

Historias of Co-Laboration

NUTRITION FOR SUSTAINABLE DEVELOPMENT

“Sustainability is an English word.”¹ This statement is so obvious that the problem of translation it poses is often ignored, but that problem is exactly what Dr. María de las Nieves García-Casal, president of the Latin American Society of Nutrition, wanted her audience to face. It was November 2015, and the society’s annual meeting, held that year in the Dominican Republic, focused on the topic “Nutrition for Sustainable Development” (Nutrición para el Desarrollo Sostenible). The UN’s Sustainable Development Goals had just launched, and they resonated with the field of nutrition’s interest in generations, life cycles, and futures.

The UN’s newly codified goals, formally titled “Transforming Our World: The 2030 Agenda for Sustainable Development,” promised to incorporate the global challenges of climate change into the agenda to improve health metrics and economic growth. Policy leaders were making calls to bring science and action together to inspire global transformation. The field of public health nutrition held that nutrition would play an integral role in the development goals’ success. Improving maternal nutrition, in particular, would improve physiological and, thus, global development: by making better babies, the field would make better countries, better economies, and a better world.

But *sustainable* translates into Spanish as both *sostenible* and *sustentable*, the former connoting a capacity to be maintained over time, the latter a sense of being reasonable. “Which meaning is it?” Dr. de las Nieves García-Casal asked, setting off a debate at the Spanish-language conference about what the organization’s orientation to sustainable development should be. Endurance? Coherence?



FIGURE 18. María García Maldonado stands in front of a mural painted by Jaime Mastranzo (Instagram: mastranzo_art) in front of a Maya midwife center in Xela. Photo by author, 2017.

Rationality? Something else? As Dr. Noel Solomons, who was in the audience at the conference reflected, “The connotation of the Congress’s agenda will differ profoundly depending on the chosen translation.”

Not long after the conference concluded, I reached out to Solomons to discuss research ideas. We had been looking for a topic that we could work on together for a while, and he suggested that we take up this vexing challenge of how to translate and back-translate the term “sustainability.”

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Much of this book has focused on systemic cruelty in the field of nutrition science and policy. I have analyzed UN, US, and broader American narratives of maternal nutrition that sound well intentioned to show how they frequently ignore that hunger has been actively produced by profit-driven politicians, their business associates, and the knowledge systems that support them. I have considered how contraception and abortion care are persistently excluded from discussions of hunger policy, despite evidence that hunger and reproductive autonomy are closely tied. I have also considered how the field of nutrition has cleaved land, agricultural, and border-crossing sovereignty from its work to produce “better nutrition.” I have suggested that these elisions systemically

reproduce the very problems that global health and development experts frequently claim to solve.

In this chapter, I consider how to challenge and change this reproduction of harm. I turn my attention to the space of sustainability policy, taking my own work with Solomons and our scientific collaborators as a case study in the possibilities of using science to “transform the world.” The anthropologist Savannah Shange (2019) has highlighted the importance of cultivating a wide range of intellectual and activist strategies to interrupt systemic cruelty. She writes, “Because the late liberal state is an unruly set of overlapping processes, our attendant modes of intellectual and political practice must also be agile as they target civil society and the free market as cognates of the state” (10–11). This chapter is an experiment in developing this agility.

I begin with an in-depth analysis of Solomons’s work and his influence on my own. Whereas anthropologists often focus on experts’ practices less than their everyday lives, I work to contextualize Solomons’s scientific practice through both his personal and his professional commitments. I do this to add richness to the critique of nutrition science that I have built up in the previous chapters—to make clear, as I explain below, that critique is not the only way to approach the field. I then turn to an overview of a collaboration I developed with Solomons and other nutrition scientists I met through his work. The chapter describes our engagement with different modalities of scientific representation—from conference presentations to ethnographic narrative—to examine what they afford or foreclose. I draw from our fieldwork together to make a clear argument: ending hurtful border policies must be included in the agenda to end hunger. But instead of advocating for a single pathway of action to achieve this end, I call for the development of a range of methods for science and activism alike. Rather than settle on a universal, shared definition for a term such as sustainability, I highlight a need to cultivate skills in working well amid different—and changing—kinds of differences.

