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Yates-Doerr, E.

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## Counting bodies? On future engagements with science studies in medical anthropology

Emily Yates-Doerr

University of Amsterdam, Anthropology, Amsterdam, The Netherlands

### ABSTRACT

Thirty years ago, Nancy Scheper-Hughes and Margaret Lock outlined a strategy for 'future work in medical anthropology' that focused on three bodies. Their article – a zeitgeist for the field – sought to intervene into the Cartesian dualisms characterizing ethnomedical anthropology at the time. Taking a descriptive and diagnostic approach, they defined 'the mindful body' as a domain of future anthropological inquiry and mapped three analytic concepts that could be used to study it: the individual/phenomenological body, the social body, and the body politic. Three decades later, this paper returns to the 'three bodies'. It analyses ethnographic fieldwork on chronic illness, using a descriptive, practice-oriented approach to bodies developed by science studies scholars that was not part of the initial three bodies framework. It illustrates how embodiment was a technical achievement in some practices, while in others bodies did not figure as relevant. This leads to the suggestion that an anthropology of health need not be organized around numerable bodies. The paper concludes by suggesting that future work in medical anthropology might embrace translational competency, which does not have the goal of better definitions (better health, better bodies, etc.) but the goal of better engaging with exchanges between medical and non-medical practices. That health professionals are themselves moving away from bodies to embrace 'planetary health' makes a practice-focused orientation especially crucial for medical anthropology today.

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### Introduction

In my ethnographic study of the medical diagnosis of obesity in Guatemala, I was surrounded by the counting of bodies. People who arrived at the obesity outpatient clinic where I carried out fieldwork would find that body weight measurement was the first step of treatment. The medical scales were old and their counterweights would often stick, making them difficult to calibrate. It was also a challenge to stand on the scales' wobbly platforms, and practitioners sometimes did not entirely let go of patients' hands lest they fell. From where I sat at the side of the room, that the scale was measuring an interaction

**CONTACT** Emily Yates-Doerr  [ejfyd@nyu.edu](mailto:ejfyd@nyu.edu)

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between people was striking. And still, nutritionists would report the weight of a singular body. T.S. Harvey describes the arduous work that goes into establishing the figure of ‘the patient’ in western Guatemalan hospitals, where families show up to be treated (2008). Patienthood, he argues, is a learned (and not already-naturalized) illness role. In my time in the obesity clinic, I came to extend Harvey’s analysis, as I saw how ‘the body’ was a learned (and not already-naturalized) object of medicine. In the process of becoming a patient, visitors to the clinic had to be given a body; the scale’s number was a crucial step in making a treatable, patient body materialize where it had not been before (Yates-Doerr 2015, 2014b).

Clinicians then used the number to calculate body mass index (BMI), which allowed for a comparison between the patient’s body and a general standard of health – defined, by clinical protocol, as a BMI of 18.5–24.9. Charts hanging from the walls that labelled the desired BMI as healthy helped to legitimate this standard (see also de Laet and Dumit 2014). A scale, a calculator, a BMI chart, and a few quick calculations would allow clinicians to move from the patient’s weight, to her BMI, and from there, to the amount of weight her body needed to lose to acquire ‘health’.

The next step of treatment was to shift from the target weight to eating and exercise. Here, more counting was necessary. The most tangible outcome of the consultation was a list of permissible foods, organized into a table in which three meals and two snacks a day were outlined over seven days. Termed *receta* – meaning both prescription and recipe – this list itemized everything patients should eat during each meal of each day, according to (ac)countable calories and nutrients. Movement was also converted into a unit metric of exercise to be subtracted from the food calories. As the scale helped enact a bounded body, the prescription helped enact a bounded society by treating society as if it were a contained entity, to be measured and managed through calculations of eating and exercise. The prescription, if used correctly, would habituate (socialize) patients in a positive loop between society and the individual: a better individual would make a better society; a better society would make a better individual. For added emphasis, nutritionists would remind patients that their chronic illnesses were a burden on their family as well as on national debt. Whether the clinical focus was social or political responsibility, the treatment strategy started with and returned to bodies: you weigh more than you should; you should eat less and exercise more than you do.

This was an unfamiliar and often unsettling approach for many seeking treatment. It troubled many of the clinicians as well. Most patients were women who spent their days attending to food. They did not cook for bodies, but for diffuse and shifting collectives (Yates-Doerr and Carney 2016). Meals were served from large, communal pots. The number of people who gathered was not particularly important. Tortillas, prepared on the spot, could make any meal stretch. When women shopped, entangled in their concern for quantities was concern for histories. They paid attention to where foods were grown and who was growing them. To cook well was to care not only for eaters, but for the seeds and soils from which food came. Bodies – their size, the space they took up in the world, or how much they might be costing taxpayers – were not a necessary or common focus of attention.

