
III. PHILOSOPHY OF MEDICINE

Dichotomous Food-Drug Interpretations in Nutritional Science and Western Medicine

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Abstract

In this paper, I identify and examine various interpretations of the food-drug relationship within nutritional science and Western medicine that I classify as “dichotomous.” I argue that there are detectable patterns of interpretation within nutritional science and Western medicine that resemble one another to the extent that they ought to be considered as part of a cluster of dichotomous interpretations. Applying the concept of hermeneutic circle, I illustrate the ways in which these interpretations both influence and are influenced by experiences of edible things as foods or drugs. Further, these experiences serve to reinforce or challenge prejudices regarding the relationship between the ontological categories of “food” and “drug.” To illustrate this point, I discuss the role of dichotomous food-drug interpretations in undergirding skepticism regarding the possibility of food addiction and the legitimacy of continuum-based knowledge systems such as Ayurvedic medicine.

Keywords: Philosophy of food; philosophy of medicine; hermeneutics; biomedical ontology; drug

1. Introduction

In this paper, I identify and examine various interpretations of the food-drug relationship within nutritional science and Western medicine that I classify as “dichotomous.” I argue that there are detectable patterns of interpretation within nutritional science and Western medicine that resemble one another to the extent that they ought to be considered as part of a cluster of dichotomous interpretations. Applying the concept of hermeneutic circle, I illustrate the ways in which these interpretations both influence and are influenced by experiences of edible things as

foods or drugs. Further, these experiences serve to reinforce or challenge prejudices regarding the relationship between the ontological categories of “food” and “drug.”

Many of the dichotomous interpretations discussed below (unless noted otherwise) endorse a reductive, biochemical understanding of addiction, recognizing “an underlying biopsychological process that addictive disorders are hypothesized to share.”¹ On those views, if food consumption does not involve those same biopsychological processes, then food is not addictive. This, in turn, reinforces a dichotomous interpretation of the food-drug relationship on which drugs are potentially addictive, while food is not.

While some dichotomous interpretations tend toward reductivism, not all reductive ontologies are dichotomous. I do not claim that there is any necessary connection between reductivism and dichotomous interpretations or that either of these is inherently problematic. Rather, my occasional references to reductivism and holism provide a more fine-grained understanding of the nuances of different interpretations and their relationships with one another.

2. Ontology in the Philosophies of Medicine and Food: A Brief Overview

Among the ontological issues within the philosophy of medicine, the nature of disease has perhaps received the most attention. What is a disease, and what do people mean when they employ this term? Furthermore, how should the concept of disease be distinguished from the concept of health? As Jeremy R. Simon asks, “are [diseases] real entities or not, and, whether real or not, what exactly are they?”² Simon goes on to examine and assess a variety of views on the ontology of disease. Potential realist positions on disease include (1) the view that diseases are separate entities from diseased persons, (2) that they are “bundles” of signs and symptoms, (3) that they are “states” of the body, and (4) that

¹ Aviel Goodman, “Neurobiology of Addiction: An Integrative Review,” *Biochemical Pharmacology* 75 (2008): 266.

² Jeremy R. Simon, “Medical Ontology,” in *Philosophy of Medicine*, ed. Fred Gifford (Oxford: North Holland, 2011), 65.

they are bodily processes.³ Realists have defended the existence of diseases by reference to the success of treatments based on the use of categories of disease. Anti-realists, on the other hand, have claimed that diagnostic methods are often purely pragmatic. While diagnosing a patient as having a particular disease works in terms of allowing successful treatment, this is not necessarily indicative of diseases as extant entities.⁴ “Useful” explanations do not equate to “true” explanations on this view.

In her book *The Body Multiple: Ontology in Medical Practice*, Annemarie Mol emphasizes the importance of evaluating multiple ontological perspectives within the medical field. Rather than there being a single, ready-made ontology that is simply given to us,

ontologies are brought into being, sustained, or allowed to wither away in common, day-to-day, sociomaterial practices. Medical practices among them. Investigating and questioning ontologies are therefore not old-fashioned philosophical pastimes, to be relegated to those who write nineteenth-century history. Ontologies are, instead, highly topical matters. They inform and are informed by our bodies, the organization of our health care systems, the rhythms and pains of our diseases, and the shape of our technologies. All of these, all at once, all intertwined, all in tension. If reality is multiple, it is also political.⁵

Mol enumerates various components of clinical practice which one can view through multiple ontological frameworks. The very possibility of multiple ways of understanding what something *is* underscores the need to describe and assess different ontological schema.

Here, I would like to add another important component of medical practice not mentioned by Mol, and one that is largely absent within the philosophy of medicine: the ontology of medicinal substances. While scholars and practitioners have developed and applied philosophical examinations of views on the patient, the body, disease, health, and the institutional structures of Western medical practice, very little philosophical work has been done on the nature of medicinal substances.

Medical practitioners and information technologists sometimes employ the phrases “drug ontology” or “pharmaceutical ontology” to refer to a

³ Ibid., 69.

⁴ Ibid., 97.

⁵ Annemarie Mol, *The Body Multiple: Ontology in Medical Practice* (Durham: Duke University Press, 2002), 6-7.

semantic network of information on topics such as drug uses, interactions, and chemical relationships with other drugs. In opposition to static, single-perspective taxonomies, ontologies synthesize information from multiple perspectives and connect concepts with one another across a variety of contexts.⁶ Drug ontologies are one of many emerging categories of biomedical ontologies, and serve a variety of functions in medicine and business such as overcoming information overload in pharmaceutical research,⁷ assisting physicians and pharmacists in making decisions regarding drug prescriptions,⁸ and identifying opportunities for pharmaceutical companies to in-license products from other companies.⁹

What does it mean to say that a particular substance is a drug? While the aims of drug ontologies (in the above sense) are not explicitly philosophical, programmers must make decisions regarding the specification of terms and related concepts. For example, when creating the drug ontology “DrOn,” Hogan *et al.* defined drugs as “material entities with a special purpose: not every tablet or ointment is a drug. Drugs are used in medicine to diagnose, prevent, treat, and/or study disease.”¹⁰ While the authors use the phrase “drug product” to reference “the output of a production process,”¹¹ technical work on drug ontologies leaves open larger philosophical questions such as: Must a substance be synthesized from natural components to be a drug or can other substances such as foods also be appropriately counted as drugs? Need food and drug be seen as two separate kinds? What are the different ways of viewing the relationship between these categories and what are the vir-

⁶ Stephen P. Gardner, “Ontologies — Semantic networks of pharmaceutical knowledge,” *Drug Discovery World*, accessed November 9, 2019, <https://www.ddw-online.com/informatics/p148342-ontologies-semantic-networks-of-pharmaceutical-knowledge.html>.

⁷ Daniel L. Rubin, Nigam H. Shah, and Natalya F. Noy, “Biomedical ontologies: a functional perspective,” *Briefings in Bioinformatics* 9, n. 1 (2007): 87.

