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SPECIAL FEATURE: ORIGINAL ARTICLE

Pathways towards sustainable landscapes

Affective sustainable landscapes and care ecologies: getting a real feel for alternative food communities

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Abstract This paper examines some of the more-than-representational knowledge that underpins food systems. As argued, it is not enough to know what sustainability is. We have to, literally, be able to feel (care for, taste, practice…) it. The author begins by drawing upon interviews with food scientists, food advertisers and marketers, and executives from the food industry. Interviews with individuals from the food manufacturing industry reveal numerous tensions routinely grappled with by those actors as they attempted to make the industrial food system appear unproblematic and its wares desirable. The value of these data becomes particularly clear when triangulated with those presented in the paper's second half, where the author discusses some of the findings of research projects still underway—case studies of food-based community activism in Chicago and Denver (USA). The data collectively suggest the existence of a class of "barriers" that the literature—and many activists and practitioners—miss but which must be overcome if we hope to see a diversification of foodscapes. These constraints speak specifically to more-than-representational visceralities that buttress industrial food and the system from whence they come—what the author calls "affective barriers". The paper argues (social) bodies need to be "retuned" to the tastes, cares, textures, and practices associated with alternatives to the (food) status quo and offers examples of how this is already being done.

Keywords Sustainability · Embodied · Performative · Visceralities · Alternative food networks · Taste

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Introduction

Michael Polanyi (1966: 4), the brilliant twentieth century polymath, famously proclaimed, while discussing what he called the tacit dimension, "We know more than we can tell". Anecdotally, we all know this to be true. Ever try telling someone how to ride a bike? Or take that special food your grandmother used to make for family occasions. Ever ask her to write out the directions, with the addendum "I want it to come out, and most importantly taste, just like yours?" I have done both, with neither coming out as I had hoped. Why? Because the knowledge required in either case cannot be reduced to words—they are more-than-representational (Carolan 2008). A great deal of our knowledge and understanding of the world is of this "more than we can tell" variety. That realization may seem trivial and inconsequential, especially when compared to the practical hard work being done by academics, activists, and practitioners who are working to build more sustainable landscapes. Do not be fooled. This insight is of immense practical consequence, as you will soon discover. This paper is deeply interested in what it takes to actively create—to *enact*—more just and sustainable foodscapes. If we are going to take Polanyi's point seriously, however—about knowing more than we can tell—then we are also going to need to embrace the fact that it is not enough to know sustainability. We have to literally be able to *feel* it; a point I spend the remainder of the paper unpacking. Building primarily on the literature associated with the sociology and geography of food and agriculture, while drawing upon methodological techniques where interview data are presented in ways that expand into our minds and bodies, the aim of this paper is to write about food as something that is felt, practiced, and performed.

We have all heard the argument about how "we are hardwired to love the taste of fat, salt, and sugar" (Swabe et al. 2007: 180). This claim is then extended to argue that our attraction to fast and highly processed foods is both inevitable and natural—after all, as those making this claim argue, those tastes are rooted in our genes. This position not only essentializes taste but also washes away the initial visceral resistance put up by bodies that had not yet learned to be affected by industrial food. Anthropologist Melissa Caldwell (2004), for example, when studying the introduction of McDonald's food in Moscow, reports that many respondents initially did not like its taste. One individual went as far to explain "that he had tried it and could not understand why a person would eat such food more than to try it once" (p. 15).

Yet it is not just taste that is an artifact of a dizzying array of social, material, and visceral assemblages. Part of the process of feeling food and sustainability is how we feel about these phenomena. This too is viscerally grounded in practice—in the socio-material web we find ourselves immersed within. Care ecologies: a sociological reminder that "to care" is "to be connected". But also, we must not forget that this connectivity stretches beyond, say, how organisms relate to each other and their environment and includes, in the truest spirit of *oîkos* (the Greek root of ecology), our lived experience of dwelling. How we are connected, therefore, influences how we care and what we care about. I will introduce this style of relational thinking up-front to push back against any misunderstandings that construe my argument as resting on essentialisms. It presents quite the opposite argument, in fact. Numerous black boxes are pried open—bliss, taste, care, choice—and their relationality exposed, including some cherished ones occasionally attached to local/regional food, such as the assumption that consumers would choose organic fresh fruits and vegetables if only they tried them and were given the opportunity to put a face on their food—those "if they only knew" arguments (Guthman 2008).[1]

Like others (e.g., Goodman 2011; Johnston and Baumann 2010; Roe 2006), I have been deeply interested in the processes by which individuals, communities, and, ultimately, entire societies are socialized to the tastes, textures, sensations, and practices associated with industrial food—a process I have tried to make sense of through the metaphor of "tuning" (see e.g., Carolan 2011; Goodman et al. 2014; Stock et al. 2015). As in: bodies and societies needed to first become "tuned" to industrial food for this system of food provisioning to have the grip on us that it currently does. And so, consequently, we need to take those "more than we can tell" knowledge into consideration if we ever hope to enact alternative food landscapes. Bodies, in a word, need to be "re-tuned" to the tastes, cares, sensations, and practices associated with the alternatives to the status quo. That is what I mean when I say it is not enough to know sustainability but that we also need to feel it.

Like earlier projects, this explores the processes by which societies and individuals are "tuned" to industrial food. Food companies in the early and mid-twentieth century deliberately set about orchestrating their products and messages, indeed the entire consumption experience, so people would first "accept" than actually "want" industrial food—essentially a description of the process of tuning billions to the affective structures of processed food (Carolan 2011). Advertising, school lunch programs, and two major world wars are just some of the phenomena examined to explain this process of mass tuning. For instance, World War I was pivotal in creating a specific canned food taste regime in Europe, to the point where "the French were slowly showing signs that they actually *desired* canned foods" by the war's end (Carolan 2011: 35, emphasis in original).