This fieldwork summary introduces my concern in this paper: the anthropology of health has become too focused upon bodies. As I explain in the following materials, the premise that health is located in bodies underpins clinical medicine. I argue that instead

of assuming this frame of health as our own, medical anthropologists might instead explore how health materializes in clinical and non-clinical practices, leaving open the possibility that bodies may not always be relevant to health.

Three decades ago, the field of medical anthropology was set on a somewhat different trajectory. In a landmark paper, Nancy Scheper-Hughes and Margaret Lock took the innovative move of repositioning ‘the’ body as three: one individual/phenomenological, one social, and one political. Mary Douglas had earlier sought to undermine the dualism between the social and natural body, arguing that all natural bodies are perceived and constrained by social bodies (1970). Scheper-Hughes and Lock sought to further Douglas’ disruption of nature/social dualisms, while also giving attention to lived experienced and political domination. The three bodies framework offered *the individual, phenomenological body* (body #1), in which ‘all humans are endowed with a self-consciousness of mind and body, with an internal body image, and with what neurologists have identified as a “sixth sense”, our sense of body self-awareness, of mind/body integration, and of being-in-the-world as separate and apart from other human beings’ (1987, 14). It offered *the social body* (body #2) in which ‘the structure of individual and collective sentiments down to the “feel” of one’s body and the naturalness of one’s position and role in the technical order is a social construct’ (1987, 23). And it offered *the body politic* (body #3) to describe mechanisms of power and control exerted over individual and social bodies. The three bodies were held together by what they call the ‘mediatrix’ of emotion, which entailed feelings and cognitive orientations, public morality, and cultural ideology, and which was capable of bridging the individual, the society, and the body politic (1987, 28–29). Scheper-Hughes and Lock point the future of anthropology toward emotion, calling this *the mindful body*.

In addition to charting a ‘new epistemology and metaphysics’ of the body, they made an important interference into gender politics at the time (1987, 30). Bodies, with their obdurate needs, had long been treated as a matter for women – placing women, in Ortnner’s terms, ‘closer to nature’ (1974, 73). To make bodies social, to make them political, was to shake up vested categories. Their paper, which has been cited several thousand times, was a zeitgeist, opening up the field in productive ways. It continues to be assigned in medical anthropology courses throughout the United States and Western Europe, where students learn to think of ‘the body’ as three, while also learning to think of ‘the social’ and ‘the political’ in bodily terms.

Several decades later, what strikes me when reading *The Mindful Body*, however, is that the three bodies framework risks charting a path for ‘future work in Medical Anthropology’ along the contours of an object that might not be central to people’s own concerns for health. In response to the non-bodily schemas of health I encountered in fieldwork, I emphasize a different direction for medical anthropology. Following scholars working at the intersections of anthropology and science studies I make a case for an anthropology of health that is not organized by pre-enumerated bodies but which follows the practices by which health, in a broad sense of the term, is done. I should note that Scheper-Hughes and Lock, in addition to helping to found the field of medical anthropology, would also become important figures in the anthropology of science – each writing numerous books that unsettle the place of bodies in medicine, asking anthropologists to think medicine *beyond* the body (e.g. Lock and Farquhar 2007; Lock and Nguyen 2010; Scheper-Hughes 1992). This paper is not a challenge to their scholarship – which has been instrumental to

my own thinking – but to the uptake and endurance of the three bodies framework in medical anthropology. One aim is to centre forms of health that are not located in bodies; a second is to centre analytic techniques that do not claim to know how bodies are structured from the outset, but ask how – and even if – bodies materialize in practice.

### Methods (on influence and interference)

When Scheper-Hughes and Lock wrote their prolegomenon to medical anthropology, they were seeking to undermine Cartesian dualisms surrounding the split of mind from body and nature from culture. Of the many strands of theory they take up to rethink these dualisms, their paper does not engage with literature in science studies, where scholars were also wrestling with similar concerns (e.g. Latour and Woolgar 1979; Latour 1983; Traweek 1984). The practice-oriented approach being developed in science studies did not seek to produce taxonomies (e.g. three bodies) but to study the effects of taxonomic practices (see Star and Griesemer 1989). Rather than outline pre-established heuristics through which to analyse world's (social or natural) reality, science studies scholars were asking – and continue to ask – that we pay attention to the heuristics, techniques and processes through which realities are made to matter. The strategy is not to necessarily refuse – or, as Salmond (2014) artfully put it, *re-fuse* – the Cartesian split of body from mind, but to examine how minds and bodies are done in practice (see Akrich and Pasveer 2004; Mann et al. 2011).