A DISRUPTIVE THINKER

I first met Solomons in 2006, when I spent a summer at his nutrition center in Guatemala City through a fellowship from the US-based Social Science Research Council. The fellowship encouraged cross-disciplinary and international work, offering the opportunity for junior social scientists to work with senior scientists from a field different from their own. I was, at the time, a graduate student studying anthropology at New York University. Marion Nestle, a professor in the university’s food studies department, knew I had carried out work in Guatemala and introduced me to Solomons—an old friend of hers from their postgraduate days. She described him to me as an “extremely smart scientist with an extremely good sense of humor,” both of which I found to be true.

Nevin Scrimshaw first recruited Solomons to Guatemala in the 1970s to help INCAP scientists develop a noninvasive method for detecting poor digestion. Like Scrimshaw, Solomons was trained in both medicine and chemistry. An online biography at the Hildegard Grunow Foundation in Munich, with which he had a long-standing affiliation, highlights his many academic accolades, including a residency in international medicine and infectious disease at the University of Pennsylvania and specialization in gastroenterology and clinical nutrition at the University of Chicago. The biography also notes, “In his young adulthood, he would participate in the civil rights and anti-war movements, only to become disillusioned by the intractable nature of the injustice elements in the fabric of [US] society” (HGF 2023). Many of his colleagues back at Harvard, where he received his undergraduate and medical degrees, would have found Guatemala in the 1970s and 1980s to be dangerous. After just a few years of working in the country, Solomons decided that he would “rather die in Guatemala than live in the US,” as he was fond of saying.

Today Solomons is widely considered an academic giant in international nutrition. In a field that has traditionally focused on the study of individual elements, Solomons is known for his inquiry into metabolic pathways. Influenced deeply by his Tufts University mentor and friend, Dr. Irwin Rosenberg, a progenitor of the field of gastroenterology, he spent his career analyzing how nutrient absorption is influenced by systems-level interactions, asking questions about how immunological and cardiovascular systems work in concert with food systems. He devoted himself to the study of how environmental toxicity shapes the fetal origins of disease long before the topic was in vogue among health scientists. As the field grew in popularity, he also became skeptical of the burden it placed on mothers and he distanced himself from it at the end of his life.

Though committed to Guatemala—he frequently wore articles of Maya clothing to the prestigious international meetings he attended to signal his dedication to the country—there was never doubt that Solomons was a Black man from Boston. He followed US news fastidiously, was well versed in W. E. B. Du Bois’s theories of race and racism, and during basketball season could be found reading and editing scientific papers while a Knicks game played on the radio in the background. Reflecting his care for the people around him, he employed the same secretary, building guard, and taxi driver who worked for him when I first met him in 2006 until his death in 2024. Though he studied the chemical properties and benefits of breast milk for decades, he was quick to discourage people from being too sanctimonious about the topic of infant feeding, routinely pointing out that he and his older brother, a famous Broadway dancer, were both formula fed.

In 1985, Solomons left INCAP to found the Center for Studies of Sensory Impairment, Aging and Metabolism, or CeSSIAM. It was just a few years earlier that Guatemalan universities began to admit women to medical school. He had



FIGURE 19. Dr. Noel Solomons reviewing a photograph he has just taken of guests at a scientific conference. As a nutrition scientist with deeply reflexive attention to the social world, he, much like an anthropologist, often took pictures of the people with whom he interacted. Photo by author, 2016.

observed that many brilliant women were graduating with degrees in medicine, but social distrust of women doctors left them underemployed. He decided to build his center's research team from this pool of available doctors, and the center has been staffed almost entirely by women ever since. He helped many Guatemalan scientists obtain advanced degrees in scientific fields that Guatemalan universities do not offer by leveraging his connections to create international educational opportunities for his staff. In 2010, the Guatemalan government awarded him the National Medal of Science and Technology—the first time the prize had ever been given to a foreigner. He had high expectations of the CeSSIAM scientists and at times pushed them tirelessly, but he was also beloved. Many women who worked with him have described him to me as “the wisest, kindest person I know.”