This paper builds on earlier projects but departs significantly from them by drawing on interviews with food scientists and others from within the food manufacturing sector. I, therefore, begin this paper drawing upon interviews with food scientists, food advertisers and marketers, and executives from the food industry. A lot of ink has been spilt by scholars in an attempt to move "beyond the production–consumption debate in the sociology of agriculture" (Goodman and Dupuis 2002: 6), which refers to a long tradition in the literature between consumption-oriented food studies and production-oriented sociology of agriculture. Conspicuously absent in all of this are data drawn from the food manufacturing sector. Given that processed foods constitute roughly 70 % of what we eat (Ryssdal 2013), this omission seems rather glaring. Specifically, here, I focus on interviews with the so-called "taste makers" (Sax 2014), namely, those holding management level or above positions within some of the world's largest multinational agrifood firms. From the standpoint of theory building, if we hope to ever erect "a better theoretical bridge", in the words of Goodman and Dupuis (2002: 11), and thus span the so-called production–consumption divide, then I argue we need to be more expansive with our research, which ultimately means being more inclusive in who we interview and study when looking at food.

[1] An extensive sociological literature critically unpacks taste/distinction by way of the writings of Pierre Bourdieu (e.g., 1984), though arguably the intellectual lineage of that argument can be traced even further back to the work of Norbert Elias (2000 [1939]) with his discussion of manners in the context of the "civilizing process". The argument that taste distinctions emerge around, and help perpetuate, class distinctions has been applied extensively to the subject of food (see e.g., Johnston et al. 2011; Wright et al. 2001). This paper builds upon these works that show how phenomena such as taste and preference, which are often assumed to be objective and natural, are in fact deeply sociological.

In this study, the value of these data becomes particularly clear when they are triangulated with those presented in the paper's second half, where I discuss some of the findings of research projects still underway—case studies of food-based community activism in Chicago and Denver (USA). The data collectively suggest the existence of a class of "barriers" that the literature—and many activists and practitioners—miss but which must be overcome if we hope to see a diversification of foodscapes. These constraints speak specifically to those "more than we can tell" visceralities—what I will simply call affective barriers.[2] Yet do not let this talk about barriers' mask what are otherwise quite hopeful findings. For in those communities discussed, steps are being taken to overcome a variety of barriers, which include those pertaining to how subjects *feel* about food.

One final word about the empirical focus of this study—namely, its visceral emphasis—before moving on to a discussion of methods. This paper seeks to elaborate on the affective nature of relationalities that are only beginning to be grasped, though there are signs we are in the midst of what might be called an "affective turn" in agrifood studies (see e.g., Bennett 2010; Carolan 2011, 2013; Latimer and Miele 2013; Whatmore 2013). One of the valuable lessons of this research is to emphasize food's relational underbelly, which is to say that any ontological claim about "it" cannot stop at its compositional materiality (or nutritionality, to speak of a particularly radical form of reductionism that Scrinis 2008 has labeled "nutritionism"). Rather than viewing food as a thing (a noun), it is fundamental that we first grasp what food really is, which is a process (a verb). In sum, food—and how/what we feel about "it" and the feelings of care we attribute to "it"—cannot be divorced from the embodied practices, socio-institutional arraignments, and cultural conventions whence it came. This affective "turn" in the agrifood literature, and this paper, attempts to show food *in the making*.

Part I: Methodologically setting the stage

The social scientific literature is rife with studies examining (food) consumers and producers; a research tradition that reaches back decades. There is also a steadily growing body of work looking at actors that lie between these two poles—farm laborers, those working in meat processing/slaughter faculties, food servers, etc. Considerably less research, however, examines attitudes, sentiments, and understandings among decision makers within the food manufacturing sector.[3] To be sure, there are some notable historical (see e.g., Mintz 1985) and ethnographic (see e.g., Jordan 2015; Lien 1997; Miller 1998) works that examine the various material and visceral aspects of food, which include in their analyses the practices, processes, and beliefs of agrifood manufacturers. Yet when set against the sea of research examining producers and consumers, the neglect of those taste makers becomes apparent. This asymmetry in the literature becomes even starker when comparing journal-length treatments.

A major reason for this omission is access. Generally speaking, those working within the food manufacturing sector tend to be tightlipped about what it is they do (and why they do it). In light of this reality, I was forced to abandon, to obtain *any* sample, some of the first principles I teach my PhD students about sociological methods, most notably the issue of random sampling. Research and other professional activities (consulting, public lectures, etc.) over the years have placed me in contact with dozens (perhaps hundreds) of individuals who at one time or another worked in the food manufacturing/processing sector. I parlayed some of those contacts into interviews either by interviewing those immediately known or by being placed into contact with someone in an attempt to further diversify my sample. ("Diversity" here means interviewing respondents with different occupations within the sector and/or who worked in different countries.) In the end, twenty-seven individuals were interviewed. Each interview lasted between 60 and 90 min. Interviews were tape recorded and later transcribed. The interview process stopped when the threshold of "saturation" was reached. Theoretical saturation refers to the phase of qualitative data collection/analysis when new themes emerge and concepts (and linkages between concepts that form theory) are verified and well developed (see e.g., Glaser and Straus 2012).

Those interviewed worked at some point in their career (as some are now retired) for some of the world's largest food companies in divisions located in more than a dozen countries—the US, Canada, Brazil, Mexico, Ireland, England, France, Spain, India, China, Korea, Russia, New Zealand, and Australia (though the companies themselves are headquartered in the US, Canada, the UK, and Europe). In exchange for agreeing to be interviewed, however, a

[2] The concept of "affect" has a long intellectual tradition. The great seventeenth century philosopher Baruch Spinoza discussed at length the phenomena of affect. More recently, theorists such as Alfred North Whitehead, Gilles Deleuze, Isabelle Stengers, and Donna Haraway have built on the concept, taking it further than Spinoza by distinguishing clearly between affect and what are conventionally called emotions. Unlike emotion, which is individuated and individuating, affect can be taken to refer to a force or an intensity (to use a term Whitehead evoked often) that can belie the movement of the subject.

