Consuming and Consumed:

A Critical Analysis of the Documentary "Fed Up"

By
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I hereby recognize and pledge to fulfill my responsibilities as defined in the Honor Code and to maintain the integrity of both myself and the College community as a whole.

Kathryn J Brash

Pledge

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Abstract: This paper examines the documentary *Fed Up* in order to understand the underlying structures behind the American construction of sugar. It outlines information and research from several scholars, researchers, and organizations—introducing scientific conversation concerning health outcomes from consumption of sugar. Nutritional positions from published scholars and researchers are discussed. The paper introduces context surrounding American consumer culture and defines particular representations of sugar in political, scientific, economic and cultural fields. This critical analysis specifically examines the documentary using the traditions of theorists Antonio Gramsci and Nikolas Rose. The analysis examines the film to explore power structures, roles of risk, responsibility, expertise, and choice in order to draw conclusions about how sugar's representation may affect prevalence of disease and human health.

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Introduction

The four dimensions of global health studies intimately intersect with this project. The dimension of science and the environment is closely linked with scientific and nutritional research surrounding sugar. The project covers the effects of sugar on the human body and the ways in which sugar may be correlated with the production of particular diseases and ailments. Viewing the documentary *Fed Up* from a critical standpoint gives individuals a deeper understanding of modern culture and the ways one's environment shapes their identity and their decisions. With this, cultures and society is heavily intertwined with my project. The analysis questions and criticizes existent power structures in contemporary society that lead to the subordination of particular groups, and the ways that these dominant power structures are intertwined with human health.

The paper explores ethics and social responsibility in inquiries of reducing rates of disease and ailments related to sugar, but also in societal demands, categorization of consumers, and oppression of particular groups. This analysis raises questions of responsibility, social and political justice surrounding sugar consumption, and questions of "healthy decision making". Power and economics is closely ties with the project in its discussion of nutrition from a political standpoint—covering positions from many governmentally funded organizations and discussing hostile economic, scientific, and political climates surrounding sugar and sugar consumption.

While many authoritative structures have claimed solutions to eradicating or at least reducing prevalence of these consumption related diseases, there still

remains targeted groups and a disparity of choice that is not considered among these authorities. Identifying the socially constructed institutions that perpetuate a culture of stigmatizing subordinate groups, and analyzing a new social epiphany that places focus on "the self" are both crucial elements to eliminating discrimination and implementing successful programs or products with the ultimate goal of eliminating disease. This project will focus specifically on sugar and the institutions involved in its widespread consumption.

Context and Literature Surrounding Sugar Consumption

It is important to first gain an understanding of sugar on a scientific level. Conventional diets and consumption of processed foods get much of the blame for the current obesity epidemic, high rates of diabetes, and high rates of cardiovascular disease that Americans are experiencing. Processed foods in particular contain considerable amounts of added sugar and unfavorable ingredients. It is important to analyze existing positions and information from scholars and associations about sugar. Information regarding health benefits and detriments on the consumption of added sugar is controversial.

Studies from the *American Heart Association* and the *American Medical Association* suggest that consumption of added sugar is associated with dyslipidemia (putting individuals at an increased risk for Cardiovascular disease) and reducing intake of added sugars may reduce risk of developing coronary heart disease. The *American Heart Association* advocates the explicit contribution of sugar to the worldwide obesity pandemic and sugar's role in high rates of cardiovascular disease

(Johnson et al., 2009). However, other figures reject the notion that sugar has any contribution to these epidemics or that sugar is correlated to chronic diseases like diabetes, coronary heart disease, obesity, or hyperactivity in children at all (Mardis, 2001).

Other epidemiological evidence and direct clinical evidence from the National Institute of Health concurs, showing that sugar is a significant contributor to the epidemics of metabolic syndrome, cardiovascular disease, and type 2 diabetes (Stanhope et al, 2013). Like this publication, many other studies suggest that high sugar consumption is associated with a variety of detrimental health outcomes. One study found that increased consumption of sugar was correlated with an increased prevalence of diabetes (Basu et al., 2013). Researchers from the American Association for Cancer Research and the Journal of National Cancer Institute also hypothesize that high levels of triglycerides, glucose, and insulin are associated with some forms of cancer and that diets high in simple sugars may increase risk for cancer (Slattery et al., 1997; Michaud et al., 2002).

Studies also maintain that most adults in the United States consume more added sugar than recommended in a healthy diet (Zhang et al., 2014; Quanhe et al., 2014). This increased sugar consumption has skyrocketed with the advent of processed foods. Rates of sugar consumption in the United States were around 120 pounds per year in the 1970, and 150 pounds per year in 1995 (about 0.5 pounds a day) (Howard et al., 2002). Sugar Sweetened Beverages are amongst the biggest contributors to added sugar consumption. SSBs are correlated with increased risk of long-term weight gain, type 2 diabetes, hypertension, fatty liver disease, and

cardiovascular disease (Hu, F. et al., 2010; Xiang et al., 2007; Malik et al., 2006; Malik et al., 2010; Dubois et al., 2008; Bray et al., 2014). Increased consumption of sugar-sweetened beverages is also linked to fructose-induced hyperuricemia, which may have a causal role in metabolic syndrome, type 2 diabetes, hypertension, and other chronic diseases (Hu, F. et al., 2010; Xiang et al., 2007; Malik et al., 2006; Malik et al., 2010; Dubois et al., 2008).

Scientific literature surrounding sugar suggests that a high consumption of added sugar correlates to disease and ailments (in particular diabetes, obesity, and cardiovascular disease). Other authors will argue that sugar is safe as long as it is consumed within a recommended ADI (Acceptable Daily Intake) (Marcason, 2015; McGovern, 1977; Brody, 1997; Cording, 2016). Still, some authors argue that all the sugars the body needs can be found in fruits, vegetables, and complex carbohydrates, but that added sugar is detrimental to human health and should be limited or completely avoided (Chasse, 2014; Cording, 2016; Coulston et al., 2002; Fetters, 2016; Fox, 2016; Group, 2010; Group, 2015; Gunnar, 2013; Howard et al., 2002; Hyman, 2014; Johnson et al., 2007; Malik et al., 2006; Soechtig et al., 2014; Taubes, 2011).

There are researchers and scholars who agree that there is a correlation between the consumption of sugar (especially added sugar) and the production of disease. In particular, these authors discuss the correlation of consumption of added sugar and the production of diabetes, cardiovascular disease, and obesity/weight gain. Of the scholars covered here, close to none would encourage increased consumption of sugar outside of explicitly stated Acceptable Daily Intake standards

(Brody, 1997; Chasse, 2014; Cording, 2016; Coulston et al., 2002; Fetters, 2016; Fox, 2016; Group, 2010; Group, 2015; Gunnar, 2013; Howard et al., 2002; Hyman, 2014; Johnson et al., 2007; Malik et al., 2006; Marcason, 2015; McGovern, 1977; Soechtig et al., 2014; Taubes, 2011). With this, articles like one from the International Food Information Council Foundation still exist. The article suggests controversial information like: all sugars are the same, sugar does not causes dental cavities, sugars do not cause obesity, diabetes, and other serious diseases, sugar is not addictive, sugar does not cause hyperactivity, eliminating sugar is not necessary to losing weight, and high fructose corn syrup does not causes obesity (International Food Information Council, 2010). This type of argument is few and far between.