When I first came to CeSSIAM in 2006, I didn't have to ask where the center's funding came from. Solomons told me that he knew that anthropologists are generally interested in “following the money.” He said this with air quotes and the wry grin of someone sympathetic to the work of making trouble. Knowing that anthropologists often see economic flows as a driving force of world

systems, he addressed the question of finances head-on shortly after we met. He explained that he received some support from his work editing journals, such as the *Food and Nutrition Bulletin*, which he had managed for more than a decade, or from academic projects on which he was a coinvestigator. The biggest source of funding came from grants issued by the philanthropic wings of corporations. Nestlé, Dannon, Hormel Foods, and even soda companies such as PepsiCo have foundations that fund research in nutrition science to which he would apply. Again, anticipating my question—this one about conflict of interest—he insisted that the philanthropic wings of companies are separate from their corporate wings. “I know Marion wouldn’t approve,” he conceded, referring to Marion Nestle (2018), who was at the time carrying out research on the conflict of interest between food scientists and the food industry. But working within the food industry was one of the hurdles he had accepted when splitting from both INCAP and the US.

Solomons felt that he frequently had more autonomy over his scientific practice drawing on funding from the food industry than he had when working with UN-affiliated agencies or within the US academy. I knew he rejected funding from any source—even if it would have helped support his research and staff—when he doubted industry motives, and there was, ultimately, a lot of funding to reject. Solomons had built his scientific reputation on his critique of poorly conceived food aid. As much as he was known for his unique and sharp intellect, he was also widely known as a “disruptive thinker,” as he once characterized himself in an interview about his work. In the last half of the twentieth century, when scientists everywhere were jumping on the protein-supplement bandwagon, he argued that there was no major protein malnutrition in Guatemala and that protein products were largely unnecessary (Solomons et al. 1993).

“If you have a false hypothesis and you act on it, you’re doing public health harm and not good,” he warned his colleagues from the podium of large international nutrition meetings, disapproving of how frequently the field of nutrition has intervened only to solve the wrong problem. He also took the supplement industry to task for their work to grow babies in utero. Countering the public health gospel that a bigger newborn is a healthier newborn, Solomons’s research on prenatal growth has linked the common aim to help the fetus grow larger to obstetric violence. In the Guatemalan context, where small mothers will give birth far from hospital settings and often without trained support, a “big baby may equate to a dead mother,” I have heard him say bluntly, then reminding his audiences, “Dying in labor is one of the most painful ways to die.”

Before the COVID-19 era of online meetings, Solomons would typically fly around the world to attend a dozen or more conferences a year—frequently as a keynote speaker or guest of one of the major food companies with whom he collaborates. A Nestlé representative told me that he would charge them for a

first-class ticket even though he flies so much he gets a free upgrade, then would use the extra funds to subsidize the travel of one of the scientists on his staff. “We don’t really mind this,” the representative added. “He may not follow our rules, but we respect his scientific integrity.” Viewing international exchange as a linchpin of good nutrition science, Solomons prioritized helping his staff attend the major conferences in his field, hoping that they would find their research challenged, debated, and improved and that others might learn from them. I was a direct beneficiary of his commitment to mentorship. Even when he was critical of my analyses, he ardently supported me and my work in graduate school and beyond. He introduced me to many of the scientists I have interviewed over the previous twenty years, and when it comes to this book, he read and commented on every chapter.

One of the people he introduced me to was Rosario García Meza, a Guatemalan researcher with degrees in nutrition science and social anthropology from the San Carlos University in Guatemala City and from the “Power, Participation and Social Change” master’s program at Sussex University in the UK. Whereas many nutrition scientists were comfortable bracketing “culture” as irrelevant to their science, Solomons had inherited Scrimshaw’s interest in anthropology, finding it imperative to be simultaneously attentive to matters of calculation and matters of culture. He was passionate about chemistry’s physical principles—it is no exaggeration to say that the intricate details of protein’s methylation kept him up at night—but part of this passion extended to vociferous debate about scientific methods and the broader question of how we know what we know. Much of his research focused explicitly on procedural matters: how to assay iron or measure bodies in ways that are technically precise and culturally sensitive. García Meza has expertise in cultural analysis and reads widely in anthropology. He hired her onto his staff to ensure that culture would remain integral to CeSSIAM’s science. Though he never admitted this to me directly, I think he kept anthropologists close because he appreciated the field’s commitment to the analysis of politics and power.