⁸ C. Broverman, J. Kapusnik-Uner, J. Shalaby, and D. Sperzel, “A concept-based medication vocabulary: an essential requirement for pharmacy decision support,” *Pharmacy Practice Management Quarterly* 18, n. 1 (1998): 1.

⁹ Gardner, “Ontologies.”

¹⁰ William R. Hogan, Josh Hanna, Eric Joseph, and Mathias Brochhausen, “Towards a Consistent and Scientifically Accurate Drug Ontology,” *CEUR Workshop Proceedings* (2013): 69.

¹¹ *Ibid.*

tues and vices of these perspectives? In the present work, I hope to shed some light on possible answers to these questions.

Despite the extensive amount of research and argument on various topics under the purview of food ethics, philosophers have devoted comparatively little attention to ontological issues related to food. In Lisa Heldke's article "An Alternative Ontology of Food: Beyond Meataphysics," Heldke advocates for a nuanced approach to food ethics by problematizing the absolutist tendency of viewing particular foods as "unambiguously" good or bad.¹² This tendency, Heldke argues, can lead to people rendering both violence and compassion invisible in cases that are more complicated than they often acknowledge. Heldke uses examples of food ethics scenarios that people typically take to be absolutely acceptable or reprehensible, drawing out the complex relations that are involved in food production. For example, even vegetables grown in a home garden are still connected in some way to the perpetuation of violence within larger food systems and the world if they rely on pesticides and plant food.¹³

Heldke elaborates on the relationship between metaphysics and ethics by arguing in favor of an alternative ontology of food: the interpretation of foods as "loci of relations" through which we can gain insight into the complex processes and practices involved in food production.¹⁴ This would allow for people to make food choices based on whether the relationships that constitute a particular food are morally acceptable, rather than simply determining what category of substance a food is a member of, and plugging that knowledge into a ready-made equation (e.g., "meat = bad, non-meat = good"). An ontology of relations does appear to more accurately capture the complex nature of food, though it also entails some sacrifice of the simplicity and ease which can be afforded by ethical frameworks undergirded by substance ontologies.

In his article "What is a Recipe?" Andrea Borghini considers realist, constructivist, existentialist, and naive approaches regarding the nature of recipes before settling on the constructivist account. An important question that he raises here is whether or not the identity of a recipe depends on the presence of specific ingredients and the implementation of specific

¹² Lisa Heldke, "An Alternative Ontology of Food: Beyond Meataphysics," *Radical Philosophy Review* 15, n. 1 (2012): 67.

¹³ *Ibid.*, 71.

¹⁴ *Ibid.*, 67.

methods of preparation. A “hard-core realist” account, for example, would require these things for a given dish to count as an instantiation of a particular recipe.¹⁵ However, there are also a number of cases where a recipe’s ingredients and procedures change over time, sometimes out of necessity. For example, synthetic rubber bases, rather than chicle, are typically used in the production of chewing gum. Whipped cream is often made using a mixer instead of being crafted by hand.¹⁶ In these cases, it still seems possible for the recipe to be instantiated, despite changes regarding the presence of particular ingredients and procedures. Borghini argues that the identity of recipes require a performative utterance by the cook (e.g., “This is falafel”), and that this utterance must also be tempered by acquaintance and apprenticeship regarding other dishes that instantiate the recipe.¹⁷ The identity of recipes, on this view, also rests on authenticity and the recognition of recipes as open-ended or subject to spatio-temporal change.¹⁸ Through his work, Borghini emerges with a constructivist theory of food identity and recipes that takes into account the possibility of change over space and time, as well as the importance of collective judgment and culinary experience, while also leaving open the possibility that not all foods will adequately count as authentic, and not all dishes will be proper instantiations of particular recipes.

In the introduction to his edited volume *The Philosophy of Food*, David M. Kaplan makes a compelling case for the exploration of food metaphysics while sketching out some conceptual terrain related to interpretations of food and drugs:

We presuppose some conception — however vague — of what food is whenever we eat or identify something as food. Different conceptions can have real consequences for our health, the environment, and the economy. Metaphysics makes these implicit assumptions explicit by examining the very notion of what food is and what property or properties make something food. The answers to questions concerning the nature of food are not at all obvious. Nor are the answers to other metaphysical questions about the difference between natural and artificial food, the identity of food over

¹⁵ Andrea Borghini, “What Is a Recipe?,” *Journal of Agricultural and Environmental Ethics* 28 (2015): 723.

¹⁶ Ibid., 724.

¹⁷ Ibid., 719.

¹⁸ Ibid., 736.

time (from raw to cooked to spoiled), the difference between food and an animal, or the difference between food and other edible things (such as water, minerals, or drugs).¹⁹

Our presuppositions about what food *is* directly impact our food ethics. Yet, as Kaplan discusses above, answers to questions regarding the nature of food and how (or whether) food is distinct from other edible things are not obvious. One of the categories of edible things that Kaplan includes in his discussion is “drugs.” It is within this intellectual space of edible things that I situate this paper and undertake a philosophical examination of the food-drug relationship within nutritional science and Western medicine.

3. Clusters of Interpretations: Justification and Caveats

I organize interpretations of the food-drug relationship into two clusters which I term “dichotomous” and “continuum-based.” Before proceeding, it is important to note my justification and caveats for this organizational schema.

My justification for organizing food-drug interpretations into two main clusters is that members of each cluster exhibit sufficient similarities such that I have found it useful to evaluate them as a group. While there is sometimes major variation in theoretical, historical, and cultural context regarding the worldviews in which particular interpretations are embedded, there are also relevant commonalities among these interpretations that I am able to illuminate by considering them in tandem. My reflection on these commonalities has influenced my strategy of grouping them into clusters of interpretations as well as choosing the aforementioned names that I use to designate these two clusters from one another. Specifically, “dichotomous” interpretations exhibit a tendency to interpret the categories of food and drug as existing in a dichotomous relationship with one another, such that people utilizing this approach (consciously or not) also tend to interpret individual edible things as either food or drug. In contrast, “continuum-based” interpretations exhibit a tendency to interpret the categories of food and drug as lying on a continuum or spectrum, rather than existing as separate ontological categories. People utilizing this ap-

¹⁹ David M. Kaplan, “Introduction: The Philosophy of Food,” in *The Philosophy of Food*, ed. David M. Kaplan (Berkeley: University of California Press, 2012), 3.

proach tend to interpret individual edible things as lying somewhere on a food-drug continuum, acknowledging that some things may be closer to one end of the continuum than another.²⁰

These characterizations of dichotomous and continuum-based interpretations are structurally similar, evincing the hermeneutic nature of experience in general, and of the conceptualization and experience of edible things in particular. Our way of understanding the relationship between the general concepts or categories of food and drug influences our experiences of particular edible things as either food or drug, or as lying on a food-drug continuum. Furthermore, exemplifying the dynamic relationship between parts and wholes in shaping our understanding, our experiences of particular edible things in turn influence our general conceptual perspective on the relationship between the categories of food and drug. Prejudices of various sorts inflect this part-whole relationship, and our understanding of the way that food and drugs relate to one another is both historically-effected and open to change over time in light of new experiences and ways of thinking. Thus, the two clusters of interpretations that I identify and examine are not rigid, exhaustive divisions, but are instead permeable, practical distinctions.