[3] "Food manufacturing sector" here refers to food processing firms and does not include, say, crop scientists or those engaged in the so-called "biotech sciences".

promise was made not to disclose past and present employers. As noted previously, those interviewed include food scientists (or "taste engineers", as some liked to be called), advertisers and marketers, and mid- and upper-level executives (some of whom previously held jobs as food scientists or advertisers). Pseudonyms have been used to protect respondents' identities.

Finally, a brief word about methodologically "grasping" what I call above the more-than-representational. The method is like all subjective analysis, sensitive to the power of words—and their limitations in conveying the more-than-representational aspects of the sociology of food. I argue here for a style of representation that acknowledges its limits, while as reflexive representation, demands the reader consider not just the meaning of the word but what it evokes in our senses.

The following discussion is organized around some of the themes that emerged out of the interviews.

Manufacturing bliss

> "The moment corporations got involved in the [cooking] process forever changed food. That's not a statement about whether the change was good or bad. I'm just stating a fact. We can't do things like what you do in your kitchen. The scale of the endeavor, the transportation and storage requirements; it's just a different beast, industrial food".

The above quote comes from Mark, a senior-level executive for a major food company. We are discussing challenges faced by food processors that result from the scale of their operations. He continues: "And all that salt in our food, is it there to get us hooked; to push consumers toward the so-called 'bliss point'? Perhaps. I'm not going to lie; salt has undeniable flavor enhancing properties. But it's also there because it has to be. Salt is a food processor's best friend. It's a cheap preservative, texture enhancer, bacteria and mold fighter, food coloring setter, and binder. The trick, and what all this 'bliss point' talk misses, comes in taking advantage of all these properties while also making sure you end up with something that doesn't taste like a damn salt lick".

The "bliss point": a term popularized by the best-selling book by Michael Moss (2013) titled *Salt Sugar Fat: How the Food Giants Hooked Us*. Moss's argument, in just a few words, is that food companies have made consumers "hooked"—essentially addicted—to processed food by engineering its taste profile to approximate that magic threshold. The notion that consumers are being manipulated by food processors and made addicted to food is not without its critics (see e.g., Dubost 2013). Those interviewed were asked about the concept, at least as it was understood by Moss. All were critical of his explanation of it. In particular, they questioned the implication that the bliss point is some fixed immutable thing.

> "We don't," Mark continues, "design food to match a pre-given bliss point as much as we work to adjust the bliss point to fit with the taste profiles of our food". Note in this sentence something akin to the notion of tuning, which I introduced earlier. Clarifying this point he later added: "You can't adjust the bliss point overnight. It takes a lot of work. Making people better *attuned* to the sensory experiences that we're able to sell is a slow expensive process" (my emphasis).

Struck by this, I responded by saying: "That's an interesting word choice: *attuned*. Could you elaborate?"

"It's just that, while we'd like to think that through the magic of science we can manufacture any taste and texture sensation imaginable the truth is we're limited with what we can do. The human body is a ridiculously sensitive instrument. […] Rather than trying to perfectly mimic some objective food ideal we've found that it's easier in a lot of occasions to change what individuals think that ideal is. Take red meat. You think we've always valued intramuscular fat, or what's more generally known as marbling? Of course not. […] But since that's now what we got, as a result of finishing beef cows with corn, it makes a lot more sense to bring people's tastes around to that fat profile rather than trying to engineer industrial cows to distribute fat differently". This last point about meat is profoundly important and harkens back to Mark's earlier statement about how corporations "forever changed food" due to "the scale of the endeavor". It also highlights deeper viscerally structured realties, which suggest that changes to the organization of our food systems may limit more than just our choices as consumers but what we think, feel, and taste is possible as citizens.

Stephanie, a food scientist who at one point in her career worked in the cereal division of a major international food company, put it this way when talking about some of the shared challenges large-scale food processors face:

"We make batches that make tens, even hundreds, of thousands of servings. We also have to make sure that what we're making is sufficiently stable so it will withstand the wild temperature changes of transportation, especially from the store to the consumer's house—in the summer it could be sitting in a 120° [Fahrenheit] car. […] To meet the needs of the industrialization process and long-distance commodity chains mean we're [food scientists] working within shared parameters. […] I like to think of what we [food scientists] do as comparable to an artist. The canvas we're all working from is very similar. Take just about any cereal

out there on the market. Most start as puffed-out grain from an extruder; a more or less flavorless and nutritionally empty pre-food—pre-food because you wouldn't want to eat it, trust me. Enter the food scientist. We come along and add variability, in terms of flavor, color, and nutritional content. […] And then of course the marketing folks do their thing, which is to create still further market differentiation".[4]

I heard this point repeatedly, about how, to quote another respondent, "the industrial process precludes a number of foods, which means it also precludes certain tastes, sensations, and textures". Later this food scientist, who I will call Steve, added, "Just have a look at what apples or tomatoes are available at your local grocery store. The ones you see are the ones that can handle the industrialization process. But that's just a fraction of what's actually out there—that's what I mean when I say the industrialization process flattens out the tastes and experiences available to consumers".

Far-reaching claims: "the industrialization process *flattens out the tastes and experiences* available to consumers" (Steve) and "to meet the needs of the industrialization process and long-distance commodity chains means we're all sort of *working within shared parameters*" (Stephanie). They suggest that our visceral connection to most industrial food is bounded; that our "more than we can tell" knowledge of it is confined to certain parameters, to use Stephanie's term. What then becomes of food, and the food systems whence they came, that fall outside those parameters? That is a question to be addressed later.

Experiencing taste

To understand *how* populations are "better *attuned* to the sensory experiences that [food companies are] able to sell" (Mark) requires that we do some unpacking of the taste experience. Doing this shows that it is oversimplified to argue, as Michael Moss (2013) does, that food companies "hook us". To accept such an argument would be to accept that the taste experience is purely—or at least overwhelmingly—a biochemical (read: non-social) phenomenon. None of those interviewed accepted such a premise.

