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Adventurous food futures: knowing about alternatives is not enough, we need to feel them

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Abstract This paper investigates how we can enact, collectively, affording food systems. Yet rather than asking simply what those assemblages might look like the author enquires as to how they might also *feel*. Building on existing literature that speaks to the radically relational, and deeply affective, nature of food the aims of this paper are multiple: to learn more about how moments of difference come about in otherwise seemingly banal encounters; to understand some of the processes by which novelty ripples out, up, and through social bodies; to speak to, and suggest ways to resolve, ontological asymmetries within the agrifood literature pertaining to Cartesian dualisms; and to offer ways forward that allow agrifood scholars to talk about phenomena such as feelings and structures/barriers in the same sentence. The empirical flesh of the paper comes from an admittedly unconventional case study. On December 10, 2012, Amendment 64 was added to Colorado's constitution making it legal for adults to consume marijuana for recreational purposes. The case examined is not about pot, however. The paper, rather, is about hopeful, hydroponic-inspired, agrifood futures; novel doings, feelings, and thinkings sparked by, among other things, food grown in basements and spare bedrooms.

Keywords Affect · Power · Performativity · Political economy · Relationality · Care

Abbreviations

HOA	Home owners associations
ANT	Actor network theory

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Introduction

"What do the social sciences have to do with food security?" It is a question I have confronted often, in one form or another, during my career. On the one hand—or, more specifically, from one ideology/ontology/paradigm/imaginary—it is a fair question. When enmeshed within, say, the "productivist ideology" (Lawrence et al. 2013; Rosin 2013) or "land commodity ontology" (McMichael 2014) or "bio-economic paradigm" (Marsden 2013) or a distinctly modern "rural imaginary" (DuPuis and Goodman 2005), then the social sciences really do not have much to do with food security. After all, food security, when grasped from within these worlds, is about things that can be counted—yields, prices per unit, cheapness, and the like (Carolan 2013a).

From other relationalities, however, the question seems almost too obvious to ask. As in: "What do the social sciences have to do with food security?" Answer: "Everything!" The social sciences, and the humanities more generally, deal often with things that count but which cannot (or arguably should not) be counted. When talking about food prosperity from these alternative "worlds" the aim is to enact ecologies of care (Carolan 2015) that prioritize what counts, including those phenomena that cannot be counted.

Yet the value of agrifood studies does not end there. Knowing that (food) worlds come and go—though, as noted earlier, scholars use different terms to convey this point—makes agrifood scholarship sensitive to the wildly turbulent relationalities that lie below the often calm surface of appearance. In other words, when these scholars talk of paradigms or ideologies or regimes they do so in the context of change and contestedness. Therefore when questions arise around food security—e.g., "How can we

produce more?"— the social scientist avoids the one-size-fits-all answer—e.g., "With sustainable intensification!"—preferring instead to zero in on context, giving rise to such questions as "Food security for *whom*, and according to *who*?" while pointing out that, for instance, "Before we can secure it we have to know what food is, or *should* be." Conceptual and analytic styles vary considerably among scholars as they detail transitions from one paradigm or regime to another—compare, for instance, the "transitions perspective" (e.g., Marsden 2013) to the "food regime" framework (e.g., Friedmann 2005; McMichael 2009). Yet they all understand the importance of situating those "whom" and "should" questions in a spatial socio-historical context.

This paper is interested in all of these things: in enabling (food) worlds of care that value those phenomena that cannot be counted (but which count) while also better understanding how relationalities change, especially when the seemingly ephemeral confront those with such "weight" that they can be named—regime, paradigm, imagination, field, etc. There remain, however, blind spots in the literature. First, how are these possibilities thought possible to begin with? The above frameworks offer rich resources for helping us understand how challenges are mounted against conventional thinkings and doings. The transitions perspective, for instance, has especially made a name for itself with its innovative analytic categories for discussing how micro-level niches can eventually result in macro-level regime transitions. And yet, from whence those challenges (or niches) come the above frameworks do not tell. This leads me to ask: how does the unthought-of become thinkable and the undoable routine?

Answering this question, however, reveals still another blind spot, a conceptual and analytic weak point in our grasp of reality that needs illumination if we are to talk about enacting more sustainable and just food futures. There is nothing magical, mythical, or even marvelous about the origins of novelty and difference. The soil out of which they spring is mired in quotidian details of alternative *doings*. To think differently we have to *do* differently—what Carolan (2013b, c) has elsewhere described through the process of co-experimentation. But *why*? What is it about the sticky viscerality of practice that make worlds of difference? And how can we talk about and theorize doing difference in ways that avoid the radical individualism (and essentialism) implied by conventional understandings of practice, knowledge, and feeling, thus embracing the more-than (human, material, etc.) "turns" that are becoming increasingly prevalent in agrifood circles?