There are also some important caveats to keep in mind regarding this strategic distinction. First, while it is useful and illuminating to distinguish these two clusters of interpretations, it is also important to resist collapsing the different interpretations within each cluster into a single perspective. As mentioned above, each particular way of interpreting is uniquely situated, and the reader should keep this in mind while also being open to the commonalities among interpretations.

Second, in focusing on a particular interpretive mode within a given field (e.g., a reductive approach within nutritional science), I do not mean to imply that this is the only or even the dominant way of understanding the food-drug relationship within that field. In fact, part of my aim in describing

²⁰ In articulating the basic characteristics of dichotomous and continuum-based approaches, I refer to “people utilizing” these approaches rather than “proponents” or “apologists” of these approaches to indicate that many people operate within these interpretive modes without conscious awareness that they are doing so. Indeed, a central goal of this project is to uncover and present these ways of seeing *as* interpretive modes that are open to philosophical examination and critique.

and examining various dichotomous and continuum-based interpretations is to open pre-existing debates to philosophical reflection. These debates are rooted in philosophical questions regarding what food and drugs *are*, the various ways that the food-drug relationship can be interpreted, and the need for evaluating different interpretive modes to this end.

4. Nutritionism and Functional Foods

Within the past decade or so, there has been a small but growing body of literature offering critical perspectives on ideology within the scientific study of food and nutrition, as well as assessments of technological advancements in food production and the incorporation of “extra” components within foods that are taken to have physiological or even medicinal benefits. In addition to theorizing about foods with these added components, scientists have also recently raised concerns that people may be miscategorizing unadulterated edible things as food, when perhaps they are actually drugs.

While scientists obviously acknowledge the addictive potential of many drugs, the possibility of food addiction has been a controversial and heavily debated topic in the nutritional sciences. These perspectives are largely predicated on a dichotomous interpretation of the food-drug relationship, whereby people interpret food and (edible) drugs as belonging to distinct ontological categories.

The philosopher and social theorist Gyorgy Scrinis coined the term “nutritionism” to refer to a reductive approach to food that has proliferated within Western nutritional science and which has been adopted by the food and diet industry to bolster often misleading and problematic marketing claims. Scrinis sees the rise of the production and marketing of products such as functional foods as one aspect of the larger trend that he refers to as the “medicalization” of food: “a pharmaceutical model in which direct and precise effects on particular bodily functions are attributed to single, isolated nutrients and food components.”²¹ While Scrinis traces the medicalization of food back to the nineteenth century, he argues that functional foods have led to a new iteration of this paradigm where scientists are now intentionally engineering foods to obtain particular

²¹ Gyorgy Scrinis, *Nutritionism: The Science and Politics of Dietary Advice* (New York: Columbia University Press, 2013), 197.

health benefits in tandem with food companies marketing those products as having benefits above and beyond the provision of nourishment.²²

Scrinis proceeds to critique the current perceptions and regulatory status of functional foods by questioning their alleged benefits, where people making and defending related health claims have merely extrapolated these from nutrients that they have analyzed in isolation from the whole foods to which they have been added.²³ While Scrinis makes a salient point in this regard, for the purposes of my project I discuss this example in order to consider the ontological perspective undergirding the very idea of functional foods and the related medicalization of food. The claim that food needs to be engineered to be appropriately considered medicinal rests on a dichotomous interpretation of the food-drug relationship. On this view, some foods may be healthier than others, but food “on its own,” so to speak, cannot be medicine.

Further, even when certain foods may be considered “naturally functional foods” (though Scrinis points out that such identification is less common than reference to nutritionally engineered foods as functional foods), the nutritionist ideology undergirding this label still implies that a so-called “natural” food is functional by virtue of specific isolated components that it happens to contain. That is, even in the absence of human engineering, people operating within this worldview are only interpreting foods as “medicalized” because they contain components that provide health benefits beyond the nourishment that one would expect from food in general. On this view, which is also ideologically connected to advocacy for and proliferation of dietary supplements, those components that people judge to be extra-beneficial or medicinal can be isolated, manufactured and sold separately as having health benefits that are not tied to their presence within food. Edible things cannot be both food and medicine. At best, food contains extractable medicinal components and can be intentionally engineered to contain such components.

Pre-empting Scrinis’ critical reflection on functional foods, Kaplan argues that a key concern about functional foods that deserves attention is that “their medicinal properties blur the boundaries between food and drugs.”²⁴ Adopting the term “medical foods,” Kaplan laments the lack of

²² Ibid.

²³ Ibid., 199.

²⁴ David M. Kaplan, “What’s Wrong with Functional Foods?” *Journal of*

regulatory oversight of these products, the absence of a clear method for regulatory bodies such as the FDA to legally distinguish “medical” from “functional” foods, and the unfair and unreasonable burden of proof which falls on consumers regarding the demonstration of product safety.²⁵ The nature of these regulatory bodies (in particular, Kaplan focuses on the FDA) plays a role in emerging concerns regarding the creation, distribution, and marketing of functional foods. Further, the very term “medical food” indicates a possible perspective on the relationship of food and medicine in cases in which food could not already be considered medical or medicinal in nature. A continuum-based interpretation of the food-drug relationship, on the other hand, may lead someone to claim that the term “medical food” is redundant, at least in certain cases.

The claim that functional foods blur the boundaries between food and medicine entails that there is already some sort of boundary *to be blurred* in the first place, not only legally but ontologically and conceptually as well. Given that people most often use the term “functional foods” to refer to foods that are engineered to contain particular beneficial components (rather than foods that “naturally” contain such components), even perspectives that view functional foods as calling into question the relationship between food and drug often assume that there is a historical separation between these categories which has now been problematized as a result of technological advancement. This dichotomous perspective on the food-drug relationship undergirds philosophical reflection on this topic, in addition to reflections from medical experts and practitioners. In their commentary “Functional foods — blurring the distinction between food and medicine,” Harri Vainio, MD, and nutritional physiologist Marja Mutanen write:

The difference between foods and medicines is becoming increasingly blurred. For thousands of years, food was fuel. It powered the manual labor that built the pyramids, laid railroads and constructed towns. But now, when we have learned more about the relationship between diet and health over the past 50 years, this traditional concept of food has tended to change. [...] Now, as we enter the new millennium, the foods of the future are emerging. Rather than taking out certain food ingredients, we are beginning to engineer such new foods or food components that would hopefully protect ourselves against disease. The main idea is that these new

Philosophical Research 32 (2007): 177.