The *process* of taste cannot be reduced to how things taste. We do not taste with only our mouths but with our entire body. Of course, no food scientist would disagree with this point. We have long known, for example, the role the nose plays in taste, thanks to the scent receptors that detect thousands of volatile chemicals that give foods their "complexity"—what is known as retronasal olfaction. More recently, it was learned that the cells lining the small intestine also contain taste receptors (Jang et al. 2007). When these intestinal sensors detect, for instance, sugar, they trigger a cascade of hormones that ultimately ends with a little extra insulin in the bloodstream. But the process of taste goes even beyond this. It truly is a whole (social) body experience. This brings me back to Stephanie and Steve. If their claim is true, about how the industrialization process precludes certain taste experiences, which is where "the marketing folks" come into the picture, as Stephanie put it, so they can "do their thing", than that narrowing ought to extend throughout the entire taste complex (or ecology), to memories, notions of care, and convivial past, presents and imaged futures.

Mark, the previously quoted food executive who spent 10 years "in the trenches" as a food scientist, had a profoundly sociological grasp of taste, as the following quote makes clear: "People aren't just eating food when they bite into McDonald's French fries or a Twinkie or Fruit Loops. They're also biting into past memories and future expectations. I ate that stuff growing up and you better believe that little kid is still there when I go to McDonald's or when I open up that fresh box of Fruit Loops for my kids and get that initial whiff of childhood. […] They're also biting into symbolism and feelings. Does the food and company attached to it fit with consumers' ideas about how the world ought to be—is it culturally appropriate? Taste isn't some fixed biological thing. […] It's an array of forces and energies that food companies put forth that people experience—that they feel—during the act of consumption".

Note especially the importance Mark places on memory in shaping the consumption experience. The relationship between food and memory has attracted considerable attention among sociologists, geographers, and anthropologists. The deeply visceral nature of food makes its consumption a particularly intense and compelling medium for recollection (see e.g., Stafford and Collins 2013; Sutton 2001); a point not lost among those interviewed.

To quote Barb, a 10-year veteran in advertising: "Why do you think places like McDonald's have playgrounds in their restaurants or encourage that milestones like birthdays

[4] Many cereals start as grains mixed with water—what is called grain slurry. This slurry is then put through a machine called an extruder. The extruder forces the grain slurry out through a tiny hole at high temperature and pressure. The shape of the hole determines the slurry's ultimate hardened state, such as little o's (Cheerios), big colorful O's (Froot Loops), hexagon-shaped discs punctuated with little o's (Honeycomb), shreds (Shredded Wheat), or puffs (Corn Pops). From the extruder cereal is then shuttled over to a nozzle and sprayed with a coating of oil and sugar to postpone the inevitable sogginess that follows contact with milk. Extrusion, however, strips grains of their nutrients, which explains why so many commercial cereals are fortified.

be held there? It's all about eliciting positive sentiments and memories. If you can give people a positive eating experience it almost doesn't matter what the food tastes like. I mean, it does, but if the experience is strongly positive it [taste] doesn't matter nearly as much as if the experience was negative or neutral".

Yet it is not just about making new memories around these foods. Also important in all of this is the evoking of memories from the past, even those—and in some cases *especially* those—formed alongside non-industrial foods. "Take that home-cooking you ate as a kid", to quote Craig, also in advertising. "We're really keen to dial into those memories, of you sitting around the kitchen table at grandma's house—stuff like that. But we have to be careful. We want to trigger sentiments for home cooking without triggering sentiments to make people want to do the home cooking themselves".

"How do you do it—trigger some sentiments without triggering those others?", I inquired.

> "Well, fortunately [chuckles], it's not as difficult as it used to be. This was a real concern for the generation [of advertisers] before me. I've had a few tell me as much. Back then the majority of the people doing the shopping still cooked, or at least still knew how to. Not so much today. Today they may want to do some home cooking but few actually possess the skills and knowledge, and time too, to do it. But still, you don't want them longing for actual home cooking too much. It would be bad for business if we started making people feel bad about eating food from large multi-national corporations".

Stewart, a food scientist, noted that "taste can't be reduced to a chemical property or flavor experience". He continued, "When you talk about taste you have to talk about it systemically. […] Having a taste for some things means certain systematic arraignments, which have a type of lock-in effect".

"What do you mean by 'lock-in effect'?", I asked.

> "It's just that, once we as a society started to eat ready-to-eat processed foods we started to lose the ability to cook at home. […] The societal norms that incentivized eating at home started to erode away too. Once that happened there became a self-reinforcing momentum propelling forward certain tastes and practices. […] We sort of got locked into things. That's not to say we can't go back to eating less processed food and eating around the table as a family again. It does, however, mean we've got an uphill battle. It can't be accomplished overnight. […] A lot of systems need to be reconfigured first—social, cultural, agricultural, economic".

Taste has *momentum*: that is a useful way to think about the concept as it helps emphasize its inherently ecological nature—a point made explicit by Stewart when noting its (taste's) interrelatedness with "a lot of systems". Thus when, for example, dieticians and health professionals talk about needing to change the tastes of individuals, households, and societies we need to remember that this goal involves a lot more than just "retraining taste buds" (Fenster 2012: 71–72). We need to have the entire (taste) complex in mind. I discuss how these ecologies are disrupted—and reoriented—by alternative foodscapes later in the paper.

Negotiating care

"Even the shopping experience is carefully designed to elicit a positive response". This statement comes from John, who had recently retired after spending more than 30 years advertising products for a variety of well-known international food brands. He continued: "Especially children, who are now being targeted with special intensity. The thinking being, the earlier they can be made accustomed to the industrial food environment the better. Next time you're in a store just look around—shopping carts in the shape of cars and trains, free cookies and balloons for the kiddos, full-sized cardboard cutouts of their favorite characters, like SpongeBob [Squarepants]".