It was, I believe, this attentiveness to politics and power that drove Solomons’s interest in the growing rhetoric of sustainable development among his global health colleagues. “People in Latin America practically invented the idea of sustainability,” he said with measured exasperation, pointing to the audacity of plans in the works to teach “sustainable nutrition” to Indigenous Guatemalans. Over the previous decade, we had not found a topic where coauthorship made sense. Typically, he was in a position to teach me about the nutrition landscape of Guatemala—an informant, not a collaborator. Though I have presented my research at his center a dozen times, our scientific methods did not easily align, with my ethnographic work relying on situated analysis and his quantitative work relying on independent, replicable measurement. And yet on the topic of sustainable development in Guatemala we were in agreement: the so-called global health

experts should be learning about the concept of sustainability from people living it—not the other way around.

CO-LABORATIVE RESEARCH

In 2017, Solomons linked García Meza into our conversation about sustainability. We decided to work together on a small research project exploring various translations of the term. We would present our results at the upcoming International Congress of Nutrition (ICN), held that year in Argentina. I had first spent time with García Meza at the previous ICN, held four years earlier in Granada. She had left her still-nursing infant with her partner in Guatemala, and I had brought my still-nursing one-year-old with me. We both needed to take frequent breaks to nurse or pump milk. Nutrition science was a field still full of men, as reflected in the keynotes and plenaries around us. As others drank wine in the shadow of the Alhambra, we produced milk from our bodies in cold hotel rooms and bonded over the challenges of conferencing and care work—though García Meza insisted that these experiences would also attune us to the everyday life challenges that people faced, which would make us better scientists in the end. On my next two trips to Guatemala, these without my children, she assuaged my guilt about leaving them behind, reminding me that our time away would strengthen our children's relationships with our partners. Her intimate familiarity with Guatemalan mothers who travel long—and frequently international—distances for employment had given her insight into how sometimes leaving can be the caring thing to do (see also Yarris 2017). At CeSSIAM's seminars, I came to know her as a generous, incisive thinker. Whether discussing the history of iron fortification in Guatemala or the history of civil rights in the US (two of Solomons's favorite subjects), she never missed a beat.

Solomons, García Meza, and I decided that the goal of our collaboration would be to map the “semantics of sustainable development” as used among different groups of Guatemalans. With Solomons serving as a consultant and editor, García Meza and I would interview three groups of people with connections to the San Juan communities about *sostenible* and *sustentable*: Maya-Mam midwives, mothers, and health or development professionals. The broader aim of the research was to better understand what the anthropologist Sally Merry (2006) calls the “vernacularization” of sustainability, in reference to how local actors will take up and translate so-called global terms in ways that make local sense.²

The prompt for our work seemed simple enough: we would talk with people about how the UN's recent mission on “nutrition for sustainable development” affected them, ask what they thought about this mission, and learn about what goals for “sustainability” they might have for themselves. We would then compare the major themes that arose in our interviews to answer the question of how the English-language phrase “sustainable development” traveled to Guatemala and whether “nutrition for sustainable development” was an appropriate goal. Yet we had scarcely begun our interviews when it became clear the term “sustainability”

was used and refused in so many different ways that our comparative method would have to be reworked.

Spanish-speaking health professionals would easily answer our question of what sustainable development meant to them, sometimes making explicit reference to the UN's goals. As one NGO employee explained, "Sustainable development pertains to actions that satisfy the sustainable development goals." Health professionals told us about the development of eco-conscious and fair trade products, such as a Unilever brand of "rainforest-friendly ice cream" that was "good for people and the planet." Evoking UN rhetoric, they explained that sustainable development implied an orientation to the future. Sustainable development for nutrition might emphasize, for example, food fortification in pregnancy and infancy to give babies the correct foundation from which to grow.