²⁵ Ibid., 183.

products, sometimes called “functional foods,” will be powerful tools that consumers can use to safeguard themselves against disease.²⁶

While Vainio and Mutanen go on to express regulatory and efficacy-related concerns along the lines of those articulated by Scrinis and Kaplan, their commentary contains two fascinating presuppositions regarding the food-drug relationship that are worth articulating and examining.

First, their writing reflects a view according to which food and medicine have been distinct throughout the course of human history, until both ways of thinking and technologies have progressed to a point where we are now able to merge food and medicine. This does not necessarily entail that we can now consider the line between food and medicine to be “blurred” in an ontological sense; rather, the authors appear to imply that humans are now simply able to add medicinal components *to* food through a process of engineering, such that people can treat and prevent ailments by ingesting food infused with medicine. For example, the authors discuss margarine (most notably, the Finnish brand Benecol) that has been enriched with the steroid compounds phytosterol or phytostanol to maintain healthy cholesterol levels and reduce the risk of cardiovascular disease. While Vainio and Mutanen observe that “there are well-known ways of maintaining optimal cholesterol levels that do not require the purchase of specially fortified foods,” they subsequently remark that “natural ways of optimizing cholesterol are not the easiest, and some people feel that they are far too complicated. For this group, functional foods may provide a helping hand in the form of palatable, easy-to-use products.”²⁷

In trying to get clear on their view of the food-drug relationship, consider an analogous example: when people try to get their dogs or other companion animals to take medicine, they often resort to tactics such as wrapping prescription pills inside of sliced cheese or bread. Thus, food and drugs are combinable, and one could even say that drugs can be “hidden” in food. This interpretation does not entail that food and drugs are no longer ontologically distinct, but that we are now able to combine members of these two categories, facilitating the ingestion of medicine by treating food as a sort of conduit.

²⁶ Harri Vainio and Marja Mutanen, “Functional foods — blurring the distinction between food and medicine,” *Scandinavian Journal of Work, Environment & Health* 26 (2000): 178.

²⁷ *Ibid.*, 179.

Vainio and Mutanen claim that “[f]or thousands of years, food was fuel.”²⁸ While people no doubt looked to food and eating as a necessary way of supplying energy to the body for the sake of activities such as manual labor, the authors make sweeping generalizations in implying that this is what food *was* for all peoples, and that this is the only or central way in which people interpreted (or should have interpreted) food prior to the emergence of functional foods. Food has been something more than fuel (e.g., medicine, intoxicant, aphrodisiac, a source of pleasure, a source of meaning) for many groups of people throughout history, and people today continue to have other reasons for seeing food as drugs without needing to refer to functional foods and the technological advancements that make their existence possible. Thus, this interpretation of food as “fuel” or “nourishment” is one of multiple ways of understanding what food *is*. I am not arguing for the outright rejection of the view that food is only or chiefly fuel, but rather encouraging openness to alternate possibilities regarding food-drug interpretations.

5. Concerns Regarding the Miscategorization of Food and Drugs

In addition to the tendency of debates and perspectives in nutritional science on the nature of functional foods to evince underlying dichotomous interpretations of the food-drug relationship, some concerns regarding the way that other edible things are (or should be) classified also indicate a predilection for the view that food and drugs exist in a dichotomous relation to one another. Some recent work implies the possibility that there are certain edible things which may be better classified as a drug rather than as a food. These views are influenced by the current controversy regarding whether or not food can legitimately be said to be addictive in the same way as drugs.

Chocolate is a prime example of an edible thing which some have speculated may be better classified as a drug than as a food. Ronald Ruden, MD and freelance writer Marcia Byalic begin their book *The Craving Brain* with the provocative and subtle suggestion that chocolate is one more illicit drug among others: “‘Gotta have it’ is the driving thought of an addict. [...] A drink, a drag, a hit, a line, a pill, another

²⁸ Ibid., 178.

piece of chocolate.”²⁹ In the *Journal of the American Dietetic Association*, Kristen Bruinsma and Douglas L. Taren also adopt this quote from Ruden and Byalic as the opening line for their article “Chocolate: Food or Drug?” Bruinsma and Taren speculate briefly on the potentially problematic boundary between food and drugs, raising the question “Can chocolate be classified as a drug?” and providing some intriguing evidence to substantiate this possibility.³⁰

One empirical observation in support of the reclassification of chocolate as a drug is that it contains phenylethylamine, a compound which is structurally and pharmacologically analogous to amphetamines, including 3,4-Methylenedioxymethamphetamine (MDMA), the central active compound in the street drug known as “ecstasy” or “molly.”³¹ Chocolate also contains the stimulants caffeine and theobromine, as well as lipoproteins which work on the brain’s cannabinoid receptors, “mimicking the psychoactive effects of cannabinoid drugs such as heightened sensitivity and euphoria.”³² Human subjects research on the effect of chocolate consumption in curbing cravings has also yielded notable results. For instance, while many subjects have reported that they can curb cravings for “sweets” through the consumption of other high-carbohydrate foods such as bread and potatoes, people were unable to curb specific cravings for chocolate in the same way.³³ Studies in this area indicate that the potentially addictive properties of chocolate and the inability to curb chocolate cravings through the consumption of other foods may set this substance apart in a way that renders it more similar to a drug. Finally, aside from entertaining the possibility of seeing chocolate as a drug in the illicit/addictive sense, Bruinsma and Taren also draw on studies that show the potential for chocolate to be used for the purposes of what they refer to as “self-medication,” particularly re-

²⁹ Ronald Ruden and Marcia Byalic, *The Craving Brain* (New York: Harper-Collins, 2000), 1.

³⁰ Kristen Bruinsma and Douglas L. Taren, “Chocolate: Food or Drug?” *Journal of the American Dietetic Association* 99 (1999): 1249.

³¹ *Ibid.*, 1251-52.

³² *Ibid.*, 1252.

³³ Judith Rodin, Joan Mancuso, Jennifer Granger, and Edward Nelbach, “Food cravings in relation to body mass index, restraint and estradiol levels: a repeated measures study in healthy women,” *Appetite* 17 (1991): 177-85.

garding the treatment of magnesium and serotonin deficiencies.³⁴

While Bruinsma and Taren's work raises interesting ontological and hermeneutic issues, the authors themselves do not anticipate and reflect on the philosophical underpinnings of their own views. The authors' framing of their project does, however, indicate that they are operating within an interpretive mode that presumes a dichotomous relationship between the general categories of food and drug. From here, the question is raised in the examination of chocolate as a kind of edible thing: is it a food or is it a drug? What the authors are not bringing to the foreground of their research (though the question does appear to lurk beneath their empirical observations) is that this is an ontological question, and a question about the appropriate interpretation of chocolate for clinical and health-related purposes. Specifically, which of these is the category within which chocolate truly fits? This perspective assumes a dichotomous relationship between the categories of food and drug.