At this point in the interview, John reached from behind his desk (the interview occurred at his house) to a nearby bookshelf and grabbed a book: *Principles of Marketing*. Holding it up for effect he made the following observation: "In Marketing 101 we call it 'creating brand loyalty'. But I'd say there's an even more foundational, if that's right word, reason for all this. There's a sentiment out there—you won't find it in a textbook but it's there—that advertising helps keep the [food] system afloat. We have to make people want what we're trying to market without creating dissatisfaction with industrial food itself. Does that make sense? […] Before retiring I was working on a couple different 'all natural' lines. It was a delicate balancing act. We had to make people want 'all natural' foods without having them reflect too much on just what 'all natural' means. If we got it wrong we risked not only turning them off to the 'all natural' products but to all of the company's lines—to process food *itself*".

It is easy to criticize industrial food on the grounds that it is amoral or immoral. But such an argument belies the data. Food companies *want* you to care. And they work hard to show that they care too (Carolan 2011). For example, eating in spaces such as a McDonald's is an

expression of care for many, of caring for one's family and providing for one's children. These restaurants go to great lengths to create convivial "family" experiences, which is more than can be said for many spaces where people eat meals these days (e.g., in a car, alone). When you talk to people who eat there with their family, they frequently mention things that relate back to caring, of wanting to be a good mother, father, and grandparent (Carolan 2011). All this "caring" occurs, however, at the expense of care for the environment, for animals, and for all those people behind the Happy Meal.

This tension came out during the interviews. Another retired executive, who I shall call Joe, explained it to me this way: "To say we [food companies] don't care is rubbish. And we want our customers to care too, especially when it involves things we can provide. Look at the majority of ad campaigns out there. Most are premised on a belief that our customers care about something".

At this point, I interjected and asked, "Could you say a bit more about what you mean when you say 'you want customers to care too, especially when it involves things we can provide'? What does that mean precisely?"

With that he smiled and remarked, "Perhaps I've said too much, or at least I should have put it differently. Listen, food companies can do well when that sense of caring focuses on things like one's family—of being a good provider, feeding their family a healthy, affordable meal. When it starts involving things like a livable wage, that's not a conversation food companies want to get involve in, if they can help it. They don't want consumers thinking about that stuff when contemplating whether or not to buy their products".

Patty, yet another retired executive, was even blunter. When discussing the subject, she had this to say: "You never see an advertisement, ever, with an actual farm on it. I mean a real farm, where the animals come from—a factory farm. The reason is simple: the general rule is that we don't want people thinking about that stuff. Let them think about how our food tastes, if it's nutritious, if feeding it to your family makes you a good parent. […] Usually we'd want to keep how our food is raised and processed behind a giant veil".

In short, like taste, care can be thought of in an ecological sense, as being part of a broader assemblage of feelings, patterns of social relationships, and physical encounters. The shape and composition it takes depends on which foods (and food system) we are talking about. Industrial food appears to gravitate toward certain care ecologies over others—those that emphasize, for example, cheapness, particular images of parenting and conviviality, etc. One would assume that challenges to today's foodscapes would embrace alternative care ecologies. These alternative ecologies are described—in terms of how they look and feel—later in the paper.

Constructing choice

"We just can't rely upon the same strategies as in other industries to increase purchase frequency. While people can buy bigger houses or rent garage space for more stuff, their stomachs are only so big". I was interviewing Sam, who at one time oversaw the marketing of all of North America for a division of a major food company. We were talking about the subject of consumer choice, in terms of what it means, how it is constructed, and how firms use it to their advantage. Sam continued: "We talk about how choice is good for consumers. In truth, manufactures are the ones benefiting most from it. […] If you give people enough choices they'll actually buy more than they need. Why? Because too much choice leads to regret—regret of what wasn't bought. So they'll end up buying more". Sam's argument is actually well documented in the literature. As explained by consumer psychologist Barry Schwartz (2004: 20), "a large array of options may diminish the attractiveness of what people *actually* choose, the reason being that thinking about the attractions of some of the unchosen options detracts from the pleasure derived from the chosen one" (emphasis in original). We continually ask ourselves, in other words, "what if?"—*what if* we tried that other flavor/brand of ice cream, frozen pizza, fruit drink—when faced with an overabundance of choice. And we are worse off because of these choices, as the more there are the more "what ifs" we have to contemplate and regret.

"So clarify this for me: what is consumer choice, as you understand it?", I inquired.

> "I think for us, for those of us in industry, it is what you would expect: option maximization. And fortunately for us having all these options work in our favor, at least when it comes to getting consumers to overconsume. […] But I'll admit that it's debatable if having 20 different potato chips to choose from is really choice, especially when those 20 flavors come from one or two companies. But that's where we come in [advertisers], to make it look like the choices are real. […] It's not that choice is a mirage; it's just what we make it to be".

"It's just what we make it to be" is reminiscent of ideas reflected in the aforementioned discussion around ecologies of care. The point is that like taste, care and choice can be thought of in an ecological sense, as being part of a broader assemblage of feelings, patterns of social relationships, and memories. Choice is not objectively enacted but is a sociomaterial process. This reality was expressed in the following comment made by Jeff, a respondent in advertising and marketing: "I'm sometimes amazed, and even a little worried, at how successfully we've been. People can be plopped in the middle of a food

> desert, nothing but 7-Eleven [US-based convenient store chain], McDonald's, White Castle [US-based fast food chain], and Church's Chicken [US-based fast food chain] as far as the eye can see, and think they're surround by some grand panoply of choice. […] A lot of time and resources are being spent holding that image of choice together".

Part II: Methodologically setting the stage

The second group of data comes from two in-progress research projects. These case studies examine food deserts in Chicago, Illinois, and Denver, Colorado, where instances of food-based community activism are underway.[5] The data drawn upon for this paper consist of 35 interviews (between both case studies), involving community leaders, food activists, urban gardeners, farmers' market consumers (including low-income residents), and growers living outside city limits who sell food within these communities. Purposive and snowball sampling methods were employed, recognizing that to maximize sampling diversity there was a need to launch multiple "snowballs". Each interview lasted between 60 and 90 min. Interviews were tape recorded and later transcribed. As before, pseudonyms are used to protect respondents' identities.