Maya-Mam women and midwives could not—or would not—answer us so directly. García Meza and I saw ample evidence of sustainable development projects in San Juan in the form of USAID-sponsored goat pens, chicken coops, or greenhouses. We knew women had opinions about these initiatives. Having spent time in the communities, we also knew that San Juan women were skilled in caring for their communities and land over long periods of time—what I thought of when I thought about the term "sustainable development" in generous terms. But the method of question-and-answer interviews that worked for health scientists who were well practiced in formulating their thoughts about sustainable development to strangers was not effective here. Sustainability may have been an integral fact of living, but "tell us what sustainable development means to you" was a nonstarter.

Part of the challenge was that *sustainability* is an English word, as the scientists gathering in the Dominican Republic had pointed out. But it wouldn't much matter if we alternated between *sostenible* and *sustentable*. San Juan women are first-language Mam speakers and generally not invested in the divergent definitions of these Spanish-language terms. The projects that I might call "sustainable development projects" were, to them, the "egg project" or the "pig project." Corporations were commodifying sustainability into a flashy brand to market their products. Meanwhile, though the women we interviewed lived a "green," "low-impact," and "carbon-neutral" lifestyle, they didn't dwell on this in conversation. Although we had planned to compare how different communities of people conceptualized sustainability, it turned out this would not be possible since San Juan women were not invested in defining the concept. In our case, different communities also required different methods, messing with the mechanics of comparative research and causing us to adjust.

To help with the work we wanted to do with San Juan's Maya-Mam women, we brought another person into the project. María García Maldonado is a Maya-Mam lawyer who has carried out interpretation and translation work for health and development projects in San Juan for more than a decade. She knows many of the women who live in San Juan's communities well and has expertise in the challenges of translation we were interested in learning more about. We became



FIGURE 20. García Maldonado and García Meza peel potatoes at the home of a woman in San Juan. Photo by author, 2017.

a team of three. Looking at us from a distance, it might appear that I was the anthropologist on the team, García Meza the nutrition scientist, and García Maldonado the Maya-Mam translator. In fact, each of us contributed expertise in anthropology, nutrition science, Guatemala, and knowledge of Mam culture and history.

Our method of working both together and with other women in the community moved from one of collaboration to co-laboration, drawing on the anthropologist Marisol de la Cadena's (2015) term for the collective effort of attending explicitly to spaces of difference. As de la Cadena explains this, to "co-labor" is to keep focus on the frictions, tensions, or dissimilarities in collaborative work; it is the labor of not collapsing variation into a unity. The point was not (at least not only) to better understand the women in San Juan but to better understand how much we could *not* understand.

García Maldonado was careful to explain to the women that we came as researchers, and we received their oral consent for participation in the conversations following the protocol of my institutional ethics review. But there was also a reformulation of "fieldwork" that happened in our practice. We were not treating the woman as objects (or 'human subjects') to be examined by us but learning from them, and with them. Accordingly, García Maldonado, García Meza, and I talked explicitly with San Juan women about the challenges we encountered

when trying to put the UN's "sustainable development" agenda into words in another language, and we asked them to think through these challenges with us.

"The United Nations defines sustainable development as development for the present that does not compromise the future. Does this make sense to you?" we would ask. As bilingual speakers with considerable experience moving between Guatemala's colonial and Maya-Mam systems of law and governance, they were experts in intercultural translation. We were aware of how conventional political-economic asymmetries structured our conversations. They knew I was a professor with a US passport, an especially powerful object in highland Guatemala. But it was also the case, when it came to the topic of sustainability in their communities, that they were the experts. We were committed to honoring their expertise and to recognizing all the ways we would not capture in English or Spanish their knowledge of sustainability on their own terms.