Other recent work in nutrition and medicine also reflects and reproduces dichotomous interpretations of the food-drug relationship. For instance, in their article "Phytoestrogens: food or drug?" Lucia Bacciotini *et al.* take a pharmacological approach to examining and reporting on effects of consuming phytoestrogens. Phytoestrogens are natural estrogen molecules found in a variety of fruits and vegetables.³⁵ Recent studies have indicated an association between phytoestrogen consumption (which includes the molecular categories of flavonoids, lignans, coumestans, and stilbenes) and numerous health benefits, including increased cardiovascular health, cancer prevention, alleviation of menopausal symptoms, and improvements in cognitive function.³⁶ This data suggests that foods high in phytoestrogen should be considered health foods and that scientists should be pushed "to isolate the active molecules to be used as new potential drugs."³⁷

The authors' language further signals the extent to which dichotomous interpretations of the food-drug relationship have been embedded

³⁴ Bruinsma and Taren, "Chocolate," 1253.

³⁵ Lucia Bacciotini, Alberto Falchetti, Barbara Pampaloni, Elisa Bartolini, Anna Maria Carossino, and Maria Luisa Brandi, "Phytoestrogens: food or drug?" *Clinical Cases in Mineral and Bone Metabolism* 4 (2007): 123-4.

³⁶ *Ibid.*, 126.

³⁷ *Ibid.*, 129.

in contemporary scientific discourse. Rather than interpreting the phytoestrogen-containing foods themselves as lying along a food-drug continuum, Bacciotini *et al.* latently embrace the view that specific components within foods can (and should) be isolated from their nutritional context and synthesized. Thus, such components should be seen as drugs after undergoing these processes, but the whole edible thing of which the component is a part should be seen as food on this view.

6. Food Addiction Controversy in Nutritional Science

The debate over whether food is addictive and whether “food addiction” is a legitimate medical condition is informed by underlying hermeneutic commitments regarding the nature of the food-drug relationship. Those who view the food-drug relationship as dichotomous also tend to hold the view that the category of “food” does not contain edible things that have the property of being addictive. Drugs can potentially be addictive and addictive potential is seen as a distinguishing feature of many drugs. In contrast, those who hold that food, or at least some foods, can be addictive appear to base this perspective on an interpretation of the food-drug relationship as continuum-based. Indeed, as Marcia Pelchat observes in the *Journal of Nutrition*, “Most of the evidence for or against food addiction in humans focuses on similarities between food craving and drug craving.”³⁸ Debates over the possibility and implications of food addiction are taking place within and across disciplines. Clearly, discussion and research on this issue is vital for the future of nutritional science, as the addictive potential of food could necessitate the rethinking of key concepts such as health and safety in the context of dietary choice.

Advancing research on the food addiction debate, Rebecca L. Corwin and Patricia S. Grigson present an overview of recent contributions to this topic within nutritional science. Corwin and Grigson advance the view that certain highly palatable foods, while not addictive *per se*, can *become* addictive due to patterns of consumption.³⁹ This leaves open

³⁸ Marcia Levin Pelchat, “Food Addiction in Humans,” *The Journal of Nutrition* 139 (2009): 620.

³⁹ Rebecca L. Corwin and Patricia S. Grigson, “Symposium Overview — Food Addiction: Fact or Fiction?” *The Journal of Nutrition* 139 (2009): 617.

the possibility that edible things need not be interpreted in a specific way (e.g., interpreted as strictly addictive or non-addictive; *or* interpreted as strictly a food or drug) in *all* contexts, and that more or less appropriate interpretations are context-specific, rather than being strictly dependent on the presence or absence of particular intrinsic properties.

In reflecting on the “pervasive, yet controversial” concept of food addiction, Corwin and Grigson provide a brief but insightful summation of the basis of some skepticism regarding the plausibility of the concept. One problem with making a scientifically rigorous determination of the addictive properties of foods is that “everyone eats. How can a label of ‘addictive’ be applied to that which supports life itself?”⁴⁰ This concern is rooted in a perspective according to which foods are simply food, drugs are simply drugs, and never the twain shall meet. The authors’ worry can be clarified by examining it in the form of a *modus ponens* argument: If something is essential for sustaining life, then this at least casts doubt on the possibility that it could be addictive. Food is essential for sustaining life, thus it is at least doubtful that it could be addictive. On such a view, one could only become addicted to something which is not required for survival. People who hold this view, then, interpret drugs as being inessential for the support of life, and this perspective is accompanied by the acceptance of the addictive potential of at least some drugs. Corwin and Grigson’s work is relevant for the current discussion due to the rhetoric that they employ in assessing the concept of “food addiction.” The authors propose that “some foods are more addictive than others, especially foods rich in fat and/or sugar.”⁴¹ However, the authors distance themselves from the view that food (including high-fat and high-sugar foods) could be addictive based on the presence of intrinsic properties of the food itself. Rather, according to Corwin and Grigson, “these foods [...] are not addictive, *per se*, but become so following a restriction/binge pattern of consumption.”⁴²

While this could be defended as a legitimate perspective on the nature of addiction (i.e., that food or other edible things can become addictive based on patterns of consumption), the rhetoric that the authors utilize to further describe and defend their approach tends to insinuate that

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Ibid.

they do not take food to be *really* addictive because (according to the authors) it is not *intrinsically* addictive. Corwin and Grigson argue that “even highly palatable food is not addictive in and of itself,” and that “it is the manner in which the food is presented (i.e., intermittently) and consumed (i.e., repeated, intermittent ‘gorging’) that appears to entrain the addiction-like process.”⁴³ The authors’ treatment of food addiction as a phenomenon that is really only “like” or “similar to” actual addiction further illustrates the pervasiveness of dichotomous interpretations of the food-drug distinction within the academic and scientific discourse. On this view, ingestible things that are truly addictive are addictive “in and of themselves.” Drugs and food are differentiated from one another based on the intrinsic addictive potential of drugs, and food is only interpreted as addictive in a loose, metaphorical sense.

People often refer to a food as “addictive” when they really enjoy it and would like to continue eating it, especially when it elicits a craving that makes it difficult for the eater to cease consumption. Restaurants and snack brands have long capitalized on and satirized the possibility of food addiction for marketing purposes. One example is the Michigan chain HopCat’s famous “crack fries,” which were recently renamed “cosmic fries” after critiques that the restaurant was making light of drug addiction.⁴⁴ On a dichotomous approach to the food-drug relationship, whereby drugs are further interpreted as potentially addictive and food is interpreted as non-addictive due to its role in sustaining life, the concept of an “addictive food” is at best a potentially useful albeit inaccurate analogy and, at worst, it is misleading and comes into contradiction with the nature of food itself.