The purpose of incorporating this data into the paper is triangulation. Interviews with individuals from the food manufacturing industry revealed numerous tensions routinely grappled with by those actors as they attempted to make the industrial food system appear unproblematic and its wares desirable. I will now highlight those tensions as they appeared to those looking to enact alternative foodscapes.

Re-manufacturing bliss

Food industry actors spoke of how they try to "adjust" consumers' tastes to the sensory profiles of their food and in doing this make consumers "better *attuned* to the sensory experiences that [they're] able to sell" (Mark). Talking with activists, consumers, and growers, it became clear that the food industry has had at least some success in doing this—in tuning individuals to processed food. Take the following exchange between Rick and myself. Rick is a farmer who sells vegetables at a local farmers' market.

> "There are some people in this community that have no experience with fresh vegetables. The only vegetables they have known have come out of a can. And you know what; in most cases they actually prefer canned vegetables to fresh ones, at least initially".
>
> "How do you know this?", I asked.
>
> "I've seen it with my own eyes and heard about it with my own ears. […] I've let people try peas only to have them tell me they like them better out of a can. I've let people try carrots and they've told me they like the baby carrots from the store better because they're softer. […] Don't get me wrong; I'm not blaming them. They've just acquired a taste for those foods. […] Until we get those people accustomed to eating non-processed foods a lot of them are going to keep coming back to the processed stuff".

Food scientists were earlier quoted commenting on how "the industrialization process flattens out the tastes and experiences available to consumers" (Steve) and about how it is their job to work "within [these] shared parameters" (Stephanie) and come out with something desirable. That proved to be a particularly apt way of putting it: the industrialization process *flattens out* the tastes and experiences available to consumers. Respondents on the alternative "side" of the food fence would have agreed with this assessment of processed food. Indeed, that "flattening out" process resulted in, according to individuals interviewed, a barrier of sorts for alternative food movements.

Debbie, a community activist, made this point most clearly using the example of cheese: "I think we've generally been conditioned to expect that our food taste a particular way. […] That can work against what we're trying to do here. […] I like the example of cheese. Artesian cheese is by nature incredibly variable, in terms of its taste, texture and smell. No one batch will ever taste like another. You might say that 'the normal' [makes an air quote gesture] for cheese, up until about 100 years ago, was that nothing was normalized. Now take industrial cheese. Kraft makes billions of servings of cheese, every one of which tastes like any other. And the taste: it's almost the antithesis of how cheese tasted for millennia. […] I've had artisan cheese makers tell me that one of their biggest obstacles lies in our mouths and noses—that we've got to get over our aversion to artisan cheese. […] We think it [cheese] is supposed to smell a certain way and that way typically doesn't include the smell of stinky feet".

Something to think about when discussing and debating sustainable foodscapes is the creation of openings for new food-based sensations. It is often argued that sustainable foodscapes need to be rooted to the agroecological conditions of place, as well as seasonality (Alexander 2008; Wezel et al. 2009). That may be true. But we cannot just assume that the food consuming public, who will be expected to buy and eat these foods, will wholly accept (and have the skills and time to

[5] A food desert is generally understood as a community where residents lack access to affordable nutritious food. While agencies such as the United States Department of Agriculture have more specific definitions those definitions need not be reviewed here.

prepare) them once they are made available. Indeed, the evidence suggests, especially for foods with sensations that fall outside the industrial norm, that many eaters will not—that is, at least not until they have been tuned to these alternative foodscapes.

There are many ways to work toward this "re-tuning". The following is an exchange I had with Clair, a community activist who gives school groups tours of urban gardens inside and around Chicago. As Clair explained, it is not your "typical show and tell sort of experience". He continued, "I certainly show and tell. But I think what really makes the biggest difference is that I make sure they get a real hands-on learning experience. Just last week, for instance, we had a group of about ten kids in and we spent 30 minutes passing around different tomatoes. As they were getting passed around I was explaining to them how you can tell how a tomato tastes by feeling it. […] For a point of contrast I had brought in some tomatoes from Jewel [a retail store]. They were, as you'd expect, hard as a rock. I was trying to show them what they were missing if they only ate store bought tomatoes. Then we did some taste tests. I think it was a pretty effective learning experience".

Such attempts at re-tuning not only give alternative foodscapes additional visceral traction but also, importantly, make the status quo sound, taste, feel, and look out of tune. As Clair further explained, "I had one kid come up after and tell me how they had no idea that tomatoes can taste that way and that they're going to tell their parents and see if they can't try growing some from seed next year. This isn't about making big changes all at once; just trying to get people used to new and different flavors, which I hope will lead people to eating differently. From there one can hope something bigger comes out of it".

Of course, none of this matters if these experiences are one-off, which is why we also need to actively pursue policies to ensure that they are repeated. The concept of "incubation space", which as noted by sociologists of technological artifacts reflects networks where novel ideas and their material reality mature (see Geels 2004), is useful here (see Carolan 2011:145). These spaces are premised on the partial shielding of experiences and practices from market and nonmarket forces. But these spaces also allow for the buildup of alternative visceral attunements.[6] Some examples of policies directed toward these ends could include any (or all) of the following: more subsides for small-scale producers, urban gardens, and fruit and vegetable producers; less restrictive city zoning ordinances that allow people to have gardens, chickens, goats, pigs, bees, etc.; more so-called cottage food legislation (laws making it legal to sell homemade foods); more funding for experiential learning programs in our schools; and tax breaks, as is being done in such US cities as San Francisco, Cleveland, and Baltimore (WPM 2014), for property owners who are willing to turn uninhabited land into farms by allowing them to get the land assessed at the going tax rate for farmland.

