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Complex Carbohydrates: On the Relevance of Ethnography in Nutrition Education

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Twelve months into ethnographic fieldwork in Guatemala, I returned to New York for the week of Christmas. Before my departure I made an offer to a friend whose younger brother had, several years earlier, travelled from their rural K'iche' community to the United States in search of work and had been relying on intermittent and unpredictable construction jobs in Manhattan ever since. If my friend wanted to give his brother a gift, I would deliver it. It was no trouble; my trip would take me less than a day and my own bags were empty. On the day I was to leave I had heard nothing from my friend and assumed he had dismissed my offer. But late into the evening, just before departing for the bus that would descend from Guatemala's verdant highlands to the international airport in the capital five hours away, he arrived at my home with what he told me was the 'perfect gift.' I opened the bundle he handed me to find ten loaves of *pan dulce* (sweet bread). Each one was carefully stored in its own plastic wrapping, having been baked by his mother that afternoon.

Shortly after landing in New York, I met the brother beneath icy skyscraper scaffolding in midtown Manhattan. He greeted me shyly but when I handed him the package an eager smile

spread across his face. He seemed to be no longer aware of me as he tore through the plastic, split open the crust of one of the loaves and, transfixed, buried his face against the soft texture of the bread, eyes closed, inhaling deeply. Some moments later, he glanced up: ‘It has been years since I have tasted this—not just bread from my town, but fresh bread from my town, bread that has been formed by my mother’s hands. This is the best gift I could have received.’

Energetic equivalencies

At the time, I was studying a process that scientists call ‘the nutrition transition’, which refers to a growth in rates of dietary-related chronic diseases in regions around the world that have been long dominated by infectious illnesses and underweight malnutrition. Against a background of increasing concern over obesity in Guatemala (Groeneveld, Solomons, & Doak, 2007), bread was a main topic of conversation in the clinics and classes where I carried out fieldwork. Countless doctors advised their patients to avoid the kind of bread my friend’s mother had baked. This bread was too sweet; when ingested this sweetness would transform into fats and be stored by a body that would become too large if this was done too often. They explained that this bread was made of a substance called carbohydrates, which are ‘our source of energy’ until they make us overweight.

To minimize consumption of carbohydrates, doctors commonly advised their patients that sweet breads should be substituted with whole-wheat bread, which had fibre that would slow the rate of sugar absorption, create satiety, and help with weight loss. Whereas bread—a Catholic staple—had augmented the regional mainstay of tortillas for centuries, and family-run *panaderías* selling bread cheaply could be found on nearly every city block, whole-wheat bread

was sold only in supermarkets or chain bakeries that produced it off-site and sold it at a premium.

‘Yes, this is more expensive,’ doctors would acknowledge, ‘but the price you pay now will be offset by how much you will save in the future.’ The calculations they expected their patients to make were not only those of nutrients— more fibre! Fewer carbs! They also expected patients to weigh the pleasure of the moment against the prospect of future health as though these were objects that could be clearly added and subtracted from one another. The following examples of nutritional advice, drawn from my 16 months of intensive fieldwork in nutrition and health clinics in the highlands of Guatemala (Jan 2008-May 2009), reflect typical ways in which doctors would discuss eating bread with their patients:

Example One:

Doctor: For the moment try not to eat things with fats. Instead you should eat fruits, but not too much fruit. If you eat too much you will become sick because even though fruit is good if you eat too much it will make your blood sugar levels rise. Do you eat whole-wheat bread? Are you used to eating this?

Patient: Which kind?

Doctor: Whole-wheat.

Patient: Regularly? No I don’t eat this.

Doctor: You eat French bread instead? Well the truth is that you should be eating whole-wheat bread. Do you not eat it because you don’t like it?

Patient: Yes, I don’t really like it. It’s a bit gross.

Doctor: But it’s not gross, it’s good for your body.

Patient: Well, if it’s good for my life (*para mi vida*), then I have to eat it.