A lot of the time, we didn't ask anything at all. The anthropologist Stacy Pigg (2013, 127) advocates the ethnographic method of *sitting as doing*, in which knowledge is doubled and folded back through the labor-intensive and often joyful work of being with people as they go about the particular details of everyday life. This strategy made sense to us, since what we wanted was insight into the process of translating and back-translating between global sustainable development agendas and life in San Juan. So we sat with the women, drinking their thick, unsweetened atole with them, while they told us what they were up to, how their families were doing, and about their everyday triumphs and concerns. When we finished our drinks, we played with one another's children or toured gardens, listening to stories as women showed us the greenhouses and the goat pens that USAID had helped them build. We talked with women about "sustainable development," but we were also interested in the spaces around the term—those spaces where it was active but unspoken.

The next two sections draw from this time together to present two versions of what we learned. The first describes how we formulated our research on sustainability into a scientific presentation for a large nutrition conference. The second presents our research in the form of an ethnographic vignette. I then reflect on what kinds of knowledge these different methods of analysis and authorship produce: how they differ, how they complement each other, and, finally, what approach to knowledge production might allow various methods of scientific research and writing to coexist.

THE INTERNATIONAL CONGRESS OF NUTRITION

From the start, Solomons, García Meza, and I had planned to translate our research in San Juan into a presentation for the International Congress of Nutrition, one of the world's largest nutrition conferences. Though García Maldonado had been involved in our fieldwork, her name was not on this presentation. International nutrition conferences are an industry, with registration alone routinely

costing north of \$500 for professionals.³ Researchers must pay for their name to be included in scientific events, and since García Maldonado would not attend the English-language conference or benefit much professionally from having her name on the paper, we decided this would not be the best use of my limited funds.

In addition to academic and industry scientists, the UN has a strong presence at the conference, with many presenters listing affiliations with the Food and Agriculture Organization (FAO), the WHO, UNICEF, or the UN University—among others. All the major nutrition conferences, typically held in large hotels and exhibition halls, have industry sponsors. Multinational food and drug companies use the gathering to promote their products. As described in chapter 3, advertisements cover the conference program, and industry-sponsored side events fuse scientific presentations with product marketing. Nestlé, Dannon, and Abbott Nutrition have large booths centrally located in the exhibition hall that display advertisement pamphlets and research articles side by side. Smaller businesses and NGOs feature their work along the conference's quieter peripheries.

Scientists give papers in windowless rooms from dawn to dusk, but the talks are only part of why people attend. Conferences are also a time for people to network and for industry representatives to woo presenters—or vice versa. During the breaks, attendees tour the exhibition hall to learn about the latest products in the field. Over dinners and in the backroom meetings, research and policy agendas are discussed and set.

The conference, initiated by the British Nutrition Society in 1946, meets over eight days, every four years. The program is a several-hundred-page tome. The 2017 gathering included more than 2,000 papers, 40 keynote lectures, and roughly 200 symposia, drawing participants from ninety-seven countries (Carrera et al. 2017). Several months before the meeting, a scientific committee reviewed the submitted abstracts. Although the methods of nutrition and anthropology differ considerably, the principles of conference submission are the same: successful abstracts articulate a question or problem, explain the methods used in the research, showcase results, and often nod to large-scale implications. In both fields, committees are busy, and the point of the research should be made clear and concise.

To create our presentation for the meeting in Buenos Aires, García Meza and I set aside the methodological complexity of working with different groups of people in different ways. We instead coded our data to identify key themes. I do not usually use a formalized coding practice. Typically my method of ethnography consists of recording everything I have permission to record and attuning my attention to striking moments or exceptional stories that I think warrant further analysis and then writing these up. It's an intentionally interpretive and nonreproducible practice, with the goal of shifting taken-for-granted assumptions or generating different sorts of questions—not the goal of producing definitive or universal knowledge about how the world works.

My usual methods for research and writing would not work for the ICN presentation, however. Instead, we needed to translate the intricacies of our fieldwork into generalizable, diagrammable conclusions that scientists running between talks could quickly understand. We wanted to clearly answer the question of whether the English-language concept “sustainable development” traveled smoothly to Guatemala, and we wanted our results to be intelligible to an audience of impatient policy makers. In this case, we needed a schema, and coding would help.