[6] The fact that these spaces can be created and have an actual effect (and affect) on individuals gives weight to the argument that these barriers can effectively be called "structures". Think about so-called controlled experiments, which are repeatable. That repeatability is the result of actors (e.g., scientists, nonscientists, and perhaps even the occasional non-human; Haraway 1997) intervening, closing off competing, contradicting, and virtual relationalities to produce relatively stable outcomes (Bhaskar 1997; Deleuze 1966). If affective structures do indeed exist, we ought to be able to create similar conditions, which is to say we ought to be able insulate (or perhaps a better metaphor is inoculate) individuals from their effects.

Re-experiencing taste

Knowing that the taste experience reaches beyond the taste buds, the sale of industrial foods is also predicated on the making, and evoking, of memories. As noted earlier, food companies devote considerable energy (and money) through advertising and built environments (e.g., McDonald's Playplace) to help ensure that their foods are associated with positive sentiments. This reality was not lost on those I interviewed who are working to create alternative foodscapes. As Rebecca, a farmer, explained:

> "The organizers of local [farmers'] markets are starting to pay closer attention to the entire experience of the event. It's more than just about the food and they're starting to get that. […] A lot of the places now have music and stuff for the kids, some have little petting zoos. […] Farmers too. We take our time with customers. We talk with them; just try to get to know them. We want the experience to be a positive one. The food could be great but if they don't find the experience enjoyable they're not going to come back. It's as simple as that".

Yet, as earlier discussed, taste goes much deeper than this. There is a veiled ecology to taste that we would do well to keep in mind. Allow me to unpack this point a bit more, with the help of some interview data. A core assumption of sustainability studies centers on the value of diversity. Diverse agroecological systems are resilient, at both the ecological (Altieri 1995) and societal (Flora 2001) levels. There is also a well-documented virtuosity attached to diversity, which to put it plainly means diversity begets more diversity.

Take the concept biocultural diversity—a term coined to explicitly acknowledge that biodiversity sustains culture and vice versa (and that the erosion of one begets the erosion of the other). It is no coincidence that most of the world's biodiversity hotspots are also cultural hotspots (see

e.g., Stepp et al. 2004). Gorenfloa et al. (2012) find that 70 % of all languages left on Earth reside in these spaces rich in biodiversity. And we must not forget the role of taste in all of this. Nazarea (1998), for example, documents how differences in sweet potato preferences in the Philippines help sustain the crop's diversity. In Mexico, the great diversity in its corn landraces is expected to survive as long as the country's culinary diversity remains intact and continues to require all those different varieties (Smale et al. 2001).

In other words, if we wish to maintain agro-biodiversity we must maintain cultural diversity, which means we must maintain a diversity of tastes for food. Or to put it more plainly still: having a taste for certain foods presupposes the maintenance of practical knowledge that would allow those foods to be raised, processed, and cooked. Less than 3 % of the 250,000 plant varieties available to agriculture are currently in use (Vernooy and Song 2004). More troubling still, trace the typical Western diet back to the soil and you will find roughly a dozen plants there (Thompson 2007). The industrialization process does not just, to a repeat a metaphor offered earlier by a food scientist (Steve), "flatten out" the tastes and experiences available to consumers. It also, because of this flattening out of taste, *erodes* biocultural diversity.

One of the community activists interviewed, Trish, was of Mexican descent. Her mother had come to the US as a teenager. One of Trish's favorite things to make, a taste passed down by her mother, is blue corn atole: a hot corn-based beverage—one of the traditional drinks of the Mexican holiday Day of the Dead. It is not hard to guess what the primary ingredient is. Nor is it a surprise to learn that you will not find blue corn at the local grocery store. "You can't make it with #2 yellow dent", Trish told me, referring to the single variety of corn blanketing thousands of square miles of the US Corn Belt each growing season. "I need blue corn because that's how mom always made it. And I personally think it tastes best with blue corn meal". She later remarked, "If I can't get it [blue corn] I can't make it [blue corn atole]. And if I can't make it I worry my kids might lose their taste for it. What will happen to plants like blue corn if all these traditional dishes go away? I guess they'll go away too". As go these tastes and skills, so goes biological diversity.

Like sustainability, it looks as though biodiversity, too, is something you have to feel and taste.

Re-negotiating care

Those within the food manufacturing industry, to recall, were sincerely interested in eliciting from consumers feelings of care. As Joe explained to me, this was especially so "when it involves things [the industry] can provide", such as the idea of all-natural foods and a convivial family space to eat in. But this proved a delicate balancing act in some instances, for the last thing they wanted was to turn consumers off "to processed food *itself*" (John). Thus, what was and was not revealed of the (industrial) food system was delicately managed. As one executive put it: "usually we want to keep how our food is raised and processed behind a giant veil" (Patty).

Those involved in alternative food movements were trying to throw that veil open. Jill, a farmers' market customer, put it to me this way: "There's a lot that's hidden with the food that you buy at the store. It's not that everything is visible here—I can't actually see the farm these foods were raised on. But still, I can see a heck of a lot more here than I can when walking into Walmart. Here you can talk with the farmer and ask them, if you want, about how they grow their food: is it sustainable; how are their animals treated, for those that raise things like eggs; what's their mission statement? […] You might say that at places like farmers' markets you not allowed to forget some of the very things Big Food [food processers] would rather you not remember when thinking about what's for dinner".

Making eaters aware of "some of the very things Big Food would rather you not remember" did not guarantee that consumers would abandon industrial food in its entirety. I would not go so far as to say these experiences were qualitatively transformational. But, equally, I would argue that it would be asking too much of any movement to engender such experiences. What these spaces did seem to elicit, however, and this point is significant, is a greater sense of *ambivalence* toward the foods individuals are eating and the systems of provisioning that lie behind them.