Doctor: Very good. You’re going to find that it will improve your health and you’ll start to like it.

Example Two:

Doctor: You need to start eating less each day, okay? Do you regularly eat three tortillas with meals?

Patient: Yes, three tortillas.

Doctor: Well, you’re going to need to start eating two.

Patient: Ah, okay.

Doctor: So, for example, if today I ate three tortillas with breakfast, well tomorrow I'm going to only eat two. We'll start with this, but we need to keep reducing the quantities, do you see? This way you can start losing weight.

Patient: Okay.

Doctor: And it is even better if you can substitute your tortillas with what is called whole-wheat bread. You get this at the supermarket.

Patient: It's expensive!

Doctor: It will be more expensive at first, but it will save you money over time. You see, the other kinds of bread have fat in them—they have oil and they have lard and these make you heavy. But whole-wheat bread will keep you healthy.

Patient: Okay, doctor.

Example Three:

Doctor: As for sweet breads, it would be better if you stop eating them. Sweet breads and the regular breads you buy in the market, you should stop eating these. Instead, just whole-wheat bread. The kind you buy at the supermarket – this you can eat since it has fewer carbohydrates. It's also better if you stop eating cakes, French fries, fried yucca, *camote* (a kind of squash), or *malanga* (a tuber cooked like potatoes). None of these you should eat—they have too much sugar and when you eat them the sugar accumulates in your body where it produces fat, you see? It's also better that you don't eat anything canned – it will be better to eat fruits and vegetables instead.

Patient: Okay, fruits and vegetables and whole-wheat bread. Anything else?

Doctor: When you eat fruits, it's preferable that they are not prepared with sugar. Also no juices – only drink juices that are natural. You need to do this so that you don't gain weight. This will help you to be healthy. And you need to do more exercise. This will also help control the fat in your body. When you do more exercise, then you can eat more fats, sugars and carbohydrates.

In the examples above, we see how variegated possible valuations of eating become compressed into clear-cut dietary guidelines (good and bad), which themselves frame food and bodies in mechanistic terms as the consolidation of discrete components (fats, sugars, or carbohydrates). The doctors' advice is premised upon the idea that foods and bodies can be broken into parts that can then be summed together, much like currency, to make a whole (either a whole food or a whole body). The quantitative underpinnings of this logic, with their strong resonance with market exchange, are also pervasive in how the doctors frame dietary motivations. Just as these doctors treated body weight as a function of energetic credit and debt—one bowl of cornflakes offset by half an hour on a treadmill—so did they expect their patients to balance the costs of immediate appetites against the benefits of potential future savings. Built into their counselling

was the presumption that eating was commensurate with moving, each reducible to the unit of the calorie, akin to the way in which the value of present or future health could be converted into price. The bread they spoke of was abstracted into nutrient components—carbohydrates, fibres, fats—that would have a measurable and predictable impact upon the body. There was no space in their discussions for the bread held by my friend’s brother—bread that was, for him, inextricable from kinship and community, bread that he smelled, felt, and tasted, bread that he related to a form of nourishment that had nothing to do with nutrients.

In an influential article on the process of ‘nutritionism’, sociologist Gyorgy Scrinis connects abstraction like that in the doctors’ discussions to an ‘increasingly functional approach to food and the body,’ which ‘obscures the broader cultural, geographic, and ecological contexts in which foods, diets, and bodily health are situated’ (2008: 42, 44; see also Aphramor et al., this volume). Yet, a multitude of reasons exist for why diverse meanings become compressed into numerical units. One claim I heard often was that counting created accountability.¹ Whether it was counting calories on the part of people who were dieting, or counting dollars on the part of public health institutions working to remain fiscally solvent, several doctors I spoke with suggested that translating behaviours into numbers would lead people to act more responsibly. Underlying the calorie counts that they advocated was the idea that when it came to eating, making quantities of consumption appear in the tangible form of measures would give people more control over what they ingested. The abstraction and externalization of the otherwise intimate and internalized process of eating would, according to this logic, make it easier for

¹ For further reading on the conflation of valuing and accounting see especially Nelson (2010), Maurer (2002), Dunn (2005), and Garfinkel (1967).

people to control the physiological drive to eat more than was in their long-term health interests.² Whereas they saw bodily knowledge and desires about hunger and satiety as too personal and too contextual to be trustworthy, they held that a reliance on numbers, which could be evaluated by disinterested parties, encouraged the discipline of responsibility (see also Porter, 1995).