With García Meza working as first author, we turned the time we had spent learning from people about sustainable nutrition into distinct and discernible categories. Or to be more precise, García Meza identified these themes from her fieldnotes, translated them from Spanish to English, and made a visual color-coded infographic that included example quotes from our interviews in each category we had identified. I then reviewed my notes and added ideas to hers. Finally, Solomons edited the presentation, adding insights about the broader implications and stakes for the field of nutrition science, and we all signed off.

The semantics of sustainability we initially thought people might debate based on Spanish translations of the word—endurance/persistence on one hand (*sostenible*), logical coherence on the other (*sustentable*)—did not emerge as especially relevant in our notes. What we found instead fitted loosely under three headings: Harm Reduction, Normative Definitions, and Holistic Uses. Harm reduction related to peaceful coexistence between people and land, such as a lesson given from grandparent to grandchild to ask permission from the mountain before cutting a tree. The second category, “Normative Definitions,” was where we placed the frequently tautological use of sustainability and most references to international development agendas. Finally, “Holistic Uses” named the commonly expressed idea that “sustainable” resource management must be attuned to ecosystem equilibrium.

We reflected on the uses of “sustainable development” we had encountered in our research to conclude for our audience in Argentina that this English-language phrase does not translate well into Spanish-language Latin American nutrition policies. We further suggested that “the concept of sustainability can break down completely when translated into Guatemala’s many Indigenous languages,” where it would become confusing or even set development projects up to do work that conflicted with community values. Addressing Dr. de las Nieves García-Casal’s provocation in the Dominican Republic in 2015, we finished the presentation with the observation that our research “illustrates a clear challenge when projecting from global goals into local community actions and a need to further understand potential semantic confusions.”

García, Solomons, and I felt good about our research. It had been, we thought, a useful collaboration. But the conference was also busy with people running back and forth to hear about the latest scientific discoveries. The WHO was announcing changes in its guidelines for optimal blood folate concentrations, Nestlé was presenting its findings on the health impacts of sugar consumption; biotech

companies were showcasing their new glucose monitors. “Semantic analysis” wasn’t really an area of interest for most people in attendance, and, truth be told, we didn’t draw much of a crowd.

Solomons himself didn’t seem dissuaded. He saw the project as a success, albeit a small one, and encouraged us to propose a larger scientific symposium for the next meeting (described in the conclusion). We had brought some anthropological ideas to a venue at the conference and had been able to participate in intellectual discussions ourselves. Start small, keep expectations modest, keep working at it. These were all lessons I drew from our efforts to make our research intelligible to nutrition scientists.

TANQ’IBELA

The international nutrition congress required us to represent our research in an easily digestible schematic form. In contrast, ethnography tends to encourage narrative practice as a method to interpret and share research findings. Consider the story that follows. Drawn from the time that García Meza, García Maldonado, and I had spent with Maya-Mam women in San Juan, this representation of our research makes an argument similar to the one we made in Argentina: global health discourse of sustainability does not map easily onto life in San Juan. Yet it makes this argument through narrative rather than through the coded schemas, conveying findings in a way that makes space for other concerns about what sustainability is and to whom it matters.

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When we asked Juana to talk with us about sustainable development, she began with a story of the sky. She used to feel the air, and would know, with certainty, how many days would pass until rain began to fall. A calendar with the face of Jesus gifted from a mechanic’s store hung on her stove, but she didn’t need it to know when she was in time. She could know this from the feel of the air.