All I will say about the subject at this point is that the agrifood literature is full of pronouncements rejecting Cartesian-inspired dualisms, whether nature/society or mind/body (for a review see Carolan 2013b). The theorizing that then follows, however, belies, or at least undercuts, these claims, as there remains considerable talk about things like "openings" (e.g., Marsden 2013) and "crises" (e.g., McMichael 2009) that drive social change.[1] To be clear, I am not denying that Things like "climate change, population growth, the turn to bio-fuels and biomass, and the 'nutrition transition'" (Marsden 2013, p. 125) are causally efficacious. [The Latourian-via-Heidegger Thing: "much too real to be representations and much too disputed to play the role of stable, obdurate, boring primary qualities, furnishing the universe once and for all" (Latour 2000, p. 119)]. My point is that there is an ontological asymmetry in the literature: considerable talk about how change is initially spurred on from, or at least given expression because of, the *without*; relative silence as to the role of the *within* in all of this. (I am speaking here of the within/without as an analytic distinction, as will be made clear later.) While critiquing the categories of the Enlightenment our scholarship remains drawn to them. The romantic trope of resistance in Western though: a system in *crisis*, an *opening*, a revolutionary *agent* of history seeking truth and freedom against oppression (Chatterton and Pickerill 2010; Sparke 2008). Yet what if change was not about any "thing" at all (Gibson-Graham 1996) but instead a coalescing made possible by causally efficacious (socio-material assemblages) and causally afficacious (*vibrant* socio-material assemblages) Things? How might we think and talk about change when grasped in this diffractive manner?[2]

This paper seeks to better understand the generative capabilities of alternative food assemblages that extend to issues of social change, value creation, and a politics of the convivial. It also seeks to elaborate on the affective nature of relationalities that are only beginning to be grasped, though there are signs we are in the mists of what might be called an "affective turn" in agrifood studies (see e.g., Bennett 2010; Carolan 2011a, 2015; Latimer and Miele 2013; Whatmore 2013). The empirical flesh of the paper draws from an admittedly unconventional case study. The case involves recent changes to marijuana laws in the state of Colorado (USA). On December 10, 2012, Amendment 64 was added to Colorado's constitution making it legal for adults to consume marijuana for recreational purposes. The

[1] On a related note, though speaking to a different inconsistency, Moore (2011) offers a detailed critique of how the metabolic rift literature unintentionally reinforces Cartesian dualisms when theorizing the ecological crisis.

[2] Haraway (1992) and more recently Barad (2007), in an attempt to work free of the representationalist trap, offer the methodological technique of diffraction: **"**a mapping of interference, not of replication, reflection, or reproduction. A diffraction pattern does not map where differences appear, but rather maps where the effects of differences appear" (Haraway 1992, p. 300). Elsewhere I explore what this technique might look like when put to work in agrifood scholarship (Carolan 2016).

story told, however, is not about pot. Instead, my interest is in phenomena—namely, hydroponic equipment and those with knowledge to make assemblages sing—that are helping to enact novel doings, feelings, and thinkings that are collectively giving rise to adventurous (more about that term later) agrifood futures.

It is also a curious case from others in the agrifood literature precisely because the phenomena discussed do not yet, and perhaps never will, have "weight". [The term "weight" was used by Lefebvre (2002, p. 11), as in "the weight of everyday life". I use it here to refer to phenomena with both mass (assemblages) and address (*vibrant* social bodies)]. No one is claiming there is a hydroponics-based food *movement* or an emerging hydroponics food *regime*. The social sciences tend not to take as much interest in these pre-figurative moments, preferring instead to wait until many of the rules of the game, practices, and lines of flight have been set. Why wait until then? We might learn something about social change by examining these seemingly quotidian moments, before there is even an "it" to study. Indeed, there is something inherently hopeful in the act of directing our attention to precisely these types of encounters. Clifford Geertz (1973, p. 23) famously wrote about how "small facts speak to large issues, winks to epistemology, or sheep raids to revolution, because they are made to." Once we name something as, say, a "social movement" we risk jumping too quickly to seeing an action (e.g., closing an eye) in theoretically-colored terms (as a wink). In other words, we tend to find what we are looking for. (The methodological equivalent to the old saying, "If you carry around a hammer everything starts looking like a nail.") We also then tend to ignore those encounters that do not fit with a pre-assumed pattern. It also might explain why the social sciences seem trapped in a type of structuralist paranoia from which there is seemingly no escape: because in being so busy looking for sameness (e.g., recurring patterns of neoliberalism) we miss the difference, novelty, and multiplicity that surround us. "Weak theory", Gibson-Graham (2014, p. S149) write, "does not elaborate and confirm what we already know, it observes, interprets, and yields to emerging knowledge". Focusing on the everyday encounters described below, before these lived assemblages are coherently named (and our grasp of them colored by strong theory), forces us to confront our world's complexity while, hopefully, allowing us to see mutability in the otherwise "hard surfaces of life" (Geertz 1973, p. 30).

Briefly describing the case

In November 2000, Colorado voters passed Amendment 20, which amended the state constitution to allow the medical use of marijuana. Twelve years later, voters returned to the polls to vote on whether recreational marijuana use will be legal in the state. Colorado voters passed Amendment 64 in November 2012, making the limited sale, possession and growing of marijuana for recreational purposes legal for adults 21 and over (it remains illegal in the eyes of the federal government, however). On January 1st, 2014, the law went into effect.[3]

While an interesting case itself, this paper is not about the cities of Denver, Fort Collins, Boulder, Vail, Aspen, and the like becoming "little Amsterdams" (though residents of these towns are keen to make such a connection). This paper is primarily interested in how a small but growing group of individuals are drawing upon pot-centric entanglements within the state to make something genuinely new as it pertains to doings and thinkings with, around, and through (hydroponically-grown) food. The general research site is the community of Fort Collins, located roughly 60 miles north of the state capital, Denver. This community of approximately 150,000 residents is full of diverse becomings-with hydroponics, giving rise to communities of practice where an expanding network of individuals grow and harvest food in their basements and spare bedrooms.