Another reason why doctors and health educators advocated for the translation of eating into numerical units was that global health programs, which sponsored the existing locally-implemented metabolic-illness treatment plans, did not have resources to respond to nuanced frameworks of health and nourishment. When food is imagined to be composed of interchangeable and equivalent parts it becomes comparable across time and between diverse national and ethnic groups. Historian Nick Cullather (2007) shows that the adoption by the world health community of a ‘universal currency’ of calories and nutrients following WWII allowed relatively small organizations to cover tremendous international terrain. Indeed, the United Nations-affiliated Guatemala City based Institute for Nutrition for Central America and Panama (INCAP) was founded in 1949, and has since disseminated uniform nutritional guidelines based upon numeric quantities throughout the country.³ Given that public health infrastructure in

² Philosopher Annemarie Mol (2011) writes that a dominant repertoire of nutrition science is one of moderation, or thrift, in which the human body is depicted as greedy, and where limiting caloric intake by counting calories is a necessary means through which to restrict this greed. She offers ‘satisfaction’ or ‘pleasure’ as another way to relate to eating, but suggests that this is often avoided because of Christian associations between pleasure and sin.

³ Sociologists Stefan Timmermans and Marc Berg write that techniques of standardization developed in the beginning of the 20th century responded to a growing interest in scientific and technological progress. By the 1980s, standardization’s appeal lay in ‘the ideology of the free, global market’, and standardization practices rode on the coat tails of a wave of interest in globalization (2003, p. 12). The vision of INCAP and the number of other international health centres that were developed following WWII complicates their timeline of the history of

Guatemala is dwarfed by need and that more than two-dozen linguistic and ethnic groups live within the country's mountainous topography, many nutrition programs in Guatemala have consolidated otherwise diverse meanings of food and eating into easily comparable values such as calories or carbohydrates. This consolidation allows the newly formed values to travel, expanding beyond the relatively small and specific sites at which the calculations were initially generated and thereby affecting a much larger audience.

The same reliance on reductive metrics that I saw within public health programs was also adopted by food companies in Guatemala as a strategy for selling their products. Just as Guatemalan public health programs sought to disseminate their information broadly, multinational food companies also aimed to distribute their goods across varied audiences. Rather than reflect local variations, they used generic slogans so that the same food and weight loss advertisements appeared in rural and urban settings (as well as across international boundaries). Several public health officials with whom I spoke during my fieldwork complained that these businesses were employing a focus on 'nutritional health' in their advertisements for reasons that they felt had little to do with nutrition. One senior INCAP employee summarized a shortcoming he saw in public health reductionism as follows: 'A problem with creating generalized obesity prevention programs that cover an entire population is that we end up with ideas about health that can be easily co-opted and transformed by the food industry.' He noted that the standardization of heterogeneous eating practices into easily mobile nutritional guidelines might allow for underfunded public health centres to expand their reach. But simplistic nutritional advice – such as '50% fewer calories!', 'Less fat!', 'More nutrition!' – also creates effective

standardization as these centres combined both a drive for scientific and technological progress and a vision of global unification.

slogans through which food companies can package and sell a wide-range of products as ‘nutritionally healthy.’ The concern that he and others expressed was that the association of health with the consumption of particular low-carb’ or ‘high nutrition’ products would silence ideas about health that could not be easily reduced to the sound bites provided by these metrics (see also Yates-Doerr, 2012).