Sugar consumption is often recognized as having an inevitable production of fat in the vital organs, thus contributing to the production of obesity, cardiovascular disease, diabetes, metabolic syndrome, and some types of cancer. While some authors will argue that some sources of sugars are better than others, and are essential to a healthy diet, (mostly those found in fruits, vegetables, and complex carbohydrates like whole grains) other authors will argue that sugars should be limited or avoided as much as possible. (Chasse, 2014; Cording, 2016; Coulston et al., 2002; Fetters, 2016; Fox, 2016; Group, 2010; Group, 2015; Gunnar, 2013; Howard et al., 2002; Hyman, 2014; Johnson et al., 2007; Malik et al., 2006; Soechtig et al., 2014; Taubes, 2011).

Other sources argue opposing views to the guidelines set forth by these organizations. Brody (1997) discusses differing sugar alcohols and artificial sweeteners that are used commercially as sweetening or bulking agents that are

considered safe by the Food and Drug Administration. He maintains that these sweeteners are safe within a particular ADI, but, like Chasse, 2014; Cording, 2016; Coulston et al., 2002; Fetters, 2016; Fox, 2016; Group, 2010; Group, 2015; Gunnar, 2013; Howard et al., 2002; Hyman, 2014; Johnson et al., 2007; Malik et al., 2006; Soechtig et al., 2014; Taubes, 2011, he notes that high levels of these sweeteners (which can be found in many conventional foods) are detrimental to human health. Marcason (2015) also recommends that the Food and Drug Administration set the standards for the appropriate amount of sugar to be consumed. While Marcason (2015) and Brody (1997) make little distinction between preferable types of sugar, Cording (2016) maintains that added sugars should be limited to the recommendations placed by the Academy of Nutrition and Dietetics (2016) and natural sources of sugar such as fruit, vegetables, and complex carbohydrates are preferable.

Regardless of varying views, of the scholars, researchers, and authors I have covered, the majority will maintain that added and unnatural sugars (i.e. sugars from sources other than fruits, vegetables, or whole grain complex carbohydrates) are unnecessary for the body and should be at the very least, limited (Brody, 1997; Chasse, 2014; Cording, 2016; Coulston et al., 2002; Fetters, 2016; Fox, 2016; Group, 2010; Group, 2015; Gunnar, 2013; Howard et al., 2002; Hyman, 2014; Johnson et al., 2007; Malik et al., 2006; Marcason, 2015; McGovern, 1977; Soechtig et al., 2014; Taubes, 2011). These scholars and researchers agree that these kinds of sugars are wildly detrimental to human health, will contribute to the production of disease, and have little to no nutritional value (Contie et al. 2014; Cording, 2016; Hyman, 2014;

Soechtig, 2014; Fetters, 2016; Taubes, 2011; Cancer Treatment Centers of America, 2014; Group, 2010; Gunnar, 2013). Mark Hyman, a physician, *NY Times* bestselling author, internationally recognized public speaker, director of clinics and institutions for functional medicine, medical editor of *The Huffington Post*, and a regular medical contributor on many television shows, is a very well recognized advocate of this "sugar as the enemy" mentality, claiming that, "…Sugar is 8 times more addictive than cocaine"…and that, "…[the] food industry has hijacked our taste buds, kitchens, brain chemistry, and our metabolisms" (Hyman, 2014; Hyman, 2016).

Like Hyman, some authors are very one-sided about their research and conclusions, strictly arguing that sugar is undeniably detrimental to human health. Others report controversial findings that may conclude otherwise. Much of the research surrounding sugar suggests that consumption of natural and added sugars is safe as long as it falls within an ADI (Acceptable Daily Intake). These consumption levels usually coordinate with guidelines set forth by any of the following organizations and institutions: the Academy of Nutrition and Dietetics (2016), American Heart Association (2015), World Health Organization (2015), Food and Drug Administration (2014), International Food Information Council (2010), Dietary Guidelines of America, American Diabetes Association, and United States Department of Agriculture (2016). There is controversial research surrounding the recommendations set forth by these departments, but regardless, their information and recommendations are widely accepted. Because standards set forth by these organizations are the most valued in the public, the obvious message, and "responsible" decision surrounding sugar consumption, is to limit it or completely

rid it from the diet. It is important to view this solution from a critical standpoint, because, considering the ways conventional foods (specifically those latent with sugar) are sold and made available to the public, particular groups are targeted as consumers and all people may not have an equal ability to reduce sugar in their diets or purchase "healthier" foods.

Still, authors like Hyman (2014), and Wendel (2011) follow a specific, trendy idea that an expensive and otherwise difficult to obtain diet is the most responsible and beneficial diet to consume. They believe that an organic, vegan diet is undeniably and exclusively essential to the production of human health, will eliminate risk of any disease, and that sugar and animal based dairy products (which contain natural sugars) will contribute to the production of obesity, diabetes, cancer, cardiovascular disease, and other ailments, and should be strictly avoided. This idea has gained incredible popularity with consumers striving to be "health conscious" and attempting to stick solely to non-conventional foods.

Just by going to the grocery store, one can inference that a large majority of foods in contemporarily available in the United States contain added sugar. While individuals have questioned the relationship between sugar and the production of disease and ailments, the sugar industry has long fought against the notion that sugar has a correlation or causation with the production of disease or disability. Since the 1950s, the industry has enforced the message that there is no such thing as a "fattening food"—that a calorie is a calorie regardless of whether it's coming from ice cream or a banana (Taubes, 2017). Any attempts at reform in the practices of

large food producers, processors, or distributors have been handled with great resistance and have yielded modest results.

An article recently published in *JAMA Internal Medicine* (Kearns et al. 2016) states that in 1967, the Sugar Research Foundation paid Harvard Scientists a modern equivalent of $50,000 to publish results claiming that sugar consumption had no correlation with heart disease (Domonoske, 2016). The Sugar Research Foundation demanded that these scientists lessen perceived risks of sugar, and put direct blame on fat and cholesterol for the production of disease. It also dismissed any significant epidemiological findings that may have reported evidence of a correlation between sugar and patterns of disease in the real world (Domonoske, 2016). By publishing these results under highly valued scientific experts, the Sugar Research Foundation was able to significantly manipulate scientific discussion on this topic.