7. Dichotomous Food-Drug Interpretations in Western Medicine

There are identifiable dominant trends in medical thought and practice that presuppose a substantive divide between the categories of food and drug. My support for this claim focuses on Western medicine’s recent

⁴³ Ibid., italics mine.

⁴⁴ Melody Baetens, “HopCat announces new name for controversial ‘crack fries,’” *The Detroit News*, January 14, 2019, <https://www.detroitnews.com/story/entertainment/dining/2019/01/14/hopcat-new-name-controversial-crack-fries/2574177002/>.

turn to privileging anthropogenic synthetic substances as medicinal drugs, while not considering substances interpreted as food to also count as drugs, even in cases involving synthetic medicinal drugs that were originally derived from plant (or animal) materials.

While the possibility that some food can also appropriately be interpreted and used as medicine is generally considered a “fringe” idea within Western medicine, this consideration itself is also a product of history, and there was a time before the denigration of the concept of “medicinal food” was widely accepted. As Jin-Ming Kong *et al.* observes, “[f]or centuries, medicine in the West meant herbal medicine.”⁴⁵ The Western use of plants as medicine can be traced at least as far back as Hippocrates (460-377 BC). Use of “traditional plant drugs” as part of Chinese and other Indigenous medical systems pre-dates Hippocratic medicine by thousands of years and remains an important part of these and other approaches to health today.

According to Kong *et al.*, “[d]uring the eighteenth century, as scientific knowledge progressed, a dichotomy in medicine developed between practitioners of herbal medicine and regular physicians.”⁴⁶ It is worth pausing briefly to consider the specific language employed here by Kong *et al.* The historical development of this “dichotomy in medicine” maps on to the relationship between “continuum-based” and “dichotomous” food-drug interpretations. On one side of this dichotomy in medicine are those who engage in the interpretation and utilization of at least some foods (e.g., particular plants) as medicines, who do not interpret “food” and “drug” as discrete ontological categories, and who subsequently do not interpret edible things disjunctively, as either food or drugs. On the other side of this dichotomy are those who *do* see these categories as fundamentally separate, especially given the emergence and proliferation of pharmaceutical chemistry in the 19th century. Early examples of the new drugs developed during this period include the isolation of morphine from opium poppies and the isolation of salicylic acid from various plants such as the willow tree.⁴⁷

⁴⁵ Jin-Ming Kong, Ngoh-Khang Goh, Lian-Sai Chia, and Tet-Fatt Chia, “Recent advances in traditional plant drugs and orchids,” *Acta Pharmalogica Sinica* 24 (2003): 8.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*

Nutritionist ideology is closely connected with a dichotomous approach to the food-drug relationship, especially the nutritionist view that edible things are best understood in terms of their component parts. On this view, plants and other foods may contain what we could refer to as “proto-drug” compounds, which must be isolated and synthesized to create true “drugs,” whereas whole plants are interpreted as folk remedies. Whereas not a necessary consequence of dichotomous interpretations, this way of thinking allows for the possibility of delegitimizing continuum-based knowledge systems. Advocates of dichotomous interpretations to the food-drug relationship sometimes consider traditions such as Ayurvedic medicine as part of a larger category of “alternative medicine.” By contrast, contemporary Western medicine is considered the default standard of medical knowledge. In a sense, “medicine” just *is* “Western medicine” on this view, and any other approach is either inefficacious or has not yet been subsumed within the category of medicine (i.e., not enough legitimate scientific research has confirmed its efficacy), a decision that must be made by the scientific/medical community (evoking Kong *et al.*’s discussion of “regular physicians”). In the context of veterinary medical practice, veterinarian David Ramey and philosopher Bernard Rollin write:

Science-based medicine is not the only possible model available to veterinary practitioners. However, we believe it is the only possible model that preserves the unique, protected, licensed, and privileged position of veterinary professionals, because science appears to be the only objective source of knowledge that is acknowledged by virtually all elements of society [...]. It is not necessarily the case that alternative therapies have no value; neither is it the case that established treatments are always perfect or that science is infallible. Yet, to abandon scientific validation as the gold standard of therapeutic efficacy is to invite chaos.⁴⁸

This quote illustrates both the conditional openness and epistemic prejudice of Western medicine, wherein there is a monolithic standard of what counts as “proof” and wherein “chaos” is the alternative to honoring this standard.

It is worth noting that this stance on the need for evidence-based gatekeeping often stems from a genuine concern for safety and efficacy.

⁴⁸ David W. Ramey and Bernard E. Rollin, “Ethical aspects of proof and ‘alternative’ therapies,” *Journal of the American Veterinary Medical Association* 218 (2000): 344, 345-346.

To be sure, there is good reason behind the endurance of the phrase *caveat emptor* in the context of health and healing, and there is a long history of fraud and peddlers of phony “snake oil” panaceas. The very concept of “quackery” already implies a mastery of deception, of crafting and hoisting a hermeneutic lens onto the patient/spectator through which they interpret innocuous (or worse, harmful) substances as drugs. Characterizing the perspective of the twentieth-century antiquackery crusader Dr. Arthur J. Cramp, medical historian Eric Boyle writes: “The quack claimed to cure diseases he simply could not. He lied about the contents of the remedy he promoted. He made promises that could not be kept.”⁴⁹ One of the most recent examples of this interpretive distortion is the emergence and promotion of pills that purport to provide UV protection equivalent to lotion-based sunscreen. The FDA addressed the public on this issue in a May 2018 statement:

Today we sent warning letters to companies illegally marketing pills and capsules labeled as dietary supplements that make unproven drug claims about protecting consumers from the harms that come from sun exposure without meeting the FDA’s standards for safety and effectiveness. These companies [...] are putting people’s health at risk by giving consumers a false sense of security that a dietary supplement could prevent sunburn, reduce early skin aging caused by the sun, or protect from the risks of skin cancer.⁵⁰

There is just cause for the exercise of caution and careful verification and consideration in admitting something as a member of the category of drugs and endorsing related interpretations of that thing. This point should not be hastily minimized, because public health and well-being are at stake, as well as public trust in the state’s concern for its interests. Within an economic system that incentivizes exaggerating claims as far as legally possible (or beyond this, as in the case of the “sunscreen pills”) to sell more products and maximize profits, these

⁴⁹ Eric W. Boyle, *Quack Medicine: A History of Combating Health Fraud in Twentieth-Century America* (Santa Barbara: Praeger, 2013), xvi.

⁵⁰ Scott Gottlieb, “Statement from FDA Commissioner Scott Gottlieb, M.D., on new FDA actions to keep consumers safe from the harmful effects of sun exposure, and ensure the long-term safety and benefits of sunscreens,” *U.S. Food & Drug Administration*, May 22, 2018, <https://www.fda.gov/newsevents/newsroom/pressannouncements/ucm608499.htm>.

stakes are exponentially higher. This point not only applies generally to substances that are deceptively presented *as* drugs, but also more specifically to *foods* that are presented (deceptively or earnestly) as drugs.