The INCAP employee quote above articulated a challenge implicit in much of the work and research about nutrition. On one hand, there exists the need to create knowledge about food that can be easily transported from one site to another, as seen in efforts to build strong public health programs, expansive advertising campaigns, or scientific food standards. On the other hand are the intersecting, overlapping, and variegated ways in which people value food in their daily culinary practices. In order to expand beyond always-situated life engagements in order to create knowledge that was generalizable, nutrition scientists would employ techniques of abstraction where human eating interactions – the ‘why,’ and ‘how’ people do what they do with food – were translated into measureable variables. By, at least temporarily, fixing information about food into a variable, eating interactions were ostensibly made transportable. A premise of this approach is that what people do with food can be accurately studied through analysis of these variables, as though shifts in contexts will not alter the variable itself. Another premise is that it is possible to account for enough aspects of human interaction with food to create meaningful models for health and weight loss. During fieldwork, when dietary approaches failed, it was surmised that certain variables of dietary life were not taken into consideration or adhered to, such as the patient had eaten three tortillas instead of two, or a food that should have been treated as unhealthy had been treated as healthy. The problem was seen to lie in the specificities

of the guidelines and not the process of guideline-making itself. After all, the language of metrics and numbers was treated as value-free; it represented values, but it did contain them.

It is useful to pause here to consider the argument made by philosopher of science Helen Verran that numbers serve as ordering devices that do not, on their own, have either universal effects or negative connotations (see especially 2001). She suggests that because there are many ways of counting, it would be a mistake to assume that numeracy necessarily connotes a particular way of valuing; indeed, a dangerous sleight-of-hand can occur when practices of ordering and practices of valuing are taken as equivalents (2011). Borrowing from her writings, I might argue that the counting of nutrients or calories is not itself a coherent practice and because this counting can take numerous forms, the resulting ‘calories’ or ‘nutrients’ have heterogeneous, non-uniform meanings. To an extent, this argument is fitting for my fieldwork as people tended to reinterpret and transform the ostensibly uniform quantitative dietary standards with which they were presented. Nonetheless, I saw that the equations underlying many international nutrition guidelines *did* have the effect of condensing diverse ways of relating to food and eating into uniform practices. Though number-based dietary health ‘standards’ would inevitably have variable and unpredictable effects when put into practice – effects that I will explore in more detail below – the advocacy of dietary standards also had homogenizing and harmful consequences.

In the following explanation of carbohydrates given by a health educator to a classroom filled with rural highland women, we see how diverse eating practices become framed through a language of energetic equivalency, where the effects that food has upon the body are both quantifiable and controllable. Also notable are the ways in which eating is situated through a system of measurements. During this lecture the educator stood in front of a diagram illustrating

the ‘seven steps for healthy eating,’ which gave indications of appropriate portion-sizes: meat—at least once a week; dairy—at least twice a day; and vegetables, fruits, grains, cereals, and potatoes—every day; sugars and fats—in moderation. She said:

Some foods have what are called carbohydrates. Perhaps you aren’t familiar with this term, but carbohydrates are our source of energy. If you don’t eat them, you won’t be able to get up. You won’t be able to accomplish anything in the day. You won’t be able to run. You won’t be able to do your work. You won’t be able to care for your children, even. So we need to eat these things in order to have energy.

In this narrative food is reduced to one of its component parts – the carbohydrate – which is presented as having a predictable, measurable, and cumulative effect on the human body. To carry out daily life functions one must ingest appropriate amounts, with the failure to do so resulting in an inability to accomplish daily activities. The logic here is mechanistic; the body is imagined as a motor, with food playing the functional role of fuel. Historian Anson Rabinbach connects the prevalence of mechanical metaphors for describing the human body in the early 20th century to a vision of labour in which the self was also understood to be ‘objective, measureable, and above all, conquerable’ resulting in increased efficiency and ultimately in increased economic productivity (1990, p. 21). Framing the body as a motor implies that people do not eat for joy or relaxation or because food tastes good or because eating is a means of relating with others. Instead people eat because there is a monetary payoff. As the nutritionist above instructs her audience, eating provides the energy to do one’s work and to accomplish something with one’s day.