For those unfamiliar with drug laws in the US, homeowners can legally own hydroponic equipment in all 50 states and hydroponic retail stores can be found across the country. However, given the perceived association between hydroponics and marijuana growing/use, hydroponic retailers and the homeowners of such equipment have been systematically targeted by law enforcement (see e.g., NY Daily News 2013). This makes the types of coming-togethers found in Colorado difficult in other states, and especially difficult to study. The aforementioned change in Colorado's constitution therefore did not allow hydroponic farming to take place, as it has always been legal. It does, however, help explain why Colorado is such a rich site for the types of co-experimentations described below.

With the help of a snowball sampling technique, 18 individuals were initially interviewed. Those interviewed innovated upon existing cannabis assemblages resulting in novel agrifood spatialities. Four of those interviews took place in a focus group during the initial stages of the research. The focus group allowed me to develop the initial snowball and helped refine the theoretical constructs that guided my questions. Interviews during this stage occurred in the early months of 2013. Those interviewed grew only food (not pot).

[3] Amendment 64 states that adults can possess up to an ounce of pot and can grow as many as six marijuana plants at home (though only three can be flowering at any given time). Any homegrown marijuana, however, can only be for personal use and cannot be sold, though adults can gift to another adult up to an ounce of pot.

The next 14 months were spent following, observing, and doing-alongside these 18 individuals in numerous situations: talking with others about hydroponics, growing food, harvesting it, sharing it, and, best of all, eating it. Along the way I came into contact with others, some who grew food hydroponically, others who used hydroponics for other ends, and still others who were the beneficiaries of the food grown. This resulted in an additional 21 formal interviews (making for 39 total interviews). Detailed notes were also taken of my encounters. All names have been changed to protect respondents' anonymity.

Prelude

The more-than-representational (Carolan 2008) nature of everyday life makes for a tricky "Findings" write-up—after all, writing assumes a world that can be written about. I do not deny that we *can* talk and write about reality, which is why I prefer to speak of "more-than-representational" rather than the often used "non-representational". The challenge lies in writing about the world in way that allows for that playfulness and difference to come through without slipping into incoherence. The following sections loosely follow a structure that allows me to unpack how doing difference can result in hydro-human-food assemblages that sing.

Getting a feel for difference

Deleuze (1994, pp. 135, 139), that rabble-rouser of Western thought, wrote: "Something in the world forces us to think. This something is not an object of recognition but of fundamental encounter. It may be grasped in a range of affective tones. […] In whichever tone, its primary characteristic is that it can only be sensed." The Cartesian worldview is full of atomized subjects of reason (e.g., the rational actor, sovereign consumer, etc.) and feeling (e.g., that deeply personal/psychological way we think about emotions). Deleuze, animated by the likes of Spinoza and Whitehead, sought to decenter our grasp of world. His discussion of affect was directed to this end. Unlike emotion, which is thoroughly individuated and individuating, affect can be taken to refer to a force or intensity (a term Whitehead evoked often) that can belie, disrupt, and ultimately transform the becoming of subjects and (social) bodies.

That some-Thing that forces us to think, but which can only be sensed, underscores the powerful nature of encounters. Bergson (1998) argues there are two distinct ways to approach the question of potential. Western thought holds dear to one, the one whereby potential involves *acting out* pre-given possibilities—for examples, look to treaties about the economy (e.g., free market capitalism, *à la* Friedrich Hayek) and idealized liberal democracy (e.g., communicative rationality, *à la* Jürgen Habermas). At best these approaches embody a type of weak realism while at worst they are strongly transcendent in their reasoning—after all, their central theme is about going beyond the material to realize a yet-unrealized *ideal*. Bergson opts for an alternative understanding of potential, one where virtual forces (to use Deleuze's term) come together to *enact* something genuinely new. This is not a postmodern celebration of indeterminacy but a rejection of predetermination. Alternatives are therefore always-already present. The implication, however, is not that change comes easily. Potentials may well be at hand but it still takes a lot of work, acting collectively, to grasp and enact them (see e.g., Stock et al. 2015). Embracing immanence also teaches us to be open to, and playful with, difference. Furthermore, it engenders a hopeful outlook on the world. We ought to find it freeing to know that there is no one right way to make alternatives real. But also immanence helps us focus attention on the "margin of maneuverability" (Massumi 2002, p. 212) that resides, often un-enacted, in every situation.

> I grew up in rural Kansas. We always had a garden as a kid, always lots of fresh vegetables in the summer. Unfortunately living in town and having a tiny yard makes it hard. And even if we did have room for a garden it doesn't rain enough here for someone to raise vegetables without some sort of irrigation system.

I am talking with Alice. She is explaining to me how her and her husband came to start growing a variety of vegetables in their basement in the winter in addition to on their deck during the summer.

> We have a friend that's a [marijuana] grower. He's been doing it for a while, though I won't say how long [smiles]. We were sitting around having beers 1 day and the subject of hydroponics came up. The next day [my husband] was on line watching YouTube videos on it, trying to learn more about how to grow vegetables. That weekend we both went to a local hydroponics shop to have some questions answered and the rest, as they say, is history.

When interviewing Alice I was reminded of de Certeau's (2011) notion of "tactics". For de Certeau, a good bit of what we do is tactical in nature, in that it is dispersed, unpredictable, and grounded in the realities of concrete encounters. Juxtapose this to what de Certeau refers to as "strategies", which speak to those colonizing powers of domination that weigh on us. But weight, as mentioned

earlier, does not imply immovability, which brings us back to the concept of tactics: this inventiveness—these never-ending comings and goings of mass and address—makes the "weak position seem the stronger" (de Certeau 2011, p. xx) by creating opportunities that cannot all possibly be responded to by strategies.