8. Alternative Medicine and Skepticism of Non-Western Approaches

A critical approach regarding what should adequately count as a drug is key in justifying the employment of the concept “drug” at all, lest everything ingestible be interpreted as a drug, rendering the concept meaningless. Further motivation for some degree of strictness in ontological boundaries (i.e., between “drug” and “non-drug”) also lies in providing a corrective to incentivized deception and coercion. But this caution can be overdone as well, leading to too strong of a prejudice against differing interpretations. This prejudice is exacerbated when our interpretations become invisible to us. Instead of seeing our interpretations *as* interpretations, our tendencies are in the direction of assuming our experiences to accurately track real features of the world, that the world “as it is” is *given* or *present* to us, and that we can know that it is given to us. When we fail to remind ourselves of the interpretive nature of experience, we not only run the risk of failing to see our own interpretations as interpretations, but we may also fail to see others’ interpretations as interpretations. We may fail to entertain the interpretive lenses of others as legitimate and possible ways of experiencing, understanding, and acting in the world, and which merit respect and consideration through dialogue. The idea that there is a single correct interpretation which must be imposed over all others, even when partially or largely rooted in a legitimate concern (e.g., for safety and efficacy of edible things marketed and sold as drugs), cannot be actualized without the silencing of other voices on this issue. In the context of enforcing strict boundaries around acceptable and unacceptable interpretations of something as a “drug” or “medicine,” this dogmatism may result in the uncritical delegitimation of other knowledge structures and interpretive modes.

Western medicine sometimes recognizes efficacious proto-medicines (e.g., plant compounds) and practices. However, even these are interpreted as yet-to-be part of the corpus of real medicine. The potential chaotic scenario that Ramey and Rollin anticipate in the previous section is one where “anything goes,” the free market determines the nature of medical practice, and “the public could be victimized by un-

founded exaggerated claims, glitzy advertising, anecdotes, and non-testable testimonials.”⁵¹ While caution is warranted, it is debatable whether a total *laissez faire* free-for-all is the only alternative to the domination of current mainstream Western medical perspectives.

Dichotomous interpretations of the food-drug relationship in Western medicine do not necessarily call for the outright rejection of any potential *usefulness* of foods or other “alternative” remedies, but they do often view these approaches with skepticism. All alternative medical practices certainly do not necessarily require a continuum-based approach to the food-drug relationship. However, Western medicine typically lumps in continuum-based interpretations from various traditions (e.g., Ayurveda and traditional Chinese medicine) in the large and nebulous category of “complementary and alternative medicine” (CAM).

Housed within the National Institutes of Health (NIH) is the National Center for Complementary and Integrative Health (NCCIH), whose goals include conducting research and disseminating “objective evidence-based information on complementary and integrative health interventions.”⁵² The center defines complementary and alternative approaches in negative terms, where complementary medicine is the use of “non-mainstream” practices *in addition to* “conventional medicine” and alternative medicine involves the use of non-mainstream practices *in place of* conventional medicine.⁵³ Integrative approaches involve the incorporation of conventional and complementary practices within mainstream health-care. Of importance here is the center’s statement that “NCCIH generally uses the term ‘complementary health approaches’ when we discuss practices and products of non-mainstream origin.”⁵⁴ Given the acceptance and championing of mainstream Western medical ideology, in emphasizing this language (rather than adopting, for instance, “alternative medicine” as the standard terminology) the NCCIH actively *de-emphasizes* the possibil-

⁵¹ Ramey and Rollin, “Ethical aspects of proof,” 344.

⁵² “NCCIH Facts-at-a-Glance and Mission,” *National Center for Complementary and Integrative Medicine*, last modified September 24, 2017, <https://nccih.nih.gov/about/ata glance>.

⁵³ “Complementary, Alternative, or Integrative Health: What’s In a Name?” *National Center for Complementary and Integrative Health*, last modified September 24, 2017, <https://nccih.nih.gov/health/integrative-health>.

⁵⁴ *Ibid.*

ity of adopting “non-mainstream” medical approaches *in place of* mainstream medicine. Recognizing this point helps to clarify the conceptual terrain of Western medicine and its current tendency toward dichotomous interpretations of the food-drug relationship.

As mentioned above, CAM is taken to consist of myriad forms of non-mainstream medicine, which the NCCIH divides into the two main categories of “natural products” and “mind or body practices.”⁵⁵ The category of natural products includes the use of food for medicinal purposes, and includes various products such as “herbs (also known as botanicals), vitamins and minerals, and probiotics.”⁵⁶ The NCCIH observes that “[r]esearchers have done large and rigorous studies on a few natural products, but the results often showed that the products didn’t work.”⁵⁷ Indeed, some companies may be ripping off consumers by making unverified claims about the efficacy of natural products.

This framing is echoed in the American Academy of Pain Medicine’s (AAPM) official position statement on complementary and alternative medicine, wherein the academy applies and interprets part of the American Medical Association’s *Code of Medical Ethics*: “it is unethical to engage in or to aid and abet in treatment which has no scientific basis and is dangerous, is calculated to deceive the patient by giving false hope, or which may cause the patient to delay in seeking proper care.”⁵⁸ In no place does the AAPM statement recommend further research on the potential efficacy of non-mainstream methods of pain management, instead focusing on expressions of concern.⁵⁹

A final example illustrating Western medicine’s tendency towards dichotomous interpretations of the food-drug relationship can be seen in the NCCIH’s dissemination of information on Ayurvedic medicine, a traditional form of medicine in India predicated on a continuum-based approach to the food-drug relationship, including the medicinal use of

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ “AAPM Position Statement on Complementary and Alternative Medicine,” *The American Academy of Pain Medicine*, accessed February 13, 2018, <http://www.painmed.org/files/aapm-position-statement-on-complementary-and-alternative-medicine.pdf>.

⁵⁹ Ibid.

plants such as ginger and turmeric root in treating inflammatory ailments. As evinced in the two “key points” of the NCCIH piece (quoted below), the mainstream Western medical perspective on Ayurveda is largely one of skepticism and concern:

• *Is Ayurvedic medicine safe?*

Ayurvedic medicine uses a variety of products and practices. Some of these products — which may contain herbs, minerals, or metals — may be *harmful, particularly if used improperly or without the direction of a trained practitioner*. For example, some herbs can cause side effects or interact with conventional medicines. Also, *ingesting some metals, such as lead, can be poisonous*.

• *Is Ayurvedic medicine effective?*

Studies have examined Ayurvedic medicine, including herbal products, for specific conditions. However, there are not enough well-controlled clinical trials and systematic research reviews — the gold standard for Western medical research — to prove that the approaches are beneficial.⁶⁰

The NCCIH frames its discussion of Ayurvedic medicine thus: if readers only take away the two most important points from this piece when learning about and considering Ayurveda, these points should be regarding the potential harms of this ancient knowledge tradition. Further, even in cases in which certain herbal products are potentially medicinal, these are considered under-researched within the mainstream medical and scientific communities.