From this quote alone we can know little about how people responded to this style of advice. In the case of this class, and others like it, the audiences mostly remained silent, the efficacy or effects of the instructors’ training hidden from the anthropologist-observer. But I saw in my

additional fieldwork in medical clinics and while living with Guatemalan families – some for several months at a time – that many people became confused and preoccupied with the project of learning to eat by balancing energy input with energy expended. I often had women with far more cooking experience than I had turn to me for advice on how to prepare foods for themselves and their families. They never asked me about how to make eating enjoyable; they wanted to know how to make properly calculated meals – not too much fat, or sugar, or carbohydrates, the right amounts and kinds of oil – that would result in ‘healthy’ foods, healthy bodies, and ultimately, productive lives. In the following conversation about eating bread that took place between a nutrition educator and a patient, we can see the insecurity generated by this focus on nutrients.

Educator: Do you ever eat cereals?

Student: No.

Educator: Bread?

Student: Because they said that sweet breads were bad for me, French breads are all that I buy.

Educator: Now you only buy French bread?

Student: Yes, only French.

Educator: And how many times do you eat this during the day?

Student: Just three times a week.

Educator: And how much do you eat when you eat this?

Student: Just two little pieces.

Educator: Two?

Student: Yes, I’m afraid to eat this because I’m not sure if it’s okay to eat or not.

Educator: It’s sweet breads that you shouldn’t be eating.

Student: Yes, I don’t eat sweet breads.

Educator: Well, you really shouldn’t eat French bread either. The best is whole-wheat bread. It has the fewest fats and carbohydrates. It also has the most fibre.

Student: Okay. I was afraid I was making a mistake.

Educator: Ask at the supermarket about this bread. You’re going to see that it’s going to help you feel better and have more energy.

Student: Did you write it down?

Educator: Yes.

Student: I’m afraid I’ll forget. I want to do it correctly.

In the above conversation the educator consistently reframes correct dietary behaviour as a matter of quantities: times per week, slices per episode of consumption, and levels of nutrients per

slice. Also apparent is the student's anxiety in the face of these standardized regulations. When she does eat bread, she remains unsure whether it is harmful and as a result she eats it with fear. Though she expresses a desire to comply with what is 'correct', her uncertainty about what the rules are and how to follow them is also apparent.

The following exchange between a nutritionist and a woman who has registered as overweight (on the basis of her weight and height measurements and global health guidelines for normal weights) illustrates how this uncertainty about how to best follow dietary standards can, in turn, shape dietary practice. In the woman's case she has responded to confusion by skipping meals and by attempting to reduce both her overall caloric intake and the foods with fat in her diet. Note that following the nutritionist's suggestion to focus less on the guidelines and more on finding changes to her habits that might be sustainable, the patient nonetheless reiterates the importance of the standards.

Nutritionist: What do you usually eat through the day?

Patient: Mostly fruits and vegetables. No chicken, nothing with fat. I love milk, but I can't afford low-fat milk so I haven't been drinking milk. I've dropped a little weight, thank God.

Nutritionist: What is your eating schedule like?

Patient: Usually I skip breakfast or have, maybe, just a bit of coffee—

Nutritionist: Oh, that's not good. It's better to eat about six times a day so that you stay satisfied throughout the day. That's what we're going to recommend.

Patient: Okay, but I don't want you to make me fat. I need to lose weight—twenty pounds.

Nutritionist: We can give you recommendations to help with this, but it's important that you eat during the day so that your energy levels don't drop.

Patient: But I want to lose more weight than I have. I want to be in the normal weight range.

Nutritionist: Try not to worry about your weight. It's more important to change your habits in a way that you can maintain over time.

Patient: Okay, but I have twenty pounds that I have to lose.