Contemporarily, the sugar industry has done much the same. The world's largest producer of sugary beverages, Coca-Cola, has joined forces with scientists to promote a message that in order to maintain a healthy weight, caloric content matters less and exercise matters more. It has invested close to $6 million to promote this message adequately across medical journals, scientific conferences, and social media (O'Conner, 2015). Even nutritionists will promote the belief that obesity is the result of strictly caloric consumption—something the sugar industry has been ecstatic about for years (Taubes, 2017). By mass-producing this message on a global scale, Coca-Cola aims to shift its image in the eyes of consumers—in hopes of being considered a beverage that can be consumed with no consequences.

Big sugar simultaneously ignores medical factual information that discusses the risks of high sugar consumption or the ways that bodies metabolize different types of foods (Taubes, 2017; O'Conner, 2015).

While the sugar industry has been found to hide certain medical information surrounding sugar, they have also been found to create data themselves. A review published in the *Annals of Internal Medicine* states, "any warnings to cut sugar are based on weak evidence and cannot be trusted" (O'Conner, 2016). It turns out that the published review was paid for by the International Life Sciences Institute-- a group funded by *Coca-Cola*, *General Mills, Hershey's*, *Kellog's*, *Kraft Foods*, and *Monsanto* (O'Conner, 2016). The sugar industry's publications in highly accredited medical journals reinforce its ability to make claims to the public that go against scientific research. Its ability to maintain these beliefs in public discussion and fight against full disclosure surrounding the effects of high sugar consumption leave consumers under the guise of making responsible decisions, and enforce a message of personal responsibility: that the consumers' health outcome is a direct result of their decisions—in other words, it's their fault they're fat.

This theme emphasizing personal responsibility is even more apparent in popular culture with shows like *The Biggest Loser. The Biggest Loser* is a reality television show starring obese contestants documented on their journey to lose weight. Contestants undergo a lengthy "boot camp" and are trained in the gym, and surveilled in the kitchen. Representatives on the show are quick to demonize sugar consumption, treating it like a vice. One episode in particular features Dr. Robert Huizenga, an associate clinical professor of medicine at University of California Los

Angeles (American Association of Clinical Endocrinologists, 2017). Dr. Huizenga warns a contestant of the amount of sugar he consumes, emphasizing repeatedly that sugar is a "poison" and even throwing a handful of sugar on him (Broom, 2016). This demonization of sugar and ridicule of the contestant himself highlights the focus on the self—that it is the contestant's responsibility to make decisions that would improve his own health regardless of the environment or institutions that his health may be a product of.

Other scholars have responded to this media and analyzed the food industry and consumption with a critical eye, also recognizing the focus on personal responsibility and the disparity of choice posited by these industries. In Hollander's *Re-naturalizing sugar: narratives of place, production and consumption*, she analyzes marketer's representations of sugar, explores competition in the sweetener industry, and double commodity fetishism through liberation marketing—they way the industry makes consumers feel a sense of social justice via its marketing tactics. She elaborates on this with the argument that food commodities that fail to document their journey from farm to table are not even considered competitive because consumers want the types of products that make them feel like good people (Hollander, 2003). Double commodity fetishism ties in where marketers withhold information on the realities of their product manufacturing—selling expensive goods covered with a mask of social justice, which, apparently, makes it worth the money (Hollander, 2003). Hollander's ideas are relevant to much of what's going on with the food industry today—especially sugar—in terms of transparency. By recognizing the food industry's promotion of particular ideas to position consumers

to feel responsible in maintaining their own health, she recognizes a harsh charge put on consumers—that it is the consumer's duty to purchase products that make them the most optimal version of themselves (whether in terms of health or social change). The article also informs a higher hegemonic power system—the industry's ability to keep certain consumers consuming, and other consumers not—in other words—its ability to oppress particular groups under the pretense of empowerment.

Like Hollander, Thanem also analyzes consumer culture. In his paper *'There's no limit to how much you can consume': the New Public Health and struggle to manage healthy bodies*, Thanem discusses an emphasized focus on the individual human body and health promotion as the management of healthy bodies (Thanem, 2009). He analyzes a healthy eating campaign in the UK using Foucault's idea of Governmentality and the campaign's utilization of neoliberal connotations—claiming that individuals are supposedly empowered and free to make their own choices, but are actually constrained by state and governmental institutions (Thanem, 2009). Thanem's critique of one healthy eating campaign in the UK is applicable to the American construction of food commodities as well—that though these products (non-conventional foods) are technically "available" to everyone, and it is everyone's responsibility to purchase them with an ideal outcome of health, only select people can purchase them— people who have the appropriate financial, educational, and environmental means available. This splits America's consumer culture into two categories: the subordinate, and the elite.

Popular culture sources like magazines and documentaries (aimed at the "elite") are infiltrated with these neoliberal ideas as well. Many harp on the successes of fad diets. Documentaries have gotten significant attention for promoting alternative diets and highlighting the health detriments resulting from consumption of conventional foods. A few documentaries that do this are: *Forks Over Knives* (Wendel, 2011), *Vegucated* (Wolfson, 2011), *Fat, Sick, and Nearly Dead* (Cross, 2010), and *Fed Up* (Soechtig, 2014). These films have all demonized the consumption of conventional foods, solely promoting diets from whole-food, plant-based sources. Some of these films even shame the consumption of meats and dairy products. Considering the way vegan and plant-based diets are marketed, the overarching aim behind the diets are, primarily, weight loss; and then the prevention of disease and ailments.

Fed Up is an American documentary that was created and nationally released in May 2014 by Miramax. The film was popular—premiering in select cities and profiting $1.5 million in Box Office. It is now made available to the public through Netflix, online streaming, and rental. The documentary received positive reviews from a variety of publications including LA Weekly, USA Today, The Wrap, Indiewire, and HITFIX—all publications that are geared towards a privileged, upper-to-upper middle class audience. The documentary demonizes the position of the food industry—in particular, "Big Sugar", and claims their prioritization of private profit over basic human health. It targets big industry sectors, the government, and political fields over other sources as largely responsible for the obesity epidemic. Identifying higher power structures that continuously maintain the subordination of

particular groups, the disparity of choice that results, and a new focus on "the self" (responsibility and risk) are all crucial elements to eliminating discrimination and implementing successful programs and products that may be able to reduce or eliminate disease associated with high consumption of sugar.

Theoretical Framework

The human body and life itself have been understood, and are still being understood, in molecular and somatic contexts. The "somatic self" is defined as a reworking of identity where one's personhood is intimately intertwined with their body. This theoretical concept identifies with Rose's approach to neoliberalism. Neoliberalism works with an underlying theme of self-optimization and the ways in which individuals learn how to meet societal expectations and norms.