A tenet of a practice-centred approach is that the world is not 'out there', but that worlds materialize through practices. In *After Method* (2004), John Law notes that method typically conjures up the quantitative realm in which an analyst reports upon an external world. Even in the case of participant-observation anthropology, methods sections offer a number of people interviewed, a way of coding data, or how many months were spent in the field. Anthropologists frequently use these numbers to stake a claim to legitimacy; the numbers put measurable distance between observer and observed to guarantee that data is trustworthy, replicable, and accurate – a set of qualifiers that notably also accompanies the authority of the scale's measurement of body weight. Law's critique is that this standard approach to method fails to account for the powerful truth that methods perform (bring into reality), what they purport to describe. The broad and generous methods that practice-oriented approaches are 'after' are those capable of recognizing the interventions and interferences they make – not those demanding independent replicability.

Whereas the anthropological technique of 'thick description' risks treating language as a means for accounting for the world, the practice-centred approach to science studies foregrounds the performative effects of language, and, in so doing, treats the researcher's languages among the practices that merit analytic attention. Hans Harbers' characterizes the practice-centred approach through the term 'rescription', explaining that rescription emphasizes claims-making as an act of participating in a practice of worlding, as compared to description, which seeks to render the world in a neutral or objective fashion (2005; see also Pols 2015).

A rescription is more than a re-description, i.e. a new description of an unchanged reality. Rescriptions do actively intervene into realities and therefore are not normatively neutral. [But] rescriptions are not normative in the traditional, judgmental sense []. Rescription is not a second-order justificational activity from the outside, but a first-order, participatory activity from within. (Harbers 2005, 270).

In this paper, I put insights from a practice-oriented approach of science studies into conversation with medical anthropologist's longstanding concern for the 'three bodies'. To do so, I offer two descriptive vignettes drawn from my fieldwork on chronic illness in highland Guatemala. In the first, I detail practices through which nutritionists socialize the body along normative and prescriptive lifestyle habits, treating the individual body *as if* it were an embodiment of society. The second, details an afternoon shopping trip with a woman with diabetes, where bodies hardly figure at all. I juxtapose these vignettes to highlight that medical anthropologists, by traversing medical and mundane spaces – moving in and outside of clinics – are in a unique position to contribute to scholarship on health. Instead of adopting the methods or goals of medicine and public health as our own, we might show how these methods and goals supplement, change, or fall short of the kinds of health people actively work towards outside of clinical spaces. I conclude by suggesting that careful attention to translational practices – a skill we might call *translational competency* – shifts the purpose of our research away from generalizable description of bodies and toward situated engagement with what bodies are made to be, leaving open the possibility that bodies do not figure at all.

## Health, in practice

### *Vignette 1. Inside the clinic*

'It is very important to change your dietary habits [*los hábitos alimenticios*]. The first days will be the hardest. But if you stick with it, it will get easier. At first it will take considerable effort, but it will not always be so difficult. It will become natural. You should be aware that this is a slow, slow process. Results do not happen overnight'.

I am in a clinic listening to a health educator give advice to Lizbet, a woman with diabetes. The educator has already weighed her, calculated her BMI, and given her a sheet listing permitted (low sugar/low fat) and prohibited (high sugar/high fat) foods. The educator has warned Lizbet that she lives in a dangerous environment, where foods that are not good for her will tempt her. Now the educator is giving her advice on how to follow the prescriptions. The educator wants to teach Lizbet to use the steps of the prescription to socialize her body, habituating it to make better decisions.

'You need to add exercise to your routine. You should try walking during the day. It's going to be slow and difficult' the educator explains, 'but over time it will sink in'.

Lizbet responds to clarify that she already walks: 'Ma'am, for the job I have, well all I do is walk. I walk from one place to another. Sometimes it seems like I spend my whole day walking'.

The educator nods as if in approval, but her spoken response reframes exercise as something that extends beyond physical activity, also entailing the thoughts and intentions undertaken during movement. 'When we are working we are often busy and anxious. But when we walk for exercise it should be a time to let our minds clear. So what you should try to do is take a half an hour—'.

'A half an hour?' Lizbet interrupts to ask.

'Yes, a half an hour. Separate from work. It's important to take time just to walk, to relax from your day', she says. 'You should take this time for yourself. Focus on yourself. Not your job, not your family. Try to calm yourself'. She adds the promise that this will help her diabetes. And then the educator offers a common refrain,



You see, you must change your habits. Eating is learned. You have to relearn how to do it. The idea isn't to just do this for a month, but to change your lifestyle (*estilo de vida*). The social conditions you live in are harmful. If you don't make these changes you won't just be dealing with diabetes. It will turn into other illnesses as well.