Drawing upon, and co-experimenting with, existing hydroponic-centric communities of practice represented a tactical intervention. All respondents described that "margin of maneuverability" (Massumi 2002, p. 212) when recollecting those moments when they first began co-experimenting with things like grow lights, flow fitting kits, and dome propagators. The account typically went something like this: "We just decided 1 day to do it, much like when we decided to till up our lawn and put in a garden, or when we decided to join a CSA. I think at some level we've always known it was a possibility. It just takes making that leap" (Julia).

Making a leap within "a crack in the here and now" (Anderson 2006, p. 705) and doing some-Thing different—*that's* the hopeful potential alluded to by Bergson. And in some instances that doing alters our capacity to act and makes the unthought-of thinkable.

Deleuze (1978) offers the example of a child to illustrate this transition. The child is knocked down by a wave and becomes angry because it limits the little one's capacity to act. This understanding is then replaced with one that understands the wave's nature and the possibility of becoming active with it. Important in this latter understanding is not an abstract knowledge but one concretely rooted within the encounter. This process decenters the previous social body (that is angrily knocked down by the wave), replacing it with one better positioned to become-with the wave—a swimmer/wave-rider/floater/etc. (see also Ruddick 2010, p. 30).

Back to Alice…

> We have a friend whose HOA [home owners associations] doesn't allow gardens or raised beds. Guess what, a group of us got together and helped get him started and now he's able to grow vegetables year round in his basement. To hell with those damn HOAs. [laughs] […] Or as in our case the yard might not be large enough. […] This [hydroponics] is a game-changer. You don't need a yard. Hell, you don't even need soil. […] We can do things now we would have never dreamed 10 years ago. We can grow just about whatever we want.

Like the child initially buffeted and knocked down by waves, Alice describes situations where capacities to act were hamstrung by various strategies (e.g., HOA covenants) and fascisms in our heads (e.g., "…would have never dreamed 10 years ago")—the latter a phrase provocatively employed by Foucault (2003, p. 30). But these social bodies found room to wiggle "within the cracks" and in doing this became some-Thing different. They learned to be affected by encounters thereby allowing their capacities to expand where before they were constrained. Even with HOAs and insufficiently sized (and sandy and infertile) yards, Alice and her friends still found ways to grow food, like in basements and spare rooms.

It is the destabilizing moment of the encounter that "perplexes" social bodies (Deleuze 1994, pp. 139–40), sometimes with sufficient intensity as to give shape to new political subjects. Some of the most effective encounters directed toward this end are those that are deeply affective. Scholars, from Deleuze to Derrida and Haraway, have written passionately about the transformational power of joy, while others, such as Negri, emphasize the disruptive imminence of sorrow. I realize it is not terribly sociological to talk about things like joy and sorrow, except for in a few subfields. But as already indicated, the agrifood literature is littered with these sentiments. For example: *crisis* (e.g., Carolan 2011b; Magdoff and Tokar 2011; Rosin et al. 2013; Stock et al. 2015; Van der Ploeg 2010). When mentioned in the agrifood literature "crisis" does not refer to just structural features—e.g., rising food prices, climate change, peak soil/oil/water. It also speaks to affectivities—e.g., sorrow, ontological insecurity, dread, worry. Why? Because Deweyan publics can, and routinely do, form around those encounters and that engenders affective intensity.

Dewey (1946), the great American philosopher and an early developer of pragmatism, worried about the interests, beliefs, and ideologies of elites becoming "fixed" and assuming a taken for granted status within dominant political and social cultures. To combat this he prescribed the technique of "experimentalism", which essentially involves the recruiting of the broader public to constantly reflect upon and question conventional habits and beliefs. Dewey believed this constituted an important first step in breaking up imposed rules of order and action that is necessary if meaningful social change is to occur. The most likely time for established rules to be reformed, Dewey argued, is when existing institutions fail. During these moments "publics" form that are commonly united through a shared threat. Food-related problems are therefore inherently hopeful, in the sense that they possess the potential to create coming-togethers that provoke creativity and change.

Respondents appeared to feel a shared sense of crisis, which contributed to their needing to maneuver between the cracks and do something different. The following is a representative quote that points to an emergent "public" that individuals located themselves within, under the banner of a growing food crisis.

> We're going to need to radically change business as usual. What we're doing isn't going to feed future generations. If anything what we're doing is going to kill our children's children, if we keep doing what we're doing. We're not saying hydroponics is the only or even an answer—we know there are energy and water issues with it. But at least we're doing something, *anything*, to try something new in light of the looming food crisis. (Nicki).

How publics do this, however, is where I part company with many contemporary pragmatists, as they tend to place too much faith in the power of talk. Habermas (1987), for instance, develops his pragmatic insights by way of the concept of communicative rationality. To greatly over-simplify things, Habermas argues that a vibrant public sphere (in other words, good old-fashioned talk and active listening) has the power to break the stranglehold on rationality by elites. Put another way, if lines of communication between all stakeholders were opened (and not restricted to just the privileged few) than many seemingly objective realities and facts could be questioned and underlying ideologies exposed. The thing about "publics" missed in these communication-centered arguments is that they involve a *material* coming together, not just a talking together. If most of what we know cannot be reduced to words (see e.g., Polanyi 1966), then we've been engaging in a very short-sided form of politics for a very long time, arguably ever since the Ancient Greeks first gathered in an agora and invented modern democracy. Talking only conveys that which can be represented, ignoring the more-than-representational aspect of social life.