A working definition of this idea as outlined by Rose in "The Politics of Life Itself" is,

> "…Medical thought…[has been] fully engaged in the ethical question of how we should live— what kind of creatures we are, of the kinds of obligations that we have to ourselves and to others, of the techniques which we can and should use to improve ourselves, and the kinds of persons we should strive to be" (Rose, 2001).

This new formula for shaping personal identity results in a new understanding of individual responsibility. Lifestyle decisions face rewards or consequences that are determined by society and fixed on the individual. It is the individual's responsibility to come as close as they can to a societally outlined version of

"normality"—in the case of sugar and the obesity epidemic, fit. Rose states, "…there [is] no clear distinction between…the pursuit of health and the elimination of unfitness, between consent and compulsion" (Rose, 2001). According to Rose, a contemporary person should be, "free yet responsible…encouraging the conduct of life in a calculative manner by acts of choice with an eye to the future and to increasing self well-being" (Novas and Rose, 2000). With this, it is the ideal modern civilian's absolute responsibility to make decisions that lead to their most optimal outcomes, regardless of what obstacles stand before them.

Power and control have also been understood in alternative ways. Antonio Gramsci's theoretical concept of cultural hegemony will be relevant to my analysis in its intersection with Rose's idea of neoliberalism. Gramsci's concept of cultural hegemony argues that dominant powers such as states use cultural institutions to maintain power in capitalist societies. It is the sole intention of higher power structures to, "…improve the quality of the national stock and eliminate taints or weaknesses that might threaten it" (Rose, 2001). Anomalous bodies, given a perceived choice to optimize, should always make that choice, and would be reprimanded in the case of the alternative. According to Gramsci, this perceived freedom to make a choice is, "A silent domination that is not experienced as domination at all" (Gitlin, 1980). Hegemonic power structures take something highly political, empty it of its politics, and dish it out for public consumption as a commodity. By giving their audience perceived choice, dominant powers subordinate particular groups and maintain elitist power invisibly—the domination is experienced as freedom, and is therefore consensual. This is the sole intention and

necessity of hegemonic power structures—that population purification may occur under a mask of empowerment.

Through *Fed Up*'s documentation of particular families, the demonization of the sugar industry and sugar consumers, the industry's inherent ability to oppress particular groups under the guise of empowerment, and a new societal epiphany of self-optimization, I will claim that a new discourse of responsibility exists in contemporary culture. I will also claim that with this new definition of responsibility comes an irrational façade of choice—positioning particular groups as subordinates, and their counterparts as elite.

Analysis

In a society pivotally focused on liberal meritocracy, and the rise of the individual, people are constantly inundated with messages of self-optimization and individual obligation. "Foodies" of today boast lifestyles of grocery shopping at Whole Foods and Trader Joes, casually drinking *Kombucha* (a probiotic beverage sold at $3.69 a bottle), snacking on *KIND Bars* (granola bars sold at $3.59 individually) and only purchasing expensive, locally sourced, organic food commodities with a free conscience (Fresh Direct, 2017). The way these foods are marketed with terms like "probiotic", or "low glycemic index", for example, require a particular level of literacy and privilege, targeting first-class consumers and quietly subordinating the rest. These first-class consumers are amongst the elite—only eating the purest forms of food with the idealistic, expected outcome of the purest body.

Fed Up discusses private and public influence on consumption patterns of Americans, the sharp rise of the obesity epidemic, and emphasizes the importance of consuming a whole-food diet. The documentary looks particularly at sugar, arguing the sugar industry's ability to promote certain messages in cultural contexts. The film simultaneously harps on the detrimental effects of consuming sugar. It claims the government's funding of the obesity epidemic, the prioritization of private profit ahead of public health, the comparison of sugar to addictive drugs, and the failure of the sugar industry to claim any responsibility for contributing to detrimental health effects (Soechtig, 2014; Hyman, 2014;). The documentary discusses the inevitable rise of disease as a result of the sugar industry maintaining authority in cultural, academic, and economic systems. Past criticisms have noted that this may be partially due to the fact that the majority of the producers and executives involved in the creation of the film were not nutritionists or scientific experts. Director and Executive Producers Stephanie Soechtig, Katie Couric, and Laurie David all lack any background in scientific or nutritional fields (Atlas Films LLC, 2017; Couric, 2017; David, 2017). Creators behind the film were largely public figures and television specialists (Fed Up: It's Time To Get Real About Food, 2014).

Michael Pollan, a professor of journalism at University of California Berkley and nationally recognized author who studies food and "where nature and culture intersect: on our plates, in our farms and gardens, and in the built environment" is featured throughout the documentary (Pollan, 2017). He is recognized in *TIME* magazine, *Newsweek*, and *The New York Times Magazine* for receiving numerous awards, is author of the popular book *The Omnivore's Dilemma* and various other

titles, appeared in two-hour PBS special *The Botany of Desire*, and appeared in the Documentary *Food Inc* (Pollan, 2017). Given that Pollan's expertise is rooted in writing and journalism, his scientific claims about food on a biological level should be critically considered, but are widely accepted. His publicity in documentaries, magazines, and award ceremonies have all earned him a large following of privileged "foodies"—those fortunate enough to obtain appropriate levels of education, wealth, and food literacy. Pollan's publicity has validated for him a level of expertise in an area where he may otherwise be considered less distinguished than others.

In contrast to Pollan, the film does feature two representatives with a background in medicine: Dr. Mark Hyman and Dr. Robert Lustig. In addition to his medical background, Hyman is also a recognized and awarded author and speaker (Hyman, 2016). Dr. Robert Lustig is a professor of Pediatrics in the division of Endocrinology at University of California, San Francisco. He also directs the program for the Weight and Assessment for Teen and Child Health (WATCH) program at UCSF (The Regents of the University of California, 2017). Like Pollan, both doctors fall into the elitist category of consumer—those with the power, wealth, education, and ability to consume non-conventional food commodities—and have followings of "foodies" who also have these abilities and fall into the same category. Because the film features these types of public figures, it is appropriate to conclude their respective followers are a target audience for the documentary.

While the film specifies a particular audience, it pulls on institutions that America shares as a nation. To develop its argument, the film uses examples from

government-funded organizations like the United States Department of Agriculture, the World Health Organization, and even the White House. The film's use of these institutions is novel of the film's use of fear—that though the target audience is wildly different from the conventional food consumers documented in the film; the target audience needs to be under the impression that the documented families' hardship is a possibility for them. By doing this, the target audience of elitist consumers feel pity for lower-class consumers referenced in the film. The documentary is able to make the audience feel bad for lower class consumers, while simultaneously evoking fear—a motivator to keep the purist, most elite bodies and identities possible. The documentary features a lengthy section devoted to Big Sugar's response to Michelle Obama's "Let's Move!" campaign. Its use of her campaign in this instance ties to the film's use of fear—that it isn't just the families documented in the film that are at risk—the whole nation is vulnerable. Arguably, the film could not have gained as much popularity without its use of fear and pity.