Nutritionist as ethnographer

So far in this chapter I have demonstrated how lived experiences of eating and dieting become circumscribed into calculative, metabolic equations from which dietary standards and guidelines

emerge. I have further illustrated that these equations can have harmful effects, circumscribing diverse valuations of food into confusing regulations and guidelines. The realm of cooking and eating, which has otherwise been a domain of women's expertise, becomes a realm of insecurity and anxiety. This is, however, not the end of the story. Although many of the people I met presumed that dietary equations would have predictable and controllable effects upon the body, I also encountered a failure of metabolic calculations to achieve their ostensible ends. I saw time and again that dietary practices could not be contained within the mathematical abstractions typical of weight loss protocols (fewer carbs! more exercise!). Instead, dietary practices contained an innumerable 'excess' that rendered these guidelines ineffective. The guidelines were there but people, including several nutritionists who might have otherwise enforced the guidelines, worked around them.

While standards can create both accountability and transportability, thereby expanding the reach of public health nutrition programs, several of the educators I worked with were exasperated with standards. I have written about these educators elsewhere (see especially Yates-Doerr 2012b), but it is useful to clarify that many of Guatemala's nutritionists are closely (inter)connected to people suffering from metabolic illnesses. I worked with numerous nutritionists who were just a generation removed from the poverty of the rural countryside and who remained attuned to the difficult economic conditions faced by many of their patients (and their relatives). They were aware of the gap between public health protocol and what I have termed 'nutrition-in-action' in an attempt to underscore how different the lived experiences of nutrition are from the calculative rationality that seems to define it. The widespread failure of metric-based diet programs—a failure determined by persistent illness and weight gain as well as by mounting frustration with treatment strategies and patients' subsequent disappearances from

clinics—made many of the educators that I met sceptical about the value of these measures. One health worker explained this to me as follows:

We have the relatively new concept of ‘the diet,’ which is based entirely upon eating foods in correct portions and eating a certain number of calories a day. Today everyone is becoming familiar with the idea that ‘to eat well is to follow a diet.’ People think that if you can measure out a proper diet, then you know about eating well. But following a diet doesn’t necessarily lead to healthy eating and we are focusing too much of our training on following diets. If a diet is failing, if someone isn’t losing weight or if their blood sugar levels stay high, we try to adjust their portions and the calories in their meals. But eating food in proper portions is not synonymous with eating well. It seems easier to teach dieting in 30 minute sessions, and right now this is where a lot of our energy is directed. But a lot is missing when we do this. So many people leave nutrition consultations with diet sheets, but with nothing that will be useful in their lives.

In contrast to the mathematical underpinnings of caloric formulas, which abstracted bodies from place and time (as well as from familial engagements of eating), many nutritionists sought to develop treatment strategies that emplaced bodies in their surroundings, recognizing the myriad ways in which commensality—the socio-material practice of eating together—defied the calorie’s pretence of commensurability.

For example, despite the financial limitations faced by one of the nutrition clinics where I carried out research, its director was working to develop nutrition services that extended well beyond the technical qualities of different foods. He held that nutritionists needed to know about financial matters, inter-family relations, dietary preferences, daily routines (be they routines of work, exercise, or leisure); they also needed to know intimate details of their patients’ histories,

about the communities where they lived and their religion, and about the various anxieties that they grappled with in their lives. He explained the need for expansive services to me saying, ‘If you want to encourage good nutrition you can’t just talk about what people are eating. You need to address entire social, political, and economic systems.’ He held that this, in turn, required not a dependence upon the dietary surveys or body weight measurements that were typical of nutrition consultations, but the development of long-term rapport between nutritionist and patient. I should point out that this rapport was also necessary for learning about relationships with materials: Did patients have enough burners and pots to make separate meals for themselves? How might they make coffee without adding sugar to the pot? Did they take buses to work, and how far were the stops from where they lived? Could they afford the Tupperware necessary to pack themselves food when they were away from their kitchen? What was their means of refrigeration at home, if any? Echoing the director’s interest in far-reaching services, another nutritionist I spoke with emphasized the need to move away from ‘the quick-solution mentality that pervades much of nutrition education.’ She, along with several others I met, advocated treatment strategies that addressed the diverse contexts of eating, instead of those that focused on the mechanistic consumption of nutrients. Time and again I was told that in the realm of nutrition, simplistic solutions such as calorie counts or portion size guidelines did not only *not work*, but they made patients’ lives worse by adding a feeling of failure to the frustrations of poor health and weight gain.