The way this nutritionist encouraged Lizbet to become concerned about embodied movement, training, and habituation was a common technique of nutrition education. Educators frequently made reference to the importance of adjusting habits, encouraging people to 'get used to' (*acostumbrarse* – or, literally, to adjust one's customs) subtle shifts in lifestyle. They cautioned that 'social factors' (*factores sociales*), which included foods people had access to, the transportation they used to get to work, the kind of jobs they held, and the safety of their city, influenced how they ate and moved and, with this, their body weight. Take, for example, doctor's advice in the health section of the local newspaper,

Eat slowly and enjoy it. The stress and the busy pace of life obligate us to rush through our food quickly, often causing us to overeat. This is an unhealthy habit to get into and can trigger a number of problems. Experts emphasize the importance of eating slowly and making mealtimes a ritual in order to eat a smaller quantity of foods and in this way control your weight. Your body will thank you for this.

Lizbet left the consultation holding a prescription that was intended to help her change when and how she moved and what and how she ate. She was among the many people – now patients – encouraged to care about embodied lifestyles. It was a core lesson of the clinic that through the practice of re-socialization patients could change their bodies and their lives.

### ***Vignette 2. Outside the clinic***

I run into Gilda on the street as she is headed to the market. 'You must need groceries with those growing boys of yours', she says, nodding at the baby asleep in a sling on my chest. I reply that I do. 'Good, we'll go together', she responds.

I ask her how she has been. Five years ago, I lived with her for several months. Though I have visited her at her home several times since my return to Guatemala, this is the first time we have been together (nearly) alone. She says she has not been well. I have also seen this in her eyes. The right one is noticeably pulled down at the edge, much lower than her left eye, giving her face an asymmetrical appearance. I wonder if she had a stroke and ask if something particular happened. She shakes her head, then says, 'My vision is often blurry'. She adds to this, 'You know how it is with me', making implicit reference to her long-time diagnosis of diabetes. I wait for more, but she falls silent and I do not press her.

At some point, I step off the sidewalk so I can walk beside her. She is so much thinner than when I lived with her, but the grip of her arm is strong and she easily pulls me back up. Trucks and busses pass frequently, leaving trails of thick dark exhaust behind them. As I fall in line behind her, I wonder which of their dangers she is protecting me from.

Because shopping was once part of my fieldwork, I have made the trip to the large open-air market with Gilda too many times to count and the activity is familiar. Almost everything we buy has been grown in the valleys that surround the city. She knows the vendors and she talks with them about the food as we shop. She touches and smells the produce, tapping into expertise I do not have. A woman breaks apart an avocado to show



us what is inside as we pass her stall. Another woman pulls apart an orange. Taste this, she offers.

Like most with whom I have lived in the city, Gilda is careful with what she eats outside her home. Microbes and pesticides make people suspicious about the produce. Oranges are ok, as are other foods with skin. Eating well is especially important when babies, like mine, are fed by mother's milk, which carries vital – or harmful – energies and humours (Garcia Meza and Solomons 2016; Vossenaar et al. 2013). Gilda buys a bundle of small, sweet bananas and peels one for me. 'Eat this', she says as she tucks the others in my bag before I can protest. 'They're delicious right now'. I know she routinely skips her medicine because money is scarce, but offering her money for the bananas she has given me would be insulting.

In the months I lived with her I never got sick, and because of this I developed a trust in her cooking, letting go of worry surrounding food while eating with her. Still, we both know that we should stay vigilant against the complacency that comes from feeling well, since there is another danger in what cannot be felt or seen. The pathways through farmland in surrounding communities are lined with plastic pesticide packaging. The words 'Toxic,' and 'Poisonous,' are written in Spanish on the bottles and bags, though this is an advertisement—a reason people buy the products and not a warning about health. Gilda has a lot of stories about what these chemicals will do, relating them to cousins who birthed stillborn babies, a brother-in-law who worked in the farms who died of an enormous cancer, and other monstrous illnesses. Just last month a brother died of a heart attack and she is still recovering from the shock and grief.

In the market, she steers us away from women wearing clothing that marks them as being from the nearest valley. What they are selling looks like beautiful produce to me, but these vegetables have 'too many chemicals; not our seeds', Gilda has explained before. It is not just this particular valley that is the problem. Many of the people in the city do not trust any of the area's soils. They tell me that once-beloved foods are leaving a sour taste in mouths and causing stomachs to revolt. They also tell me that, worse still, they are made sick by things they cannot sense – and that often times they do not even feel that they are sick until it is far too late. I have read articles in scientific journals that connect the chemicals used on foreign seeds to bodily, metabolic disorders years after exposure. The explanation for the heart attacks that have come to plague the community that I hear from those around me, however, focuses not on bodies but histories. People tell me that their ancestors warned them that if they ceased caring for the mountains surrounding the community, many would die.

After we leave the market, as we walk back toward our homes and before our paths turn away from one another, Gilda says it again: she is not well. 'Say more'? I ask this time – at once a request (stories being my data) and an offer (I cannot give her much, but I can listen). In response, she tells me she is having trouble caring for her family. 'It's hard to keep the house going', she says not long before we say goodbye.