To be ambivalent toward something means possessing less stable attitudes, as those feelings tend to be in tension (Berndsen and van der Pligt 2004). It also leads to more reflexive behavior as those conflicting visceralities come together (Carolan 2011). Thus, while ambivalence does not link up lockstep with a given behavior, it does tend to mediate (and often moderate) related behaviors. Looking into attitudes of meat consumption, for instance, research has shown that higher levels of ambivalence are correlated strongly with lower levels of meat consumption (Povey et al. 2001; Sparks et al. 2001). Another study shows that ambivalence shapes not only the quantity of meat individuals consume but also can have bearing on whether individuals are interested in the quality of life that livestock have (Carolan 2011). In short, the finding that alternative foodscapes have within them the potential to increase ambivalence is sociologically significant.

Those interviewed repeatedly talked about how these new experiences brought to the fore new attitudinal and

ethical tensions. The following is a representative expression of these strains. Mary recently began growing vegetables on a ten-foot-by-ten-foot plot in a neighborhood community garden: "It [gardening] makes you more aware. It's hard to explain because none of these experiences are going to change anyone overnight. But they make you think. […] They make you think more about your food rather than just going through the motions, which is what tends to happen—something I think is by design, actually".

Sarah, the head of a low-income household who attends a local farmers' market with her children, had this to say: "Before [attending the farmers' market] my kids had never met a farmer and they never thought twice about what they ate and where it came from. […] They still love their junk food but at least now they actually think about, once in a while at least, their food. […] We were at the [grocery] store recently and [my son] actually asked if the eggs were free-range. My jaw almost hit the floor. That would not have happen before we started going [to the farmers' market]".

An assumption within neoclassical economic theory is that consumption is a reflection of attitudes, hence the tendency by some to liken shopping to democracy (see e.g., Friedman 2002). Ambivalence shows that matters of consumption are more complicated than that. Often the act of consumption is like a calm surface that glosses over terribly turbulent waters of competing attitudes and visceralities.

Re-constructing choice

Food manufactures expressed an interest in increasing consumer choice. Why? In the words of one advertising executive (Sam), "Because too much choice leads to regret—regret of what wasn't bought. So they'll [consumers] end up buying more". Those interviewed employed by agrifood firms also admitted that, to quote Sam again, "it's debatable if having 20 different potato chips to choose from is really choice, especially when those 20 flavors comes from one or two companies". Enter advertising: "But that's where we come in [advertisers], to make it look like the choices are real" (Sam). Let us now bring in what was discussed in the previous subsection, about ambivalence. If these differences, which make up the "choice", are quantitative (e.g., 20 different potato chips from practically identical farm-to-fork chains) rather than qualitative (e.g., 20 different snack foods from 20 different farm-to-fork chains), then the chance of ambivalence emerging through the act of consumption is minimalized. That appears in part why alternative food networks evoked feelings of ambivalence among certain respondents, precisely because the "choice" they offer is qualitatively different from that found at, say, a big-box retailer.

That is one strategy offered through these alternative foodscapes: to make consumers more reflexive about their actions by increasing the level of ambivalence they feel toward food systems. But there is another offered through these spaces: reducing our choices as *consumers* to increase our choices as *citizens*. In other words, we are talking here about prioritizing citizen choice over consumer choice. At the moment, we seem continually confronted by what economist Alfred Kahn (1966) has aptly called the "tyranny of small decisions"—e.g., Coke or Pepsi?—when we could be using that time to build strong, vibrant, and just communities and households.

Lisa perhaps put it best, this distinction between consumer and citizen choice, when she said, "I get irked when people claim we're [local food activists] against consumer choice. That's not true at all. We are against the illusion of choice you get in a supermarket. We want more choice. But a choice that brings people and communities together and that helps sustain the environment; not a choice that locks us into practices that collectively makes us less well off".

Conclusion: affective sustainable foodscapes

The previous sections have sought to highlight multiple affective barriers. These are phenomena that food practitioners, activists, and scholars need to pay closer attention to as they seek to understand and enact alternative foodscapes. Unlike tradition barriers, which are often conceptualized as acting upon individuals, these structural constraints act from *within* at a visceral level.[7] Grasping their significance can show the limits of those "If you build it they will come" arguments: e.g., if only vegetable farmers or urban gardens were given government subsidy supports like grain farmers; if only consumers had better access to locally produced fresh fruits and vegetables; if only grocery stores better stocked their shelves with "whole" (less processed) food; etc.—in sum, if only these (external) structural constraints were overcome then everything would be different. As highlighted, overcoming these structural constraints alone is not enough. People also need a *feel* for the alternatives. Until that happens, little can be expected to change.

This paper innovates upon, or at least is disruptive to, the literature in three ways. First, with regards to the sociology of food and agriculture literature, it expands upon notions of

[7] This is not to say that everyone's experiences of these structures are identical. But do we not all experience social structures differently, depending upon our social location and embeddedness within social networks? We live in an open world where event regularities are far from the norm; a complex world populated with countervailing relationalities. So we should not expect either the subjective experience of affective structures or their material manifestations by way of practice to be identical and monolithic.

"production" by interviewing decision makers within the food manufacturing sector. With regards to social theory, it expands our notions of structure to include those that act *through* (versus *upon*) us, at a visceral level. And, lastly, the paper expands our notion of *homo economicus* (economic human), showing that the idea of an unfeeling rational actor is a farce, that consumption is a deeply visceral process that cannot be adequately explained in utility maximization terms, and that social reality is populated with not only causally efficacious mechanisms but also causally affica-cious mechanisms.

In conclusion, while debating what sustainable food-scapes ought to look like and examining case studies whereby people are doing things differently let us not forget to look also at the feelings, ecologies, and more-than-representational knowledge underpinning those net-works. As I have illustrated, it is not enough to know what sustainability is. Like that favorite dish your grandmother (or grandfather) used to make, sustainability is not some-thing that can be written down with the expectation that anyone and everyone will be able to replicate it. Sustain-ability takes practice, literally. It requires people talking and working together, trying out new things, and feeling new experiences (Carolan 2013). It also involves the overcoming of barriers: those that reside "out there" (market access, credit, etc.) as well as those that act from "within".

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