I was often struck during my fieldwork at the parallels between the role of the ‘good nutritionist’ and my own training in ethnography. When confronted with the heterogeneous, incoherent multiplicities of life-as-lived, sociologist John Law asks social scientists the following question: ‘If this is an awful mess... then would something less messy make a mess of describing

it?’ (2007). Answering in the affirmative, he advocates research methods that aim not to create order out of observable mess, but to participate in and relate with the social world(s) that this research simultaneously helps to bring into being (see also Law & Urry, 2003). This vision of research method resonates with the performative and reflexive turn that anthropology took in the 1970s and 80s (see especially Geertz, 1973; Marcus & Clifford, 1986; Martin, 1987; Rosaldo, 1989) and which continues to situate ethnography as a research technique that trades the shortcuts of surveys and statistical standards for the intimacies of relational commitments. As geographer Sarah Whatmore views it, ethnography does not seek to collect data about and then report on a world that remains “out there;” it is, instead, always both an intervention in the world, as well as a means of ‘working together with those whom we are researching’ (2003, p. 90). The aim is not distanced or detached description; as with nutritionists, whose expertise was contingent upon the engaged participation of their patients, any expertise an ethnographer gains is done so in collaboration with those around her. Just as the most sensitive nutritionists I worked among did not seek to adopt their patients’ lives in order to develop relationships with them, neither do we aim to become the people we work with. Instead, we strive for interference – increasingly recognized to be not only an unavoidable outcome but a *goal* of ethnography⁴ – by bringing together, but not dissolving together, multiple voices, actors, forms of expertise, and fields of experience.

By the time I began my fieldwork, I had already spent seven summers in Guatemala. On the basis of preliminary research and the steady stream of global health reports and evaluations I

⁴ The notion ‘interference,’ as employed by Haraway (1992), comes from physics where it is used to talk about two sound or light waves that, as they come together, make a complex pattern. For more on the theme of ‘making interferences’, see the recent special issue in *Current Anthropology* on engaged anthropology, edited by Low and Merry (2010).

was reading, I expected to find a field dominated and overwhelmed by metrics. But although metrics were everywhere, I began to see while living and working with people who were grappling with what had only recently become a problem of ‘too-much’ weight how often these metrics were reinterpreted or altogether ignored. Weight—a word whose meaning might seem inextricable from the abstraction of numbers—was in practice situational, context-based, at once in and beyond an individual body. While nutritional protocol and guidelines typically focused on the *Indice Masa Corporal* (Body Mass Index), the *masa* of concern outside clinical protocol was the soft corn dough of tortillas, which mattered in ways that quantitative representations of weight did not. As the field of global health that I was studying was seeking to make clearer standards, many of the people I lived among were advocating, often in quiet ways, the importance of complexities—of staying with them, rather than trying to reduce them away.