Moreover, since most of what we know comes from practice, from actually doing something, then we cannot expect much novelty to be generated from talk. This brings me back to my earlier point: to think differently and enact difference means we need to first do and feel something different. Democracy, it turns out, should not be all transcendent and clean. It is active, enactive, embodied, and even a bit experimental—a point nicely captured in the last quote where Nicki spoke "about doing something, *anything*, to try something new in light of the looming food crisis".

Making difference stick

Jeff has an elaborate "farm" set up in his basement, with plans to soon extend the operation into a spare bedroom. In the summer months he also has a hydroponic vertical stacking system in his yard on a concrete slab. Jeff has been growing food using hydroponics for 4 years and has become somewhat of a trailblazer as he recently starting selling his produce to family and friends through a "quasi CSA share-type scheme". This involves them paying Jeff one lump sum, based on what they can afford, in exchange for "a five gallon bucket full" of fresh vegetables about once a week, throughout the entire year (though, as soon explained, Jeff is also open to bartering). Like Alice, Jeff spoke of how these various practices "radically altered [his] view of what's possible when it comes to thinking about 'agriculture' in the twenty-first century."

Jeff went into detail discussing some of the ways in which existing networks were tactically innovated upon. In his own words:

> You can't throw a rock in this town and not hit someone that either grows [marijuana] or knows someone who does. There's all this expertise here [in hydroponics] making it easy for someone who's willing to think a little outside the box about how they might be able to use that technology. […] I just started talking to people and went to a few homes to see the operations in person. And then I just started experimenting.

It is helpful to think about what Jeff is describing through de Certeau's (2011) notion of "walking in the city". According to Certeau, walkers move in ways that are tactical and never fully determined by the schemes ("strategies") of governments, planners, and businesses—for example, they might cut through buildings, hurdle fences, or walk through train tunnels. *How* pedestrians walk is also something that these disciplinary assemblages try to influence—walking versus running, pausing in front of store displays, etc. But, alas, strategies are never entirely successful in accomplishing this (remember, those "cracks"). Everyday life consists significantly of social bodies drawing on existing rules, networks, and technologies in ways that are influenced but never completely determined by convention.

Yet de Certeau has been rightfully criticized for not being able to account for how tactics ripple sufficiently to make a difference (Pinder 2011). So I can jay walk—how does *that* change anything? Lefebvre (1987, pp. 34–35) also noted the limits of such personal transgressions, in that while being able to point bodies in new directions they fail to actualize difference for they "leave it to the realms of ideality (as opposed to reality) and of desire, which turns out to be 'mere' desire, i.e. verbal desire." This why the "co" in co-experimentation is so important, as the rippling "upward", "outward", and "through" of tactics is premised upon sticky *doings* with others. I saw this time and again: the moments that mattered most were those with mass and address. For example: Jeff co-experimenting with others on how to optimize grow lights; Jeff and his

customers (of his "quasi CSA share-type scheme") co-experimenting with different barter arraignments (e.g., one neighbor mowed Jeff's lawn in exchange for a weekly bucket of fresh vegetables); or Alice co-experimenting with her children as they learned about growing food (in all places a basement!). We need to be mindful that if a tactic fails to create affective ripples it is not going to elicit any sort of meaningful change.

Allow me to return briefly to Alice co-experimenting with her children. I watched them effortlessly spend more than 2 h (a long time to hold the attention of an 8 and 10 year old) planting peppers, lettuce, and green onions. I cannot tell you—though it was clear that it was *a lot*—how much enjoyment the kids felt playing with the water, preparing the trays, and talking about all the foods they were going to make and eat once it was time to harvest. The event rippled *through* every one of us that afternoon, myself included; encounters that had a feel of what some might call the carnivalesque (Bakhtin 1984), a mix of novelty, chaos, humor, and joy. Getting adults and children together in a basement to experiment with plants, water, tubes, pumps, and electricity, I learned, engenders many sensations.

It is not enough to do and think differently if the goal is to enact different worlds, which brings us back to that critique of de Certeau's individualized personal transgressions. You have to make them stick, literally. This coming together is also necessary so the requisite sticky knowledge infrastructures can build up and support those futures envisioned. Sticky knowledge infrastructures: an important yet too often ignored phenomena in future food debates. It refers to all those more-than-we-can-tell practices that will have to be known and felt for alternative foodscapes to stick and flourish. That is what Alice was getting at when making the following remarks about her children:

> It's [growing food in their basement] not about the food. That's what people forget, especially those that criticize the practice on the grounds that its water and energy intensive. […] We love having fresh vegetables year round, yes. But more importantly it's about making sure our kids know about food. I mean *really* know about it. […] I think activists focus too much on food access, which is important. But what good is access to fresh fruits and vegetables if people don't have a taste for them, or don't have the cooking skills to cook with them, or don't know how to grow them and save the seeds. What then? That's what I'm trying to do here, give my kids those competencies.

Those competencies (sticky knowledge infrastructures): with them new food futures become not only possible but also eventually *routine*.