With an established audience and emotional appeal, the documentary specifically targets the sugar industry, claiming that such organizations push their products on naïve consumers, boasting an idealistic outcome of improved health. It provides an example of a Coca-Cola advertisement that says, "… [it all comes down to a] simple, common sense fact. All calories count. No matter where they come from—including Coca-Cola and everything else with calories" (Soechtig et al., 2014). With this message, the industry omits individual blame for obesity or overweight with a message of responsible consumption—that it should be easy for overweight

or obese bodies to lose weight and improve themselves by simply consuming more Coca Cola.

The sugar industry's ability to promote this message is exemplary of its existence as a hegemonic power structure—that it is able to promote its products as "responsible" choices, all the while keeping its consumers unhealthy, creating health disparities in particular groups, and subordinating its consumers while it empowers those who have the knowledge and ability to purchase non-conventional foods and maintain fit bodies. In other words, the sugar industry is able to keep people unknowledgeable and unhealthy for private profit. The film consistently references this "calories in vs. calories out" mentality from Big Sugar, appropriately naming it "the cure"—alluding to an easy medicate for obese or overweight bodies to lose weight created by corporate sugar.

The film extends its stigmatization of particular bodies, in turn enlarging its subordinate population, by introducing the term TOFI- Thin on the Outside, Fat on the Inside. It uses an example comparing Brady Kluge (14 year-old obese boy followed in the film) to his thin, younger brother. Mark Hyman explains the reasoning that their consumption patterns could be very similar, and their bodies so different: "Many people think that if you're thin you're healthy, but that's not necessarily true… You can be fat on the inside and skinny on the outside… it's very dangerous and has all the same consequences of being fat" (Soechtig et al., 2014; Hyman, 2014). By positioning visibly thin bodies as capable of adverse health and stigmatization, the film is able to position the audience to feel vulnerable, and hence heighten their consumption of expensive, non-conventional products—that even

thin bodies must strive to be more pure. The use of this example further blurs the line between fitness and health—that even though there is a perceived, objective, physiological explanation why thin bodies may not be as healthy as they look, they are still the ideal healthy body.

The film positions Big Sugar as a threat to the socially constructed version of health—bodies free of disease, disability, stigmatization, or ailments. Larger systems of corporate responsibility and modern eugenics are applicable in that the film recognizes obese, overweight, diabetic, or otherwise stigmatized bodies as "in need of fixing", and that it is Big Sugar's responsibility to be more transparent about the adverse health affects of sugar consumption at the expense of its profit. In The Politics of Life Itself, Nikolas Rose criticizes the goals of political authority with his understanding of biopolitics and the reality of a contemporary eugenics existent as "risk politics" in modern culture. He explains that according to societal institutions, "…political authority [should]…improve the quality of the national stock and eliminate taints or weaknesses that might threaten it" (Rose, 2001). *Fed Up* shows the political duty of population purification—at first shifting the blame for the obesity epidemic from the individual to the corporation. The film uses the message that Coca Cola promotes to emphasize a criticism of its corporate responsibility—claiming that promoting messages like "the cure" are a necessary agent in the production of obesity, diabetes, heart disease, and other ailments that lead to the ultimate impurity of the public body.

This eugenic thought is apparent in political fields as well. The film claims that political arenas fall victim to the sugar industry's influence, perpetuating their

messages in the White House, WHO, and USDA (Soechtig et al., 2014). This idea bolsters the ultimate argument of the film: that consumption and the obesity epidemic is a battle—the industry and the government (villains) versus the scientists (heroes) and the people (victims). Here, scientists are validating the conceptual idea of biopolitics according to Nikolas Rose. In The Politics of Life Itself, Nikolas Rose states, "…the very project of biopolitics: to manage the health of the 'body politic' inescapably requires the control and elimination of foreign bodies" (Rose, 2001). The film represents their scientific figures in a heroic, but also contemporarily eugenic light—fighting against public organizations' continuous promotion of sugar consumption in hopes of ridding all consumers of any disease, disability, or ailments that would result from sugar consumption—in essence, trying to achieve the most elite population possible.

While the representatives in the film are quick to demonize the sugar industry, they lack the same critique of various other corporations that are arguably just as responsible for the obesity epidemic. The importance of exercise, or the outcomes of a sedentary lifestyle, are hardly recognized or are not even considered threats. In commentary to Big Sugar's reaction to Michelle Obama's "Let's Move!" campaign, Michael Pollan says, "The name "Let's Move!" was not meant to evoke exercise… but what a food industry person hears is their interpretation of the obesity epidemic which is that, 'we are too sedentary… it's our own damn fault because we're sitting watching TV too much, it's not the food'…[but] it is the food (Soecthig et al., 2014; Pollan, 2014). While organizations like Netflix or even Apple could be critiqued for their prioritization of profit over health, targeted for

promoting a sedentary lifestyle, and arguably blamed for contributing to the obesity epidemic just as much as the sugar industry, Pollan's commentary demonstrates the targeting of the food industry in particular, and the film's failure to recognize anything but food and Big Sugar's corporate selfishness as a direct contributor to health disparities.

The documentary makes an allegation consistently throughout the film that corporate sugar's calorie counting philosophy, sarcastically called "the cure" in the film, is an atrocity that is a dominant criminal of the obesity epidemic. At the same time, the documentary compares sugar to illegal drugs like cocaine and heroin on many occasions. According to Rose, sugar consumers understand Big Sugar's promotion of "the cure"—a healing agent— in a way that mirrors: "All medicine was able to hope for was to arrest the abnormality, [and] to reestablish…the normativity of the body that sustained it" (Rose, 2001). The contradiction of the sugar industry represented in a criminal light with its comparison to illegal drugs and sarcastic use of the word "cure" as a healing agent or drug, when it is in fact being argued as a poison in the film, is exemplary of a medical thought imbedded in today's society—that on a somatic and cellular level, people are easily able to conceptualize sugar as a drug or medicine—whether regarded as a criminal offense (illegal drugs) or a healing agent ("the cure"). Further, drugs are being understood as vehicles of transformation—in the case of Big Sugar and cocaine or heroin—transformation into a villain, and in the case of the public and "the cure"—transformation into the most optimal version of oneself.