Conclusion

I began this chapter with the story of a gift to highlight the significance of that which cannot be precisely measured, even in the midst of a caloric system that appears to operate within the clean balance of numbers. When I delivered the bread in December 2008, the power of a market logic, that was based on a system of monetary credit and debt and which loomed large in the Manhattan skyline where my friend’s brother and I stood, was also collapsing around us. It was encounters and contexts like this that helped me to understand, when I turned to write about my fieldwork, what was needed from my own analysis. To tell the story about nourishment and fatness in Guatemala that I wanted to tell, a story that would honour the experiences of those around me, I would need to stay close to those occurrences of social life that could not easily be spoken, let alone fixed into formulas. I would need to point towards the pleasures of eating in a way that would not explain these pleasures away. I would need to not just make room for what

might be called the ‘excess’ of the tastes and sentiments of social life, but to illustrate that these supposed excesses were everywhere. Rather than highlight the moral economies of eating and dieting, I would have to show that the calculative logic implicit in the idea of economy might hide more than reveal. Indeed, even when it came to something as apparently quantitative as weight, to speak of economies might not make any sense at all.

Dietary standards, which might have seemed transparent, neutral, and easy to follow from the quiet confines of a doctor’s advice within the nutrition clinic, became much less straightforward when confronted with mobile, overlapping, and often-conflicting desires of eating in everyday life. After all, it is easy to care about calorie-amounts and carbohydrate-levels in a setting where weight-loss is an obvious goal. It is more difficult for these measures to remain meaningful when confronted with other ways of valuing, including the various obligations and pleasures of kinship, and the longings and satisfactions of eating that are so often connected to our kin.

Standards work by stabilizing. Operating as a recursive practice, they constrain active phenomenon while simultaneously dictating the behaviours necessary for achieving the narrowly-defined dimensions of these constraints (Star & Lampland, 2009, p. 14). And yet life, in its varying socio-material forms, will not be stilled. In spite of the ways in which standards seem to make differences cohere – to smooth the rough edges of variation into generalizable guidelines and normative ideals – the apparent uniformity that results from these standards remains elusive. Though standards will travel globally, and though they might, at first, appear to be everywhere the same, they remain, much like the tastes of various kinds of bread, situated within the localities in which people come into contact with them, where they are put into practice.

All too often, discussions of ‘why we eat’ are predicated on the idea that a range of factors motivates behaviour: the food eaten is cheap; it tastes good or healthy, or decadent; the eater is hungry or anxious or tired or bored or celebrating; the eater wants to share in the consumption of substance with family; the eater wants to isolate from others; and so on. For any given situation, when analysed against one another – that is, when added together on a causal scale – some of these factors will emerge as strong while others will disappear as weak; what remains from this summation is an explanation for the question of ‘why.’ Yet as my work with nutritionists, and the orientation of ethnography itself, make increasingly apparent that any direct answer to the question of ‘why we eat’ would be misleading; we cannot sum various motivations and causations for eating together into an understanding of what people do with food. The reasons are not just multiple across varying contexts, but are multiple within any given context, and this multiplicity also illustrates that such a thing as ‘any given context’ also falls apart. My interactions with nutritionists and patients who were exhausted with the calculative, functionalistic logic of dietetics suggests that for reasons of both nutritional well-being and theoretical acumen we might ‘abandon the idea that offering an explanation is good for your health’ (Latour, 1988, p. 161). When considering why people eat, it would do us well to leave the terrain of causal explanations behind. Rather than imagine we can ever straightforwardly answer the question of ‘why’, we might instead seek to make differences visible —to hold them, without holding them still or compressing them together in such a way that they appear to disappear.

It is fitting, given the field of anthropology’s historic reliance upon the insights of those with whom we do fieldwork, that people around me were adept at valuing practices and knowledges that defied reduction and generalization. My friend’s decision to send his brother a suitcase filled with bread indicated that he was well aware of the importance of tastes and

pleasures that would never be stabilized into standards and indicators. For the field of global public health, where wellbeing is dominated by the numerical alchemy of measurement, the work of describing that which eludes measurement remains a challenge for (and an achievement of) ethnography.⁵ This challenge of depicting aspects of life that will never be fixed is not small, but the value of complexity underscores not only the importance of ethnographic knowledge but for its importance well beyond the domain of the social sciences.

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⁵ For further reading on the idea that numeracy operates with the sleight-of-hand of alchemy see especially Merry (2011) and Poovey (1998).

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