### *Juxtaposition*

In the first vignette, set inside a nutrition clinic, a health educator works to habituate her patient's behaviour through a set of behavioural modifications. The educator is concerned about how social factors are embodied, and is, as a result, helping people to change their bodies by changing their habits and lifestyles. Exemplary nutritional training, as

envisioned here, connects mind with body, inculcating the patient into a set of practices where boundaries between intention and habitation, rationality and emotion, and the corporeal and mental dissolve. Activities that started off as difficult will become easier as the routines of eating and exercise are conditioned in the flesh. Nutritionists hope that over time these responses will become automatic so that patients will not have to consciously choose to nourish their bodies with certain foods and exercise behaviours; through socialization these ‘choices’ become ‘natural’ (a term here used synonymously with ‘easy’). Nutritional training is meant to promote a set of habits that are not just in thoughts, but in fat and muscle – a knowledge of the world that resides in the body.

What I want to draw attention to is not the truth that bodies are socialized or the truth that ‘the social’ is embodied, but rather, that nutritionists are treating bodies *as if* they are socialized, and treated society *as if* it is something to be embodied. An effect of treating health as a social problem made material in the body is that resultant treatment proceeds through a series of prescriptive steps (fewer tortillas, more exercise) intended to impact social routines of eating and moving so that patient bodies could achieve a pre-established and measurable goal (less fat, lower weight). The health offered by this prescription takes a unit-based form, which can be accumulated to form what Joe Dumit calls ‘surplus health’ – a seemingly protective barrier against an always-lurking threat of illness (2012b). Monica Konrad notes that this framework of anticipation serves to transform everyone into a patient-in-waiting (2005; see also Sunder Rajan 2006). It also transforms patients into bodies-in-waiting: where there may not have been bodies before, there are bodies now.

In the second vignette, set along a path where nutrients, pesticides, toxins, generosity, necessity, suffering, and pleasure intermingle, there is an array of health-related decisions that must be negotiated. Though Gilda is not well, this lack of wellness resists being localized in a body demarcated as individual, social, or political. Her eye may be failing, but if, as analysts, we assume at the outset that the eye is part of her body we have already overlaid medical orderings of health over her own. Indeed, she does not locate sickness inside herself but being unwell is, for her, an inability to care for her family and her home. What sort of ‘body’ is this? Why would we order our own thinking around bodies when the persons around us are attending to spatial distributions and temporal transformations? In this vignette, we encounter nutritious vegetables that grow in toxic soils, feeling well that can mask the presence of sickness, illness that emerges when landscapes are threatened. Here, no longer in the territory of bodies (see also Murphy 2011), health is not a property to be achieved, but a practice of negotiating between different sorts of goods and bads. Apparent in Gilda’s negotiations is concern for transfer and transition – what we might call *exchange*, to underscore the continuous transformations involved in these negotiations.

This notion of health has resonance with hospitality, a term theorized by Matei Candea and Giovanni da Col to emphasize how calculation becomes enmeshed in spontaneous improvisation, and the personhood of host and guest variously intertwine (2012). They frame hospitality though Pitt-Rivers’s idea of ‘productive surplus’, in which practices of exchange always incite the overflow of their own boundaries. In contrast to Dumit’s ‘surplus health’ – which is based on a desire for the object of health that can never be achieved – in the productive surplus of hospitality, an object is not a sought-after possibility. In this sense, health outside the clinic is not an item to be acquired, but a continuously negotiated aspect of *exchange*, in which the evaluation of ‘feeling well’ hinges upon a capacity to care for others. That health is not an object in this vignette makes it difficult to identify and

articulate analytically and impossible to treat prescriptively, but women in my fieldwork were still busy caring for it all the time. It may not have held a stable, measurable materiality – it was certainly not bound by individual or social skin – but it was nonetheless vital in people's lives.

To take a lesson from science studies, the argument that follows from the juxtaposition of clinical and non-clinical spaces is not that health and hospitality are one and the same. It is rather that health can be done in different ways (Mol 2002). Instead of working to pull a generalizable definition of health out of our materials, we might rather work to attend to the diversity of practices we encounter, asking how they are negotiated and what happens as a result of these negotiations. This is where the long-term and empirically engaged commitments of medical anthropology are critical: being in the mix and mess of clinical and culinary *exchanges* helps us to stay with different sorts of differences, resisting the impulse to define stable parameters for bodies – or for health.