This medical thought continues in the film. Many of the "experts" regarded in the film discuss high sugar consumption as an addiction, which is medically considered a disease. Mark Hyman emphasizes this idea of public exemption when he states, "…if you eat foods that are addictive, you can't just have one line of coke… you can't just have two cigarettes… you're [going to] become an addict" (Soechtig et al., 2014; Hyman, 2014). This framework using medical justification to represent the sugar industry as a criminal makes it easy for viewers to identify Big Sugar as a felon regardless of their actual knowledge of sugar on a physiological or metabolic level. This idea of medical justification—taking the blame off of the individual—is reinforced other times in the film when sugar is compared to cigarette and alcohol addiction. Gary Taubes states, "…just like cigarettes literally cause lung cancer, certain foods literally make you fat" (Soechtig et al., 2014; Taubes, 2014). Here, Taubes aims to shift responsibility from the individual to a helpless physiological state brought on by the food industry. Brady Kluge, a 14 year-old obese boy, reiterates his consumption habits as a medically justified addiction when he states, "… it's just like being an alcoholic… do you think an alcoholic could withstand from drinking that alcohol if he had a bottle of gin sitting next to him?" (Soechtig et al., 2014; Kluge, 2014). By using alcoholism (a medically asserted addiction) as a parallel example, and using Brady, who is medically diagnosed as obese, the audience is positioned to sympathize with those considered obese and justify their diagnoses based on medically affirmed addiction though much of the audience is likely not knowledgeable about sugar on a physiological or metabolic level. This allows the film to turn the blame from the individual to the industry.

The film is able to make audience members feel justified in their knowledge, or lack thereof, of sugar consumption. It uses an animation of a boy digesting a handful of almonds compared to a handful of sugar. The animation shows the almonds being shot down a tube, being registered in an organ-shaped vessel labeled "The Digestive System" and showing a box labeled "The Liver" with a speedometer on top to show how blood sugar is affected by each of the foods (Soechtig et al., 2014). When sugar is registered in the so-called "Liver", the speedometer peaks and burns out, much like a machine would (Soechtig et al., 2014). Though most of the film's viewers probably do not actually understand the physiological or metabolic details of sugar consumption, this elementary animation is able make viewers feel as though they understand the digestive underpinnings of consuming sugar. This helps the film to represent the sugar industry as a felon for perpetuating a philosophy that every food is digestively the same. Through their animation, the film shows that perpetuating a consumption philosophy of balancing calories is obviously dangerous to human health.

An inflated sense of understanding through elementary animations and medical justifications like addiction help the audience to empathize with the documented families. In these scenarios, privileged consumers are able to relate to under-privileged consumers on a biological level—metabolically and physiologically. This helps the audience feel vulnerable to the same institutions that oppress the documented families, and feel susceptible to their hardships as a subordinate group. The film's ability to make the audience believe that the concrete answer to why individuals are obese or overweight is strictly biological, points

attention away from hegemonic power structures that are actually perpetuating the subordination of under-privileged consumers. This belief hides a larger, socially constructed disparity of choice. On one hand, all consumers are apparently free and able to consume as they please, but on the other hand, not all consumers are empowered enough (educationally, financially, economically, etc.).

The documentary victimizes the public in other ways as well, by stating that the sugar industry targets babies and infants— publicly recognized as sources of innocence and vulnerability—as victims of Big Sugar's addiction game. One portion of the film does this explicitly, by claiming that the availability of particular formulas opens the potential to "[start] your baby early on addictive, highly sugary foods" (Soechtig et al., 2014; Lustig, 2014). Mark Hyman goes on to state, "…the food industry knows that the sooner they introduce these foods to people…to children…to infants…the more likely they will have branded them for the future (Soechtig et al., 2014; Hyman, 2014). In this, the film aims to claim Big Sugar's intentional agenda to poison children at the fault of their parents—the consumers—and intentionally force addiction upon them. With this, the film sets up a contradictory role of responsibility—at first, it points responsibility away from consumers and towards the industry, but then shifts responsibility from the industry to consumers—further, to parents.

The film focuses almost exclusively on children and infants as victims of the sugar industry—leaving out adult or parental examples of victimization. While the film targets the sugar industry as the main perpetrator of the obesity epidemic, it also holds parents responsible—mothers in particular—for the health disparities of

their children and families based on the consumption choices they make. In the film, Brady's mother, Tinna Kluge, states, "…it's a matter of priority…the kids' health, my husband's health, my health… it's more important than any chocolate I have in the cabinet. I've gotta choose between helping Brady, or giving him the chocolate" (Soechtig et al., 2014; Kluge, 2014). This outlines socially constructed roles of "motherhood" and a contradictory representation of responsibility. Kluge's desire to reverse obesity and adverse health affects in her household suggest that in contemporary society, it is often the mother's ethical responsibility to "fix their family". We can see this narrative in current society with people like Jenny McCarthy, who became a "…passionate advocate for family issues, children's health and autism awareness…" when her son developed autism (Kluger, 2009). Societally, and probably internally, there lies a duty for mothers to "save their kid", or take dire measures to normalize their children and rid them of disease and disability. Identifying with her motherly role, Kluge becomes enveloped in her obligation to rid her family of obesity and unfavorable health outcomes, and puts this responsibility at the forefront of her decision-making. The film sets up a contradictory explanation of responsibility—at first turning responsibility away from the individual, and then positioning it on the individual—on the mother.

This contradictory representation of responsibility informs a hegemonic power structure present in the film. The documentary appears to be compassionate for obese and overweight consumers. However, by subtly enforcing individual responsibility on consumers that cannot possibly purchase non-conventional foods given their level of wealth, education, or geographic ability, the film reveals its

intention to keep consumers categorized. By bluntly placing blame on the food industry—particularly sugar—the scientists regarded in the film are represented with a veil of heroic operation: whose heroic intention is to "save" the victims—the public.

Conclusion

This analysis of *Fed Up* is applicable to sugar and consumer culture at large. By following particular families, that all seemingly share similarities as low- income, lower education, and lower food access groups, the documentary reinforces a societally targeted group for consumption of conventional foods and thus higher rates of health outcomes associated with that type of diet (obesity, heart disease, diabetes, etc.) in this group. The subordination of this group under the guise of empowerment (via perceived freedom of choice) facilitates higher consumption of conventional products, private profit, and keeps power in governmental and corporate hands. At the same time, with a new epiphany of self-focus and self-optimization, consumption of non-conventional products by elitist consumers intensifies the subordination of non-privileged consumers.

While this analysis focuses specifically on responsibility, and choice regarding sugar in consumer culture, scholars within the fields of communication and public health can further this discussion in many different ways. *Fed Up* is only one text within a wider range of film representations of western society's relationship with sugar. Other positions exist beyond the limits of my project. A few possible routes not covered here are a deeper exploration of bodies, a focus on fat and "fatness", or an exploration of a wide range of demographic roles.

Identifying larger power structures that are at play in the representation and consumption of sugar is vital to reducing health disparities associated with high consumption of sugar. Categorization existent in consumer culture and stigmatization of particular bodies as a result of societally instituted ideals results in the quiet subordination of particular groups. This undoubtedly targets specific consumers as objects of conventional consumption, and in turn, particular individuals for health disparities associated with a diet high in these types of foods. An idealistic message of individual responsibility for maintaining a healthy body is irrational given the disparity of choice resulting from higher institutions of power existent in consumer culture.