Being (and becoming) care-full with food: making difference sing

Feminist scholarship can help us make sense of these affective encounters through the notion of "care" (e.g., Fisher and Tronto 1990; Haraway 1997; Puig de la Bellacasa 2011). Care, according to these interventions, is not only necessary and vital but also ubiquitous. Nevertheless, conventional thought (and practice) continues to place greater value on the capacity to be self-sufficient, autonomous and independent from others, even though that autonomy (e.g., consumer sovereignty) is a product of affective interdependencies. Paying attention to care also directs attention to practices that are accomplished by the most marginalized, which often includes but is not exclusive to women. As Maria Puig de la Bellacasa (2011, p. 94) explains, caring "often involves asymmetry: some get paid (or not) for doing the care so that others can forget how much they need it." Bringing these care relationships into focus is to therefore enact a more enlivened notion of "value" and make problematic those practices that seek to strip caring relationalities from our understanding of the productive world.

There is some discomfort in the literature with discussions of care (see e.g., Cook 2009). In colloquial usage, caring can confer power to a caretaker. An extreme example of this being power of attorney (in the US), where an "agent" is given legal authority to make decisions on behalf of an incapacitated "principle". Feminist scholarship on care is clear on this point, explaining how "taking responsibility for what and whom we care for doesn't mean being *in charge*" (Puig de la Bellacasa 2011, p. 98, emphasis in original). To care in this sense thus requires curiosity and openness while refusing objectification. To be clear, however, there is nothing innocent about this process, as it means pulling together, as Haraway (2003, p. 7) explains, "non-harmonious agencies and ways of living that are accountable both to their disparate inherited histories and to their barely possible but absolutely necessary joint futures". In other words, and this time to quote Isabelle Stengers (2011, p. 62), "the point in this case is not to learn from the others 'as they are', but to learn from them as they become able to produce relevant ways of resisting what defines them as prey."

To learn from others as they become able to produce relevant ways of resisting what defines them as prey: such resisting is a care-*full* endeavor. As Sandel (2012) describes in his book *What Money Can't Buy*, market-centric assemblages have a tendency of (perhaps even are explicitly designed to) making collective action unthinkable and thus undoable. It is hard to get from the dictum "Go shopping!" to "Organize!" just as it is difficult to care

about things like the invisible laborers (both human and non-human) who help feed us when, as consumers, we are directed to care first about what to buy—what is called consumer-oriented social change. Lest we forget, the goals and affectivities of consumers are different from, say, sharing neighbors, members of a food cooperative, or solidarity purchasing groups. The co-experimentations I witnessed appeared to have people coming together not as consumers but as *citizens*. In other words, in Stengers' (admittedly unconventional) language, they were coming together in ways that resisted them becoming prey. (The predators in this case, as I understand Stenger's argument at least, being those practices of abstraction—like consumption, Democracy, Science, Truth, etc.—that look to subtract from the world rather than enhance its diversity.) Linda put this point nicely when explaining why she decided to start experimenting with hydroponics:

> It's not about hydroponics but about finding ways to think about the world differently. […] I even see it as a little poke in the eye at localism, which is sometimes at little too Romantic for me—all that back to the land stuff, self-sufficiency. Why can't we think and talk about local food in a highly technological sense? I'm just saying, I think we need to revisit a lot of the stuff that we take for granted, even in the local food movement. […] We need to do it together—try different things, share ideas, tell stories, make friendships. Working together will enhance our ability to innovate but more importantly it will give us a collectively-defined moral compass—something to help us understand what it is we really ought to care about. The isolated lives we live today just aren't cutting it.

In a provocative essay titled "Love Your Monsters: Why We Must Care for Our Technologies As We Do Our Children," Latour (2012) argues that Dr. Frankenstein's crime was not that he invented the creature. It would also be incorrect, he emphasizes, to think of the creature as inherently unethical. The crime (and what made it unethical) was that he abandoned the creature to itself. "Remember that I am thy creature," the monster affirms, "I ought to be thy Adam; but I am rather the fallen angel, whom thou drivest from joy for no misdeed. Everywhere I see bliss, from which I alone am irrevocably excluded. I was benevolent and good—misery made me a fiend. Make me happy, and I shall again be virtuous" (Shelley 2008 [1831], p. 76). "Our sin," in Latour's (2012) words, "is not that we created technologies but that we failed to love and care for them." Linda, quoted in the previous paragraph, would likely agree with Latour's point, that it is not technology *per se* that we ought to shun (or be fearful of) but those technologies that we have failed to love and care for.

"I'm not suggesting that if people only knew more about their food than suddenly they'd all feel differently about things." I am talking with Stacy. Stacy, along with her partner Stephanie, had been utilizing hydroponics for about a year. (They are also avid picklers—"fermentologists", in their words.) We are talking about what it means to have a relationship with food, by growing it, harvest it, or preparing (or pickling) and eating it. She continues, "But you tell me, how can you love what you do not know? […] Sure, knowing about something isn't enough. I know about a lot of things that I don't care about. Knowing about something is just the beginning; you've got to get involved with it."

You've got to get involved with it. Precisely. And that is our crime, according to Latour, that we do not get involved enough with the things around us: not in the design of food products (e.g., the privatization of seed research has led to the needs of one percent of the world's farmers being prioritized over the remaining 99); not in matters relating to how foods are manufactured; and not with the veiled non-humans and humans that feed us. Stacy, like Latour, wants us all to be activists, in the literal sense, by actively pursuing relationships and striving to make a difference in the world.