### Ontological violence

In her now-classic work on embodiment, epidemiologist Nancy Krieger notes that concern for how social inequalities come to be materialized in bodies (i.e. embodied) dates back to the origins of the field of social epidemiology, which recognized that body size, body proportions, and longevity all 'bore the imprint of economic conditions and could be affected by government policies' (2004, 92). She notes that conditions of embodiment are not a new discovery; the 'links between bodily constitution and the body politic' have been a matter of concern for epidemiologists since the 1800s (2004, 93). She makes a powerful case – to an audience of epidemiologists – for using embodiment to undo social/natural binaries that are residual in the field,

Taking embodiment seriously has the potential to sharpen social epidemiologic research and enhance its ability to provide insights relevant to improving population health and reducing social disparities in health. It can do so, however, only insofar as we understand our embodied selves to be simultaneously and historically contingent social beings and biologic organisms... . The construct of embodiment also invites us to consider how our bodies, each and every day, accumulate and integrate experiences and exposures structured by diverse yet commingled aspects of social position and inequality (2004, 99).

The intervention that Krieger is making into her field is a useful intervention for epidemiologists. And still, the work that I see for anthropologists is not to necessarily take her call for the future of social epidemiology as our own, but to analyse it as a way of doing science whose effects ripple across numerous fields – perhaps none so obviously as in clinical nutrition, where patients are reminded that the social environment is accruing in their bodies 'each and every day' (in every bite of food, with every movement) and, as a result, encouraged to change their bodies by changing their social practice.

Many medical anthropologists, especially those who straddle dual roles as anthropologist and medical or public health practitioner, have made a similar call to Krieger's, arguing for the importance of recognizing that illness and suffering are embodied in relation to their environment (Farmer 2003; Weaver and Mendenhall 2013; Kleinman 1988). The argument they advance is that bodies absorb unhealthy environments, and in doing so, become unhealthy. Taking the truth of epidemiology as a truth of anthropology, however, misses out on the opportunity to address the ways in which this truth prioritizes body-

focused orientations to health, foreclosing orientations to health less concerned with bodies. ‘Taking embodiment seriously’ in the way that I am advocating here is not to accept embodiment as the anthropologist’s virtue, but to examine how (when, where, and to what effects) embodiment is made to matter – and how (when, where, and to what effects) it may not matter at all.

In writing about the interplay between obesity and landscape, geographer Julie Guthman notes that bodies far too often become sites of commodified intervention – what she terms a ‘socioecological fix’ (2015, 25). She likewise critiques the ‘obesogenic environment’ (2013) thesis, which posits that unhealthy bodies have absorbed an unhealthy environment, for closing down the question of how bodies and environments are made to relate – a question that, she argues, is precisely what should be opened up to further inquiry. Similarly, I suggest that anthropological scholarship that approaches health as a definable object, located in a definable body that embodies the social body, risks tethering ontological violence to violence that is structural.

My concern for ontological violence lies in the harm we can further when we, as analysts, assume that our categories hold steady across diverse contexts. Obesity is a useful case in point. Scientists and health care workers often offer obesity as a quintessential example of structural violence in Paul Farmer’s sense of the ‘embodied experience’ of living in poverty or marginalization (2004, 308). And, indeed, the political/economic violence that unduly burdens certain kinds of bodies when it comes to matters of chronic affliction was evident in the long lines of poor, Indigenous, and female patients waiting to be treated at Guatemala’s massively defunded public clinics. But by paying attention to the practices through which certain versions of health come to matter – and matter over others – in and outside of clinical spaces we can see that the problem of obesity is not only that some bodies are more likely to be obese than others. There is also a problem in the assumption that bodies are, necessarily, the site of the problem. In my research, people did not only suffer from obesity. They also suffered from the prescriptions following the diagnosis, which, because they were based in formulaic understandings of the individual and society, could not account for (or ‘count’) the contingent and heterogeneous concerns people grappled with to lead healthy lives.

It is notable that both vignettes I have offered unfold in a place where cancer, stroke, high blood pressure and diabetes are reshaping traditional medical practices that have evaluated health and sickness through the question the question ‘*how do you feel?*’. Several anthropologists have noted that when it comes to chronic illness, wellness is not often felt, but instead lies in a diagnostic capacity and the anticipation of a future manifestation of illness yet to come (Whitmarsh 2013; Manderson and Smith-Morris 2010). One way anthropologists have responded to the growing concern for chronic illness is to levy skilful critique of how the uncertainty that results from anticipation can be commodified for financial gain (see especially Dumit 2012a; Roberts 2015). Without detracting from this critique, I am struck by the generative effects that concern for chronic illness can have on medical anthropology, forcing anthropologists to unpack our own assumptions about what constitutes health and illness and where (if not in a body) these might reside. The everyday analytics of chronic illness confront those living under the diagnosis, as well as those who study it, with the absence of a natural, singular answer to the question, ‘what and where is health?’. The impossibility of resolving the question points to the need to not only advocate for improving health, but to attend to what is at stake in the negotiations.