Works Cited

Academy of Nutrition and Dietetics. (2012). Position of the Academy of Nutrition and Dietetics: Use of Nutritive and Nonnutritive Sweeteners. Journal of the Academy of Nutrition and Dietetics, 112(5), 739-758. Retrieved from

American Association of Clinical Endocrinologists. (2017). Robert Huizenga, MD: Associate Professor of Clinical Medicine at UCLA. Retrieved from http://media.aace.com/leadership/2012-annual-meeting-experts/robert-huizenga-md

American Heart Association (2014). Sugar 101. American Heart Association. Retrieved from http://www.heart.org/HEARTORG/HealthyLiving/HealthyEating/Sugars101_UCM_306024_Article.jsp#.Vvlw5lKNWCQ

Atlas Films LLC. (2017). Stephanie Soechtig: Biography. Retrieved March 23, 2017 from http://www.imdb.com/name/nm3253001/bio

Basu, S., Yoffee, P., Hills, N., Lustig, R. (2013). The Relationship of Sugar to Population-Level Diabetes Prevalence: An Econometric Analysis of Repeated Cross-Sectional Data. *PLOS One*. Retrieved from http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0057873#abstract0

Bray, G., Popkin, B. (2014). Dietary Sugar and Body Weight: Have We Reached a Crisis in the Epidemic of Obesity and Diabetes?. *American Diabetes Association*. Retrieved from http://care.diabetesjournals.org/content/37/4/950.short

Brody, J. E.. (1997). Cash in on Carbohydrates. In W. V. Tamborlane, J. Z. Weiswasser, T. Fung, N. A. Held, & T. P. Liskov (Eds.), *The Yale Guide to Children's Nutrition* (pp. 209–214). Yale University Press. Retrieved from http://www.jstor.org.ezproxy1.allegheny.edu:2048/stable/j.ctt5hk0m2.34

Broom, D. (Writer), Harper, B., Rhea, C., Sweeney, A. (Presenters). (2016). Autopsy Room Wake-Up Call [Television series episode]. In P. Gaha, E. (Producer), *The Biggest Loser*. United States: NBCUniversal Television Distribution.

Chasse, Andy. (2014). What Are Refined Sugars?. LIVESTRONG.COM. Retrieved from http://www.livestrong.com/article/67126-refined-sugars/

Cording, J. (2016, January 7). *Looking to Reduce Your Family's Added Sugar Intake? Here's How*. Retrieved from http://www.eatright.org/resource/food/nutrition/dietary-guidelines-and-myplate/looking-to-reduce-your-familys-added-sugar-intake-heres-how

Coulston, A. M., & Johnson, R. K. (2002). Sugar and sugars: Myths and realities. *American Dietetic Association.Journal of the American Dietetic Association, 102*(3), 351-3. Retrieved from http://search.proquest.com/docview/218456260?accountid=8268

Couric, Katie. (2017). Katie Couric: Here's what I've been up to!. Retrieved March 23, 2017 from http://katiecouric.com/

Cross, J., Engfehr, K. (Directors). (2010). Fat, Sick, & Nearly Dead [Video file]. Retrieved March 21, 2017, from www.fatsickandnearlydead.com

Cancer Center Treatments of America. (2014). Natural vs. refined sugars: What's the difference?. Cancer Treatment Centers of America. Retrieved from http://www.cancercenter.com/discussions/blog/natural-vs-refined-sugars-whats-the-difference/

David, Laurie. (2017). *Laurie David Author & Producer: About Laurie*. Retrieved March 23, 2017 from http://lauriedavid.com/about-laurie/

Domonoske, Camila. 50 Years Ago, Sugar Industry Quietly Blamed Scientists to Point Blame at Fat. *The two-way: Breaking News from NPR* (2016, September 16). Retrieved February 15, 2017, from http://www.npr.org/sections/thetwo-way/2016/09/13/493739074/50-years-ago-sugar-industry-quietly-paid-scientists-to-point-blame-at-fat?utm_source=facebook.com&utm_medium=social&utm_campaign=npr&utm_term=nprnews&utm_content=20160913

Dubois, L., Farmer, A., Girard, M., Peterson, K. (2008). Regular Sugar-Sweetened Beverage Consumption between Meals Increases Risk of Overweight among Preschool-Aged Children. *ELSEVIER: Journal of the American Dietetic Association*. Retrieved from http://www.sciencedirect.com/science/article/pii/S000282230700435X

Fed Up: It's Time To Get Real About Food. (2014). Retrieved March 3, 2017, from http://fedupmovie.com/#/page/home

Fetters, Aleisha K. (2016). 9 Reasons to Eat Less Sugar That Have Nothing to Do With Weight Loss. *U.S. News & World Report: Health*. Retrieved from http://health.usnews.com/health-news/health-wellness/articles/2016-01-22/9-reasons-to-eat-less-sugar-that-have-nothing-to-do-with-weight-loss

Fox, Maggie. (2016). Here's How Sugar Might Fuel the Growth of Cancer. *NBCNEWS*. Retrieved from http://www.nbcnews.com/health/cancer/here-s-how-sugar-might-fuel-growth-cancer-n488456

Fresh Direct, LLC. (2017). GT's Organic Raw Kombucha, Gingerade. Retrieved from https://www.freshdirect.com/pdp.jsp?productId=dai_gts_kmbginger&catId=gro_bever_juice_more

Fresh Direct, LLC. (2017). KIND Healthy Grains Bars, Dark Chocolate Chunk Granola. Retrieved from https://www.freshdirect.com/pdp.jsp?productId=gro_pid_4008958&catId=gro_snack_grano

Gail M. Hollander (2003) Re-naturalizing sugar: Narratives of place, production and consumption, Social & Cultural Geography, 4:1, 59-74, DOI: 10.1080/1464936032000049315

Group, Edward. (2010). 5 Health Dangers of High Fructose Corn Syrup. *Global Healing Center*. Retrieved from http://www.globalhealingcenter.com/natural-health/high-fructose-corn-syrup-dangers/

Group, Edward. (2015). 4 Reasons to Get Sugar Out of Your Life. *Global Healing Center*. Retrieved from www.globalhealingcenter.com/natural-health/high-fructose-corn-syrup-dangers/

Gunnar, Kris. (2013). 10 Disturbing Reasons Why Sugar is Bad For You. Authority Nutrition: An Evidence-Based Approach. Retrieved from https://authoritynutrition.com/10-disturbing-reasons-why-sugar-is-bad/