Concern regarding certain iterations of Ayurvedic practice, or at least what is referred to as Ayurvedic practice, has some grounding in empirical data. A 2005 study of the components of USA- and Indian-made Ayurvedic medicine purchased on the internet found that one-fifth of the medicines analyzed contained detectable levels of lead, mercury, or arsenic.⁶¹ While apologists of Ayurveda have argued that the toxicity of some products is a result of a lack of supervision and flaws that can

⁶⁰ “Ayurvedic Medicine: In Depth,” *National Center for Complementary Health and Integrative Medicine*, last modified April 7, 2016, <https://nccih.nih.gov/health/ayurveda/introduction.htm#hed1>.

⁶¹ Robert B. Saper, Russell S. Phillips, Anusha Sehgal, Nadia Khouri, Roger B. Davis, Janet Paquin, Venkatesh Thuppil, and Stefanos N. Kales, “Lead, Mercury, and Arsenic in US- and Indian-Manufactured Ayurvedic Medicines Sold via the Internet,” *Journal of the American Medical Association* 300 (2008): 915.

be traced back to commercialization, medical doctor Robert M. Saper *et al.* claim that all of the metal-containing products in their study “exceeded 1 or more standards for acceptable daily metal intake,” and that “[s]everal Indian-manufactured [Ayurvedic] medicines could result in lead and/or mercury ingestions 100 to 10,000 times greater than acceptable limits.”⁶² In a recent article in the *Indian Journal of Gastroenterology*, Cyriac Abby Philips *et al.* note that “Ayurvedic and herbal medications (AHM) are known to cause varying degrees of liver injury that range from asymptomatic liver failure requiring liver transplantation. [...] Hepatotoxicity and heavy metal analysis of AHM have been shown in studies ranging from case reports to large patient series.”⁶³ The authors of this article end their discussion by calling for further regulation and supervision regarding Ayurvedic herbal medicine.

There is clearly some evidence for concern regarding the safety and efficacy of products marketed as Ayurvedic. Understanding this evidence within the broader context of skepticism of “alternative” medicine also sheds lights on more sweeping judgments of Ayurveda and other traditional systems of medical knowledge. This is not simply an issue of so-called “medicine” that does not fulfill its purported purpose, but which further harms the person ingesting it. Taking the evidence against certain aspects of Ayurvedic medicine into account, it is not a far reach to see how this skepticism is extended into a more specific skepticism regarding the possibility that certain foods, on their own, can also appropriately be counted as drugs.

Concerns arising from this literature are further bolstered by the discovery of over 300 fake Ayurvedic doctors in the suburbs of Mumbai in 2018.⁶⁴ On September 26, 2017, members of the Ayurveda Medical

⁶² Ibid., 920.

⁶³ Cyriac Abby Philips, Rajaguru Paramaguru, Adarsh K. Joy, K. L. Antony, and Philip Augustine, “Clinical outcomes, histopathological patterns, and chemical analysis of Ayurveda and herbal medicine associated with severe liver injury — A single-center experience from southern India,” *Indian Journal of Gastroenterology* 37 (2018): 10.

⁶⁴ “Cop bust racket, worried that 300 fake Ayurvedic doctors practise in Mumbai’s eastern suburbs,” *Hindustan Times*, February 20, 2018, <https://www.hindustantimes.com/mumbai-news/cop-bust-racket-worried-that-300-fake-ayurvedic-doctors-practise-in-mumbai-s-eastern-suburbs/story-FblEnAqFs6T8Zmytwr4syJ.html>.

Association of India united in observation of “Anti Quack Day,” opposing and raising awareness of unlicensed Ayurvedic practitioners.⁶⁵ From a consumer perspective, a number of Ayurvedic medicine brands market their products using claims that are vague and misleading. The company Patanjali, for instance, implores customers to consume their brand of honey and “remain healthy forever.”⁶⁶ Skepticism of Ayurvedic medicine is compatible with broader concerns regarding quackery in the medical community. Western medicine’s default interpretation of Ayurveda as inferior carries over into a critique of continuum-based interpretations of the food-drug relationship and the upholding of a dichotomous interpretation whereby an edible thing should only be appropriately interpreted as a drug if it is given clearance based on scientific data demonstrating its safety and efficacy.

It would be imprudent to neglect potential harms in a discussion of Ayurvedic medicine, but it would also be similarly imprudent to neglect consideration of the potential side effects of synthetic pharmaceutical drugs when considering prescribing them to a patient. The framing of Ayurvedic medicine, the classification of various non-mainstream approaches as alternative/complementary medicine, and the skepticism regarding non-mainstream interpretations of medicine and the food-drug relationship serve as evidence for the degree to which dichotomous interpretations of food and drugs are entrenched within mainstream Western medicine. The above expressions of nutritional and medical ideology illustrate the widespread deference to these interpretive modes as default positions, as gold standards for what counts as medical knowledge. On this view, there may be bits and pieces of efficacious theory and practice in non-Western and non-mainstream traditions, but these should be viewed with caution — often because they are under-researched within mainstream medical science — and should never be used in place of, but at best as a supplement to, “conventional” medicine. On this view, the category of “medicine,” and of “drug” more generally, refers specifi-

⁶⁵ “Form anti-quackery cells to bust fake ayurvedic medics,” *The New Indian Express*, September 26, 2017, <http://www.newindianexpress.com/states/kerala/2017/sep/26/form-anti-quackery-cells-to-bust-fake-ayurvedic-medics-1662681.html>.

⁶⁶ “Patanjali Honey,” *Amazon*, accessed October 30, 2018, <https://www.amazon.in/Patanjali-Honey-500g/dp/B01H71288Q>.

cally to synthesized compounds, perhaps originally derived from edible things (e.g., plants or bread mold), but markedly and ontologically distinct from these origins.

9. Conclusion

While dichotomous approaches are currently dominant in interpreting the food-drug relationship, this observation on its own is not an endorsement or rejection of this cluster of interpretive modes. Rather, unearthing the often-implicit assumptions and presuppositions of these views creates the space for assessments that are both more open and critical. It is a step towards bridging the “gap of mutual incomprehension” that too often develops around specific debates, such as those regarding the plausibility of the concept of food addiction. As historian Matthew Smith writes in his exploration of the history of food allergy, “arguments about the relationship between food and health have always been passionately fought, partly because of the many interests involved, partly because the science involved is complex and often interdisciplinary, but also because we all believe that we are experts about what we eat.”⁶⁷ It is my hope that this work contributes to the development of a more explicitly historical and interpretive understanding of our experiences and views regarding the food-drug relationship, placing a few planks toward genuine dialogue between conversation partners on these issues.

⁶⁷ Matthew Smith, *Another Person's Poison: A History of Food Allergy* (New York: Columbia University Press, 2015), 14.