## Conclusion: thick description, translational competency

When Scheper-Hughes and Lock established an agenda for medical anthropology three decades ago, phenomenology, structuralism, and post-structuralism dominated anthropology's theoretical possibilities, each serving as a foundation for one of their three bodies. In doing fieldwork on chronic illness in and outside of clinical spaces, however, I found that none of these bodies seemed to fit the ethnographic realities I confronted.

Whereas the phenomenological body posited that 'all people share at least some intuitive sense of the embodied self as existing apart from others' (1987, 7), I found that embodiment – the existence of a self in a body that is formed from her social milieu – was not a universal condition of bodies, but was actively taught in hospital clinics. The insight that resulted was not that *bodies were social things*. It was, rather, that the experts around me were already acting as if this were so, treating society as something that could become embodied and focusing on changing bodies and society through practices of social habituation.

Structuralism – the foundation for the social body – suggested that 'the body [was] a natural symbol with which to think about nature, society, and culture' (1987, 7). But moving outside of clinics into spaces where people concerned themselves with agricultural relations, mundane pleasures, and the commensality of *exchange*, I saw that bodies were not a natural symbol everywhere. Very often living – even healthy living – was organized (b/ordered) in other ways. And whereas anthropologists often take the presence of 'the social' to be a natural fact, in the hospital, 'the social' was not natural, but performed as being a measureable, bounded thing.

Finally, concern for the body politic usefully attuned my fieldwork attention to how bodies are regulated, surveyed, and controlled through relations of power. Yet moving between a clinical focus on embodiment and women's culinary reproduction of unbounded relations made the separation of politics from phenomenology or sociality an odd manoeuvre. Instead, echoing an important anthropological lesson from recent decades, there were relations of power involved in techniques of individualization (wrapping the measuring tape around one's waste), as there were in techniques of socialization (encouraging a change in dietary habits). The salient question that emerged was not whether politics and power were involved in these practices, but what kinds of politics and power can we cultivate for the various challenges we face?

In considering 'future work in Medical Anthropology' today, I propose to leave behind the three bodies framework. Scheper Hughes and Lock designed the 'three bodies' as a heuristic – a way to disrupt existing bodily boundaries and borders. Over the years since it was published, however, the paper has been used as evidence of three kinds of bodies: one individual, one social, and one political, as if the individual, the social, and the political are bounded entities. The assumption that there are three types of bodies encourages what we might think of as *prescriptive research*. If we recall the prescription of the diet, the outline for action is made from stable, countable, knowable units to be added together and subtracted apart. Objects are bounded, as are the steps, which are held in place with a predictable future therein determined. A prescriptive research strategy likewise tells us that there are stable kinds of bodies out there to be studied, and then asks that we fit our fieldwork into this schema.

Drawing upon the practice-based approach to method developed in science studies that I have addressed, I want to offer the alternative path of *descriptive research*. Descriptive research cannot know its futures in advance but must necessarily engage with them as they emerge. Certainly there are ‘techniques of reification’ (Tsing 2014) in the rescriptions I have offered, from the place name of Guatemala, to the category of woman. Perhaps the most obvious reification lies in my organization of the vignettes according to ‘inside’ and ‘outside’ of clinical spaces. If I was writing to make a different intervention, I might have turned the logics of the kitchen and the clinic ‘inside out’ (see Sanabria 2016; Solomons 2016). Had I wanted to destabilize the authority of the clinic, I might have written about how, even inside clinical spaces, inter/intra-subjective and *not* embodied relations can become important.<sup>1</sup> Had I wanted to show how clinical logics are taken up in everyday life, I could have written the market scene in a way that emphasizes the bodies there at work. But because I am concerned about the purchase that medicine’s bounded bodies have on the kinds of health that become legible and treatable, I have instead organized my narratives to highlight differences in how bodies matter in clinical and non-clinical spaces. I have stayed close to the concerns for health of the people with whom I worked and lived – concerns I came to care about by, indeed, moving with them in and outside of clinics. Yet I have still selectively translated: from Spanish to English, from what went unspoken to written words, from the practices of weighing and shopping into the practice of theory (see Hirschauer 2007). These are not neutral stories; they have been written to advance an argument: because people we care about are working to cultivate non-bodily forms of health, we, as analysts, should as well.

The distinction I have drawn between the insides and outsides of theory is neither stable nor secure; as a rescription it is, necessarily and explicitly, a *technique* to be adapted. Descriptive strategies recognize that prescriptive strategies may, at times, be useful; sometimes, after all, it may be crucial to count bodies (e.g. Nelson 2016). But at other times, for example when writing with concerns for dietary *exchanges* and the various and often contradictory realities of caring for conditions of chronic illness in Guatemala in mind, we may eschew pre-established bodies to instead account for how health is distributed across place and time.