We also have to accept, and this is admittedly hard for some, that this involvement affects people differently. *Doing* is not destiny. Growing your own food no more guarantees that you will start caring more about, say, pesticide exposures among field laborers than being-with animals guarantees that you will shun eating meat (Carolan 2011a). That realization, however, does not discredit anything just said. A replicable or even predictive politics *subtracts* when what we ought to be doing is *adding* to the world. Stacy appears to grasp precisely this point by protesting how "those who argue that experiential learning environments don't work because they don't have the same impact on everyone fail to grasp their importance." She then added, "It's not about getting everyone to think the same way, or even about getting people to think in any particular way. The experience itself is what is valuable."

The experience itself is what is *valuable*. Value: it is a term that has largely been sidestepped in this paper. That is not because value is unimportant. Indeed, I could think of nothing more important than imagining systems that afford value to the world. The problem, however, is how we have come to conventionally grasp the term. We have atomized value, stripping it of its sticky relationalities making it into a thing that is to be counted rather than a Thing that counts.

The twentieth-century historian Thompson (1971) reminds us that Britain had, in the sixteenth and seventeenth centuries, an "old moral economy" of provision that emphasized the common well-being of society and which placed limits on the market. In this economy, millers,

bakers, and other merchants involved in the British food system were "considered as servants of the community, working not for a profit but for fair allowance" (p. 83). There has since been a "breakthrough of the new political economy of the free market", according to Thompson, in the wake of "the breakdown of the old moral economy of provision" (p. 136). Yet this "breakthrough" has come at great cost. These costs come in the form atomizing what previously were understood as sticky assemblages, which brought forth notions of care, duty, and the like. Equally troubling is how current entanglements often work to constrain what is doable and thus thinkable (Busch 2010). All such costs point to subtractions when we ought to be making the world more diverse. To be clear, the old moral economy was far—*far*—from perfect. This is not naïve Romanticism masquerading as social critique. My point in mentioning this is only to remind us that systems of provisioning did not always feel this way.

Codetta

Writing about adventurous food futures, I realize, can make for an adventure in and of itself. When taking the above "journey", walking alongside phenomena such as immanence, affective encounters, multiplicity, stickiness, and care—all more-than-representational—it is unrealistic to expect emerging perfectly clean and clearheaded. I therefore think it appropriate to take a few sentences to stitch some of these themes together, based on the suggestive work of others and novel interventions within the literature.

Julie Graham and Katherine Gibson—known around the world as "J.K. Gibson-Graham"—provocatively suggested, in *Take back the economy* that "we could smash capitalism by working at home in our spare time" (Gibson-Graham et al. 2013, p. ix). The above analysis, I would argue, is good to think with as we contemplate phenomena such as resistance and change in a more decentered way. Elsewhere mentioned in the literature is the issue of, "how, within anti-essentialist theories that dissolve the foundational subject [and object], we might marshal anything resembling a grounded, collective politics" (Woodward et al. 2012, p. 205). The relationalities described above are deeply political without resting on Western notions of politics (and political subjects), as they describe—and importantly describe how—social bodies can come to feel differently about the world. Scholars are also paying increasing attention to "everyday activism" and to the processes of "activist-becoming-activist" (Chatterton and Pickerill 2010, p. 479). By looking at some-Thing, before there is a named "thing" to look at (e.g., social movement), the above journey covers terrain very much a part of this becoming-activist process while unsettling understandings of what it means to be/become one. Finally, the organizational flow of the previous three sections were designed with the adventurous intent to weave in, out, and through the "within" and the "without", to evoke analytic concepts from the paper's beginning (concepts I will be returning to momentarily).

Why can't political economy be more hopeful?

I am a disgruntled political economist (Carolan 2016). On the one hand, I appreciate the analytic value of this approach. You will miss a lot about food without some grasp of those so-called political economic structures—the state, markets, capital, etc.—that make the world go around. But equally, and this is why I consider myself *disgruntled*, I do not know how you can grasp those political economic structures without understanding how they are constituted, co-created, and enacted/enacting. The movement for scholars from political economy to certain post-structural flavorings is out of a concern that the former is not critical enough. The latter, you see, unpack many of the very categories the former takes for granted revealing the radical relationalities that lie beneath. This literature then tends to head in one of two directions. Those assemblages are then said to be stitched together by some monolithic phenomena that itself manages to avoid this multiplicity—some-thing that goes by names familiar to those writing in the political economy tradition, Capitalism, Neoliberalism, Treadmill of Production, etc. Or in an over ambitious attempt to keep the baby of critique whilst throwing out the bathwater of Western thought's enduring essentialism some scholars make the argument of turtles (or more accurately assemblages) all the way down—actor network theory (ANT), for example, is uncomfortable talking about the interrelationship between interiority and exteriority (see e.g., Elder-Vass 2015). In either case, what is advertised as strength is actually their greatest weakness, where their sharp-edged approach to critique is arguably an end in itself.

This is why I appreciate the insolence shown by the likes of, for instance, Gibson-Graham (1996, 2014), Lewis (2009), Le Heron (2009), and Larner (2003) toward convention when it comes to such subjects as economies, markets, and neoliberalism. If you set out looking for sameness and domination you will end up finding it, in which case social change starts looking like some epic contest—or a Revolution—between a thickly muscled juggernaut that goes by such names as Global Capitalism, Neoliberalism, or Big Food and a spry but fledgling Resistance (Peck 2013). Too often we confuse criticism, to the point of focusing only on what is bad and wrong, with gritty realism. That is not realism but pessimism (Sharpe

2014). The radical relationality underlying post-structural political economies frameworks should not make us pessimists but I would argue critical optimists.