Howard, B. V., & Wylie-Rosett, J. (2002). Sugar and cardiovascular disease: A statement for healthcare professionals from the committee on nutrition of the council on nutrition, physical activity, and metabolism of the american heart association. *American Heart Association Circulation, 106*(4), 523-527. doi:10.1161/01.CIR.0000019552.77778.04

Hu, F., Malik, V. (2010). Sugar-sweetened beverages and risk of obesity and type 2 diabetes: Epidemiologic evidence. *Elsevier: Physiology & Behavior*. Retrieved from http://www.sciencedirect.com/science/article/pii/S0031938410000600

Hyman, Mark. (2014). Sugar: Is it as addictive as cocaine?. *CBS News*. Retrieved from http://www.cbsnews.com/videos/sugar-is-it-as-addictive-as-cocaine/

Hyman, M., MD. (2016). About Dr. Mark Hyman. Retrieved March 18, 2017, from http://drhyman.com/about-2/about-dr-mark-hyman/

International Food Information Council Foundation (2010). Sugars: 10 Facts You May Not Know. *International Food Information Council Foundation*. Retrieved from http://www.foodinsight.org/Content/3862/10%20FACTS.pdf

Pollan, M., (2017). About Michael Pollan. Retrieved March 23, 2017, from http://michaelpollan.com/press-kit/

Johnson, R. J., Segal, M. S., Sautin, Y., Nakagawa, T., Feig, D. I., Kang, D., . . . Snchez-Lozada, L. G. (2007). Potential role of sugar (fructose) in the epidemic of hypertension, obesity and the metabolic syndrome, diabetes, kidney disease, and cardiovascular disease. *The American Journal of Clinical Nutrition, 86*(4), 899-906.

Johnson, R., Appel, L., Brands, M., Howard, B., Lefevre, M., Lustig, R., Sacks, F., Steffen, L., Wylie-Rosett, J. Dietary Sugars Intake and Cardiovascular Health: A Sceintific Statement from the American Heart Association. *American Heart Association.* Retrieved from http://circ.ahajournals.org/content/120/11/1011.short

Kearns, C. E., Schmidt L.A., Stanton G.A., (2016). Sugar Industry and Coronary Heart Disease Research: A Historical Analysis of Internal Industry Documents. *JAMA Internal Medicine.* Retrieved from http://jamanetwork.com/journals/jamainternalmedicine/article-abstract/2548255

Kluger, J. (2009, April 1). Jeny McCarthy on Autism and Vaccines. TIME, pp. 1-3.

Malik, V. S., Schulze, M. B., & Hu, F. B. (2006). Intake of sugar-sweetened beverages and weight gain: A systematic review. *The American Journal of Clinical Nutrition, 84*(2), 274-288.

Malik, V., Popkin, B., Bray, G., Després, J., Willett, W., Hu, F. (2010). Sugar-Sweetened Beverages and Risk of Metabolic Syndrome and Type 2 Diabetes. American Diabetes Association. Retrieved from http://care.diabetesjournals.org/content/33/11/2477.short

Marcason, W. (2015, February 11). *Sugar Substitutes: How Much is too Much?*. Retrieved from http://www.eatright.org/resource/food/nutrition/dietary-guidelines-and-myplate/sugar-substitutes-how-much-is-too-much

Mardis, A. Current knowledge of the health effects of sugar intake. *ProQuest*. Retrieved from http://search.proquest.com/docview/219401658?pq-origsite=gscholar

McGovern, G. (1977). Dietary goals for the United States. *Washington, DC: US Government Printing Office*.

Michaud, D., Liu, S., Giovannucci, E., Willett, W., Colditz, G., Fuchs, C. (2002). Dietary Sugar, Glycemic Load, and Pancreatic Cancer Risk in a Prospective Study. Journal of the National Cancer Institute. Retrieved from https://academic.oup.com/jnci/article/94/17/1293/2519872/Dietary-Sugar-Glycemic-Load-and-Pancreatic-Cancer

Novas, C. and Rose, N. (2000). Genetic risk and the birth of the somatic individual. *Economy and Society, 29*(4), 485-513. doi: 10.1080/03085140050174750

Quanhe, Y., Zhang, Z., Gregg, E., Flanders, D., Merritt, R., Hu, F. (2014). Added Sugar Intake and Cardiovascular Diseases Mortality Among US Adults. *American Medical Association*. Retrieved from https://mail.google.com/mail/u/0/#inbox/15b876a57f16a9b1?projector=1

The Regents of the University of California. (2017). UCSF Profiles: Robert Lustig, MD. Retrieved March 23, 2017, from http://profiles.ucsf.edu/robert.lustig

Rose, Nikolas. (2001). Theory, Culture & Society. *The Politics of Life Itself*, *Vol. 18* (6), 1-30.

Slattery, M., Benson, J., Berry, T., Duncan, D., Edwards, S., Caan, B., Potter, J. (1997). Dietary sugar and colon cancer. Cancer Epidemiology, Biomarkers & Prevention. *American Association for Cancer Research*. Retrieved from http://cebp.aacrjournals.org/content/6/9/677.short

Soechtig, Stephanie; Olson, Sarah; Marson, Eve; Lazure, Kristin; Gibson, Sarah; Couric, Katie (Producers), & Soechtig, Stephanie (Director). (2014). *Fed Up* [Motion picture]. United States: Atlas Films.

Stanhope, K., Schwarz, J., Havel, P. (2013). Adverse metabolic effects of dietary fructose: Results from recent epidemiological, clinical, and mechanistic studies. *National Institutes of Health.* Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4251462/

Taubes, Gary. (2011). Is Sugar Toxic?. *The New York Times Magazine*. Retrieved from http://www.nytimes.com/2011/04/17/magazine/mag-17Sugar-t.html?_r=0

Thanem, T. (2009) 'There's no limit to how much you can consume': the New Public Health and the struggle to manage healthy bodies, Culture and Organization, 15:1, 59-74, DOI: 10.1080/14759550802709558

Wendel, B., Fulkerson, L., Corry, J., & Boon, A. (Directors). (2011). Forks Over Knives [Video file]. Retrieved March 21, 2017, from https://www.forsoverknives.com/

Wolfson, M., (Director). (2011). Vegucated [Video file]. Retrieved March 21, 2017, from www.getvegucated.com

Xiang, G., Qi, L., Qiao, N., Choi, H., Curhan, G., Tucker, K., Ascherio, A. (2007). Intake of Added Sugar and Sugar-Sweetened Drink and Serum Uric Acid Concentration in US Men and Women. *American Heart Association.* Retrieved from http://hyper.ahajournals.org/content/50/2/306.short

Zhang, Z, Gillespie, C., Hu, F., Yang, Q. (2014) Added Sugar Intake and Lipids Profile Among US Adolescents: NHANES 2005-2010. *American Heart Association*. Retrieved from http://circ.ahajournals.org/content/129/Suppl_1/A39.short