, in the scarce environment of our ancestral past, having a preference for highly sweet and fatty foods had real survival and reproductive advantages. Optimal forging theory also states that an organism will seek food in a way that gains the most benefit (energy) for the lowest cost in terms of effort and time. But, unfortunately, those same preferences, which were a benefit for thousands of years, now lead to problems in our current food environment of overabundance.[11] Overconsumption, food addiction, and unbalanced diets are the result.

Third, food manufacturers today know all about these "pre-programmed" preferences, and do everything thing they can to exploit them. In other words, the food game is currently "fixed" against us. Multinational corporations literally spend billions of dollars to make foods hyper-palatable, and to keep us coming back for more. For example, in Michael Moss's 2013 book, *Salt Sugar Fat: How the Food Giants Hooked Us*, he demonstrates how corporations such as Kraft, Nabisco, and General Mills use the latest technology to calculate the "bliss point" of sugary beverages, and to enhance the "mouthfeel" of fat by manipulating its chemical structure.[12] The combination of sweetness and fat can be particularly seductive. The result is a desire to eat more and more. Once again, the main argument here is that many Neolithic and industrially-processed foods appear to be physiologically addictive, and some have even been designed to be hyper palatable. As a result, it is going to take a great deal of effort to remove them from our daily lives and to begin eating whole, natural foods once again.

In terms of the paleo movement going mainstream, the addictive nature of these foods is even more problematic because the typical American diet consists of 70% Neolithic or industrial foods, which include: cereals, dairy products, refined sugars, refined vegetable oils, and alcohol. This is a key point. When people are encouraged to switch to a paleo diet, they are really being asked to change or give up almost three quarters of their current diet, and the very three quarters that is potentially the most addictive. Such a large dietary change for so many people seems unlikely.

The third main obstacle facing the ancestral health movement relates to societal values. Specifically, today we see a general sense of entitlement, which commonly privileges transitory "fun" over true mental and physical "flourishing," or what the ancient Greeks called *eudemonia*. This sense of entitlement and desire to have fun manifests itself in several ways.

First, there is the "I deserve it" syndrome. This is when a friend, co-worker, family member, or perhaps even we ourselves say: "I deserve that cookie." Or, "I deserve that new car," even though we cannot afford it. Likewise, we simply do not like being told that we cannot eat certain foods, especially when those foods have high emotional or cultural significance. In addition, when it comes to food choices, we have also been told again and again: "everything in moderation." But this approach is simply not compatible with the ancestral health model: some foods are better than others, and other foods are to be avoided altogether. Next, there is the issue of instant gratification. We all want things, and we want them now. We want to see the results now; we don't want to wait. This is feeling is quite understandable, given we live in a world of instant communication, fast food, and

video on demand. Finally, individuals – and society as a whole – value personal happiness as the primary goal in life. When asked what they want most, many people respond by saying: "I want to be happy."

There is nothing necessarily wrong with this response, nor should it be surprising. Society tells us all the time to just "be happy!" There is even a whole sub-field of Psychology called "Positive Psychology" that is devoted to making us happier.[13] Not only that, but the idea of happiness is actually woven into our American Creed. Americans are told from birth to pursue: "Life, Liberty, and Happiness." The result of all of this is a kind of cult of personal happiness, which shapes all aspects of our lives, from morality and personal relationships to the daily food choices that we make. In fact, a 2013 *New York Times* article, entitled "The Gospel According to 'Me," makes exactly this point. The two authors argue:

Traditional forms of morality that required extensive social cooperation in relation to a hard reality defined by scarcity have largely collapsed and been replaced with this New Age therapeutic culture of well-being that does not require obedience or even faith — and certainly not feelings of guilt.[14]

In other words, the desire for personal wellbeing and happiness has come to dominate our current value system. The two authors conclude that "personal wellbeing has become the primary goal of human life."[14]

Of course, "being happy" is not the only possible goal in life. There are many alternatives. Other societies at different places and at different times have prioritized a number of other values, including: social justice, artistic creation, the reduction of suffering, athletic performance, the production of knowledge, sexual ecstasy, and *eudemonia*, which, again, is best translated as kind of holistic mental and physical flourishing. In many ways, that final goal appears to be closest to the true objective of the ancestral health movement.

But, again, many people today are far more interested in just having fun, and, frankly, in escapism. As a result, they are not willing – or perhaps motivated enough – to invest the time, energy, and resources into living a paleo lifestyle. This is not limited to one demographic group; rather, it is a cross-generational issue. The feeling of entitlement and a desire to just have fun can be found among Millennials, GenXers, and Baby Boomers. The actual forms of superficial gratification and individualistic consumerism vary from time to time, and from generation to generation, but they often include the following: movies, television, videos games and the web, pulp fiction, professional sports, and various forms of self-medication, including drugs and alcohol. While most of these activities are usually seen as entirely legitimate and "normal," they often distract from the truly important issues facing both the individual and society as a whole. As a result, these different forms of narcissism and self-absorption often distract us from taking better care of ourselves and of those around us. In other words, they often fail to promote true physical and mental flourishing.