To put it plainly, you cannot understand food as a verb if power remains a noun. Like food, therefore, you cannot understand power in an absolute or quantitative sense, which means becoming empowered is not about winning back something but of actualizing potentials immanent in the present. This brings us back to co-experimentation: to think differently we have to *do* differently. And, importantly, we have to do it *with others* (Leitner et al. 2008). Hence the "*co*", which includes collaboration with not only fellow humans but also non-humans and even inanimate materiality—remember the importance of needing to care for/with technologies.

Near the beginning of the paper, when first mentioning the concept of co-experimentation, a reference was made to how the agrifood literature is full of pronouncements rejecting Cartesian-inspired dualisms. It was then suggested that an ontological asymmetry nevertheless remains. This can be grasped by the emphasis placed by certain frameworks, at least when theorizing social change, on systemic "openings" and socio-ecological "crises". For example, in the words of Rosin (2013, p. 50), who I would call a fellow critical optimist (see e.g., Stock et al. 2015), when discussing how food price shocks resulting from population growth, peak oil, and environmental degradation are being theorized by scholars: "The implication that crisis might *engender* necessary steps to the reconfiguration of the global food system raised the relevance of the spiking commodity prices within existing theorisations in agrifood systems research" (my emphasis). No wonder we have a tendency toward pessimism, when meaningful social change is discussed in the context of first needing to be allowed (e.g., through "openings") or engendered through an ecological crisis.

This, of course, is not the intended argument of those literatures. But the risk of such an interpretation is there, in part because we lack the analytic and conceptual tools to talk about those phenomena that emanate through, which is not the same as saying they are ontologically exclusive to, the within. I am talking here about grasping such Things as feelings, care, and visceralities in ways that are not only sociological but also in terms that political economists can understand. After all, the latter, keen to discuss things like "structures" and "barriers", have a point: the world is not utter openness. So: how can we talk about feelings and structure in the same sentence? Can we? And, just as importantly, do we want to?

Based upon the findings above, and what others involved in the aforementioned "affective turn" have argued, political economists (or at least disgruntled ones) ought to feel comfortable talking and theorizing about phenomena such as feelings, emotions, and care. Lest we forget, when grasped relationally these processes are *not* individuated and individuating but presuppose some degree of "mass" and "address"—that is, at least, if they are to have any causal efficacy/afficacy. That is how we address that earlier-mentioned asymmetry: by finding ways to talk about how social bodies learn to be affected by, and in turn effect (and in some cases even *enact*), novel encounters. I understand this aversion to affect, as notions of embodiment, feeling, and viscerality are often associated with essentialism. But you can be averse to essentialism while remaining open to interiority. Our problem ought to be with depictions of closed off worlds, where being is fixed and the interior is literally a world away from the without. You can talk about the interior and the exterior in the context of an open world; in a world that gives space to both being and becoming. Deleuze (2006), for instance, speaks about this through the metaphor of "the fold". Whitehead (1968, p. 111) too acknowledges the inseparability of these analytic events: "no unit can separate itself from the others, and from the whole. And yet each unit exists in its own right." The above analysis is aimed at describing this ever-present folding between the within and the without.

Allow me to conclude where this paper began: the title—Adventurous Food Futures. My use of the term "adventurous" is inspired by Alfred North Whitehead, a luminary for generations of relational theorists—e.g., Deleuze, Haraway, Stengers, Latour. [The latter has referred to Whitehead as one of the greatest philosophers of the twentieth century (Latour 2005, p. 223)]. Whitehead (1967) emphasized the impulse of life toward newness and the need for societies to nourish adventure that is fruitful rather than anarchic. Adventurous food futures: not about making the world a better place as much as making a place for better worlds—a messy politics that is more interested in what Deleuze (1995, p. 169) calls "collective creation" than representation. We should avoid schemes that pronounce, "This is how the world should be and this is how we get there!" (*à la* the green revolution). Instead, it would be more productive, in the sense of adding to the world rather than subtracting from it, if conditions were created that invite collaboration, co-experimentation, and a coming-together that radically alters how we think and *do* Things like democracy, markets, and community.

How might we enact such an invitation? How might we afford social bodies the creation of difference; encounters where subjects concretely engage with those aforementioned "cracks" in the here and now and by doing this learn to be affected by alternative foodscapes? Rather than answering that question myself I will let the respondents from the above case study do it for me. The question "How might we collectively nurture difference, in terms of how

we think about, and interact with, food?" elicited a number of suggestions: e.g., more (economic, social, political…) support for small-scale producers, urban gardens, hydroponics, and fruit and vegetable producers; less restrictive city zoning ordinances so people can (legally) have gardens, chickens, goats, pigs, bees, and the like; more so called cottage food legislation (laws making it legal to sell homemade foods); more funding for experiential learning programs in our schools and neighborhoods; more just labor laws, tax systems, and economic policies that enable people to freely co-experiment; better enforcement of anti-trust legislation; and the breaking free of food desert policies that assume a one-size-fits-all solution, namely, the opening of a big box store (often a Walmart in the US) in the community in question.

For a paper contributing to a symposium on food security I am aware of my relative silence on the subject. But that is only because it is not enough to know food security. My aforementioned "silence" on the subject is only to emphasize this point. That is where conventional approaches to the subject fall apart, assuming it is something that can be counted (e.g., yields, percent of annual disposable income spent on food per household, etc.) and unproblematically grasped through words. This paper is deeply interested in the enacting of prosperous, affording food systems. What they might look like is important. Equally important, however, is how they *feel*.

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