When it comes to health and bodies, descriptive research offers a provocation for anthropologists and medical practitioners alike with regard to our various kinds of ‘competencies.’ Medical anthropologists have recently posed an important critique to a common concern for cultural competency in medical practice. They note that while cultural competency may have sought to translate meaning respectfully and attentively between different sites or constituencies, the use of ‘culture’ in flat and stereotypical terms can further stigmas and decrease the quality of care (Taylor 2003; Kleinman and Benson 2006). Some medical anthropologists have offered the framework of structural competency to redress these shortcomings (Metzl and Hansen 2014; see also Bourgois et al. 2016). Structural competency requires health workers to consider how political/economic systems of oppression (particularly those surrounding race, gender, class, sexuality, and disability) *structure* the production and reinforcement of health disparities by inequitably distributing access to hospitals, health care, nutritious food, safe streets, life outside of prisons, quality education, and so forth.

A descriptive approach builds upon these critiques, adding another twist, for it recognizes that when it comes to health, meanings and structures alike are put into practice in diverse ways. What it asks for is *translational competency*, which recognizes knowledge as



an engagement that does not just mediate between meanings but transforms what happens in the world.<sup>2</sup> The process is not linear (from the proverbial bench to bedside); there is no final understanding of the world, health, and bodies to be settled upon. As with structural competency translational competency is predicated on the humility of contingency and not the hubris of mastery (see Metzler and Hansen 2014). As such, it resists the idea that we can know, ahead of time, what counts as health or what counts as a body. The concern is not to know (health, bodies) once and for all, but to continually attend to how our matters of concern transform, endure, are made to count, or fall apart in practice. This is a framework that asks that we be moved. Indeed, recognizing that we cannot but be moved, it asks for strategies for research, care, and intervention based not on stable, bounded knowledge or meaning (neither epistemology nor ontology is its goal) but on ethnographic engagement.

### Postscript: *planetary health*

In 2015, *The Lancet* launched a report on planetary health, intended as a declaration for where the field of medicine should direct its energies in the coming decades. The opening frame of health in its executive summary is body-based: in the past century, humans have made impressive gains in life expectancy, but massive degradation to nature's ecological systems threatened to reverse these 'health gains' (Whitmee et al. 2015). Yet a few paragraphs into the report the familiar bodily morbidity/mortality frame of health begins to slip away, replaced by discussions of ecosystem vitality, microbial diversity, chemical management, and climate change regulation. In several places, the report makes it clear that what counts as 'health' is precisely what is in question.

The publication of the report forces me to situate my own calls that medical anthropologists should consider health outside of clinical, embodied spaces. A critical reader might note that my argument is not, after all, an intervention into the logics of medicine or public health, but a reproduction of what is, increasingly, medical/public health orthodoxy (the very critique that I made of the uptake and endurance of the three bodies framework). Yet this shifting medical orientation to health is precisely why a rescriptive, practice-oriented future for medical anthropology is so important, since it asks that we study our informants' categories – alongside our own. My point has not been that we should do away with the logics of medicine; nor that we should discard bodies. What I wish to encourage is anthropological attention to the varied practices through which health comes to matter. These may include bodies, but they may take us to places – e.g. microbial modelling (Paxson and Helmreich 2013), global circulatory systems (Nading 2016), cross-critter viruses (Lowe and Münster 2016; Grant 2016; Kelly 2012), or the commensality of walking and feeding (Ibañez Martin 2015) – where bodies constrain our analytic capacities. Indeed, when it comes to fashioning a medical anthropology that is not centred upon bodies, we could easily draw inspiration from the corpus of Scheper Hughes, who has devoted recent decades to tracing the uneven circulation of organs across vast geospatial terrain, or Lock, who has studied the sciences of dementia and epigenetics in a way that interrupts bodily boundaries by distributing bodies across personhood and time.

Though 'planetary health' may be new, my call to embrace a practice-oriented approach to bodies and health is not. Shortly after the publication of *The Mindful Body*, Emily Martin, noting the proliferation of scholarship on bodies alongside an emerging



focus on complex systems, asked whether we might be seeing an end of ‘the body’ (Martin 1992). Her response to this question was clear: bodies are not disappearing but are becoming refigured and refashioned. The call, then, was to direct our attention toward the sometimes-contradictory schemas through which bodies and health are reproduced – caring, in our stories, for the tragic or unexpected everyday effects of these schemas. As the complex systems through which health materializes continue to transform, this call remains ever urgent today.

## Notes

1. Indeed, I have made this argument in Yates-Doerr (2012). For further analysis of clinical and non-clinical registers of care in obesity treatment, see Vogel (2016).
2. I have also written about translational competency in Yates-Doerr (2014a).

## Ethical approval

The work complies with IRB protocols at New York University and the University of Amsterdam.

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