These various form of escapism also lead, in part, to what the cultural critic, Daniel Mendelsohn, has called "the reality problem." In his 2012 book, *Waiting for the Barbarians*, Mendelsohn argues that new technologies and media "allow us to be private in public," and have caused a "profound alteration in our sense of what is truth and what is fiction."[15] In other words, we live in an era in which it is possible to permanently escape into a kind of personal reality, separate for any common reality, or separate from any kind of "Truth." He calls this "the preeminent cultural event of our day."[15] This inability to separate truth from fiction, and the related ability to live within our own personal reality, represents another real obstacle for the ancestral health movement going forward.

Yet, there is another kind of "reality problem" facing the ancestral health movement. And, again, it relates to societal values. The paleo movement is once again out of step with the mainstream because of its emphasis on scientific reason and evidence-based arguments. Whether we like it or not, faith and emotion often hold sway over reason and logic. In addition, there is a strong current of "antiintellectualism" and "pseudoskepticism" in our society today. This can be seen most clearly when it comes to the issue of climate change, but also when it comes to the Theory of Evolution. In the 2013 survey of the ancestral health community, 58% of respondents believe in Evolution by natural selection without any influence from God.[1] This number dwarfs the national average. In the most recent national poll, 46% of Americans believe God created humans in their present form, 32% believe humans evolved, but God guided the process, and only 15% of Americans believe in straight Evolution by natural selection without any influence from God.[16] In other words, the belief in Evolution within the ancestral health movement is almost four times greater than in the general population. This, by itself, represents another significant obstacle, and points to an obvious question: How is the ancestral health movement going to convert the majority of the population when most Americans do not believe in the fundamental premise (Evolution) upon which the movement is based? The answer to this question remains unclear.

Perhaps many within the current paleo movement also fail to appreciate how truly revolutionary it is. The ancestral health movement is doing no less than attempting to overturn the conventional wisdom when it comes to exercise, diet, and the practice of medicine. Likewise, the individual choices – such as removing Neolithic foods and industrial foods, walking everywhere, turning off the computer, and going to bed shortly after it gets dark out – seem small, but could have a profound effect on Western societies. When taken as a whole, the ancestral health lifestyle radically alters the way we live, work, eat, and socialize. If all of society

were to adopt these practices, it would have tremendous political and economic implications. Some within the movement have already recognized this. In the online discussions leading up to the 2013 PaleoFX conference in Austin, TX, Andrew Badenoch described the revolutionary potential of the movement:

Agriculture – particularly grains – and the state are, and always have been, mutually-dependent and mutually-reinforcing. Disengaging from the system of industrial agriculture and branded or otherwise 'value-added' food products is a fundamentally revolutionary act that erodes GDP and the tax base in turn.

In other words, dismantling industrial-grain-based agriculture, as many within the paleo movement would like to do, means nothing less than dismantling the modern state. The author and blogger, Mark Sisson, has also highlighted the profoundly negative impact the movement could have on our current economic system. In a 2012 online interview with Dr. Andreas Eenfeldt, he said, "If we were to magically convert the entire world to paleo... that would tank the economy."[17] It would tank the economy because, according to Sisson, 30% less food would be needed to feed everyone, and health costs would dramatically drop, leaving a huge gap in our GDP. This projection might an exaggeration, as the industrial food system only represents 5% of total GDP and even health care costs only total 17% of GDP.[18, 19] A decline in both of these sectors could probably be offset by an increase in consumption in other areas of the American economy. Nevertheless, the social and economic challenges of such a mass adoption of a paleo lifestyle would still be substantial. Overcoming these challenges would take significant planning and effort. No one today within the ancestral health movement – nor outside of it, for that matter – is currently equipped to address these changes.

So far this section has highlighted the three main obstacles (cultural, physiological, and social) facing the ancestral health movement as it moves forward. However, there are three additional obstacles that must be grappled with as well. First, large vested interests, such as agribusiness, Monsanto and Cargill, the conventional beef industry, and the USDA, need to be overcome in order to change the status quo. If the paleo movement continues to grow, the food industry and these other vested interests are likely to push back in order to maintain their market position. They can strike back with corporate pseudo-science, lobbying power, and public relations campaigns. The food industry is also likely to try to coopt certain aspects of the ancestral health movement by offering "paleo-lite" products, such as pre-packaged and mass-produced "paleo" snacks and desserts. Second, professional organizations, including the American Medical Association and the American Dietetic Association, also need to be convinced of the effectiveness of an evolutionary approach to health and wellness.

wield significant power both in the medical community and in Washington. They also have their own lobbying groups, and are likely to put up a fight. Third, there is the relatively high price and inconvenience of going paleo at this time. It is true that highly-processed, carbohydrate-based foods are very expensive relative to their overall nutrient content. However, fresh, organic fruits and vegetables, pasturedraised meats, and wild-caught fish are not at all cheap when compared to such industrially-produced foods, and often take more time and effort to prepare. Of course, if the paleo movement continues to spread, prices are likely to fall and it will become more convenient, as more options become available and as restaurants offer more paleo-friendly items on their menus. But, at the moment, and into the foreseeable future, there are real costs associated with living a paleo lifestyle in terms of time, money, and effort. These final three issues, which often get a lot of attention in the paleo blogosphere, are significant and important, and need to be adequately addressed as well. But they not nearly as significant and important as the broader cultural, physiological, and social obstacles detailed at length above.

SECTION THREE: COMMON COUNTERARGUMENTS

Sections One and Two above addressed who goes paleo and why, and the main obstacles to paleo going mainstream. Here in section three, two common counterarguments are presented and refuted. The first counterargument can be summarized by the phrase: "This time is different!" No one would dispute the notion that health and fitness movements come and go. In fact, approximately one hundred years ago the United States and Europe saw the development of something very similar to the current paleo movement called the Physical Culture movement, which, of course, faded away by the 1930s.[20] But, many today within the ancestral health movement believe that this time is different. The difference, they claim, has to do with technology.

The argument typically goes something like this: for the first time in human history, the internet and social media potentially provide everyone access to the paleo message. In other words, platforms such as Facebook, Tumblr, and Twitter create the ability to connect with – and to change – the world. Perhaps this is true; but, the internet is only a tool. A powerful tool for education, but a tool nevertheless. When it comes to changing behavior, education is usually not enough. Learning new information does not automatically lead to behavior change. In other words, education is not the same thing as motivation, and eventual behavior change that comes along with that.

For example, since 1965 cigarettes have carried warning labels, and there have been massive public health campaigns to inform the public about the dangers of smoking. Moreover, around the world some of these warnings have been quite

graphic, including images of sick fetuses and diseased lungs. Yet, despite having the education, and consciously knowing that it is bad, many people continue to choose to smoke. Again, education is not only factor involved here. In fact, behavior change is the product of a much more complicated equation:

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education + motivation + ability + the proper triggers = behavior change
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In other words, simply spreading the ancestral health message through different forms of digital media does not guarantee its acceptance or adoption. Motivation - along with ability and the proper triggers - is necessary as well, which recalls the importance of a high level of intrinsic motivation in the individuals who switch to and maintain a paleo lifestyle discussed above in Section One.

The second common counterargument has to do with the idea of a "tipping point." Many within the paleo movement today point to its recent rapid growth and conclude that a tipping point must be close at hand. In this theoretical model, a tipping point occurs when a movement, or product, or idea reaches a certain critical mass and then rapidly spills over into the mainstream. However, it appears as though the ancestral health movement is actually a long way from any such point. The theoretical Law of Diffusion of Innovation, from which the idea of a tipping point is taken, helps to explain exactly what is going on here.[21]

The Law of Diffusion of Innovation divides the adoption process into five phases or groups: innovators, early adopters, early majority, late majority, and laggards. Those groups are then plotted onto a graph (See Figure 2). The crucial step in the spread of any idea or product occurs between the "early adopters" phase and the "early majority" phase, around 15-18% of the population. This is the crucial "tipping point" where something moves from the margins of society to the mainstream. So where exactly is ancestral health movement on that graph?

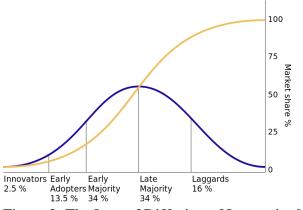


Figure 2: The Law of Diffusion of Innovation[22]

It is estimated that the current number of paleo adherents is between one and three million people in the United States.[1] Of course, that is a relatively large number; but, represents less than one percent of the national population of 320 million people. In fact, at less than one percent of the American population, the movement may still be in the first "innovator" phase, not yet reaching into the second "early adopters" phase. It is also important to note that these "innovators" tend to be the "special kind of person" described above in Section One. They are often individuals who are highly motivated, self-directed, willing to challenge authority, and who have access to education and resources. Furthermore, it may be that the popularity of the ancestral health movement has already peaked. Returning to Figure 1 above, it appears as though internet search activity for the paleo diet peaked in January 2013, and then again one year later. Since that time, interest has significantly declined, down 59% in December 2015 from the high in January 2014. In other words, paleo's moment in the sun may have passed already.

But, again, exactly how far away is the theoretical tipping point? And how likely is the paleo movement to get there? Theoretically, approximately 46 million Americans would need to switch to an ancestral health lifestyle in order for the movement to be close to such a point (15-18% of the population). According to the Law of Diffusion of Innovation, only then would it be on the verge of becoming mainstream. Given that only 14% of Americans believe in Evolution by natural selection (see Section Two above), reaching any such tipping point in the near future appears quite doubtful. It is also interesting to note that this doubtfulness may be more widespread than it first appears. When questioned about the future, many within the paleo movement reported being quite skeptical. In fact, two thirds (68%) of respondents to the online survey said that the majority of their country's population will "never" live a paleo lifestyle.[1] So it appears that a significant percentage of the ancestral health movement, perhaps best labeled the "silent majority," is not terribly optimistic either.

CONCLUSION

The current ancestral health movement is often thought to be on the verge of going mainstream, with many believing this will lead to positive health and financial outcomes for both individuals and society as a whole. However, the transition from a relatively small, highly-devoted group of adherents to a mass following will be far more difficult than commonly assumed. This paper has argued there are three main obstacles to the paleo movement becoming a mass phenomenon in the United States. First, Neolithic foods are tightly woven into the fabric of our culture. Second, simple carbohydrates, which make up a large portion of the typical Western diet, are physiologically addictive. Third, we see a cross-generational sense of entitlement, which commonly privileges superficial gratification and

individualistic consumerism over true mental and physical "flourishing" (*eudemonia*).

This paper also identified the two types of individuals that typically go paleo: those who are sick or unhealthy (and for whom conventional medicine has failed) and those who are seeking performance. The key commonality between both groups is a very high level of intrinsic motivation, which also suggests limited penetration of the ancestral health movement in the future. Thus the central argument here is that the ancestral health movement will continue to grow modestly, but will not break through to the mainstream, as the obstacles before it are too great. In other words, it will remain a marginal, niche food and lifestyle subculture.

As for broader influences on society, those will be limited as well. Despite the few high-profile paleo celebrities, the ancestral health movement will not have a large impact on American health or culture. The movement is already widely disparaged in the mainstream media, with its adherents often dismissed as young, vain men who eat a lot of raw red meat, even though this characterization is false.[1] We have also seen resistance and criticism from within academia and the medical community, even from those individuals who might reasonably be expected to support the paleo movement. For example, one of the original founders of the idea of Darwinian medicine, and the current Director of the Center for Evolution and Medicine at Arizona State University, Randolph Nesse, has been openly critical of applying evolutionary principles to the current practice of medicine.[23] Daniel Lieberman, the head of the Department of Human Evolutionary Biology at Harvard University, and the author of The Story of the Human Body: Evolution, Health, and Disease, has also been publicly dismissive of followers of a paleo lifestyle.[24] Finally, Melvin Konner, Professor of Anthropology and of Neuroscience and Behavioral Biology at Emory University, and co-author of the original 1985 paper that in many ways gave birth to the modern idea of "Paleolithic" diet[25], has even expressed reservations about the current ancestral health movement.[26] When such natural allies express skepticism and doubt, the path forward becomes even more challenging.

Along the same lines, the paleo movement will not have a dramatic effect on the current health care system. Some people will get better because of paleo; but, it will have limited influence on treatments, research, and the system of insurance. Rather, mainstream medicine will slowly catch up with – and continue to confirm – most of what the ancestral health movement already knows and preaches. In other words, change will come. But, it will come at its own pace, and it will not be directly influenced by the paleo movement. We can clearly see this happening already. For years the ancestral health movement has emphasized the importance of saturated fats, circadian rhythms (meal timing, sleep, light exposure, temperature, etc.), and the gut microbiota for optimizing human health and wellbeing. Only more recently has the medical established turned its attention to these areas and "discovered" that saturated fats do not cause heart disease, that blue light can be detrimental to sleep quality and duration, and that antibiotics and caesarean sections have significant negative effects on both the digestive and immune systems. This dual trend of (1) catching up and (2) confirmation is likely to continue into the future.

Of course, all these arguments are not intended to stand as a kind of "final judgment." Instead, the purpose of this paper has been to question where the ancestral health movement currently is, and to analyze what lies ahead. Many within the movement simply assume that paleo will continue to grow and expand. But that growth cannot be taken for granted. Nothing is destined to occur. As we are often warned in a different context: "Past performance is no guarantee of future results." Rather than simply making assumptions about the future, the goal should be to identify the most significant challenges that lie ahead. Only then can the most effective strategies be developed to overcome those challenges. This article has been an effort to start that process.

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