In our conversation she used the Mam word tanq’ibela—never sostenible or sustentable. María García Maldonado back-translated this to Rosario García Meza and me as “el ser en la vida; de vivir; de sobrevivencia,” which I then translated to English as, “being in life, of living, of survival.” Juana was a midwife who had spent her life helping her community nurture their precious babies and their mothers. Being a midwife meant she was a gardener and a farmer, since caring for women in labor required knowledge of how to use medicinal plants as well as knowledge about how to sow, grow, and harvest them. These inseparable occupations of midwifery, gardening, and farming all required tanq’ibela, which implied an orientation to living that would produce knowledge about life as it was, granting insight into when soils were ready for seeds, when rains would come, or when bodies would be ready for birth. “Being in life” was foundational knowledge to living in and with her community since flooding could destroy a crop and, with it, food for the coming year. Women



FIGURE 21. Families in San Juan Ostuncalco transform used tires into rooftop vegetable gardens. Photo by author, 2023.

also needed *tanq'ibela* to withstand the enormity of childbirth's pain. *Tanq'ibela*, the closest word to sustainability that we could come up with, connected hunger, land, mobility, and kin. It was knowledge of how to survive.

Tanq'ibela was also increasingly unstable. Warming climates were causing unpredictable rain and drought that damaged the land, making it harder than it used to be

to read time in the texture and smell of the air. An effort to produce foods in erratic weather has snared many Guatemalan farmers in the devil's bargain between the slow poison of synthetic agrochemicals and starvation. As we walked through Juana's fields, the effects of the bargain were clear. Maize was dying, no matter how many chemicals were used.

In the years following our work with women in San Juan, drought-related crop failures would affect one in ten Guatemalans, resulting in extreme food shortages for an estimated 840,000 people, or roughly 1 in 20 Guatemalans (Lakhani 2019). Many of Juana's neighbors have sold their land, moving into cities in search of work, although it remains impossible for most people in this part of the world to find a job that pays a living wage. Families from Juana's community are moving north, in what is being called "the Great Climate Migration" (Lustgarten 2020)—itself an extension of a survival exodus already undertaken by Guatemalans for decades. Since time immemorial Maya people have enjoyed the intercultural exchange and learning associated with travel (Velásquez Nimatuj 2020). But all around Juana, the joy of travel has been overtaken by the painful pressure of forced migration. People leave not only for their own survival. Remittances sent home by Guatemalans working in the US are estimated to be equivalent to two-thirds of the country's exports and one-tenth of its GDP (CIA 2023). People leave to give their families back in Guatemala a fighting chance.

For good reason, the emigrant is a folk hero in the region. In 2010, a nearby town commissioned the construction of a giant sculpture of a young person with a backpack slung over his left shoulder, his right arm raised to the sky. Built at the center of a busy roundabout, everyone passing along the highway must face and circle the statue. Etched into its base is the prayer of the migrant and a poem. The prayer reads:

As I now must go to other lands to seek a decent life for my family, I ask your protection and intercession before God, for those who are on the road, since you did not abandon the Migrant People, help us to achieve our purpose. Amen."

And the poem reads:

"You left your mother crying, as were your father and your siblings, they are together, longing to shake your sweet hands."

Juana's home is a few miles west of the statue. At the age of sixty-five she has worked as a midwife in San Juan for more than half a century. She is a builder and visionary, both risky things to be in Guatemala. In 2018, the UN released a report confirming that killings of community leaders were orchestrated by powerful interests with ties to the Guatemalan military (Vidal 2018). Midwives are among those routinely targeted—another reason for tanq'ibela's fragility. Important grassroots revivals to support midwifery are under way, such as the Acam midwifery clinic in a city adjacent



FIGURE 22. An image of the Homenaje al Emigrante Salcajense, at the center of a busy round-about. Photo by author, 2017.

to San Juan and Codecot in Xela. But knowledge about surviving childbirth has not just been lost; it has been willfully destroyed.

Juana lives with her son Juan and his wife, Lucinda, who had been lucky to find modest employment running sustainability projects with local NGOs. A program funded and coordinated by USAID had contracted with the family to distribute a nutrient supplement made from US surplus corn to neighbors along with metal silos for storing homegrown maize throughout the year. Another project supported her family to raise goats for milk and fertilizer and chickens for their valuable eggs. Juana, Juan, and Lucinda make use of every single thing they are given. The bags holding the supplements featured USAID's logo, alongside the words, "NOT TO BE SOLD OR EXCHANGED," written in English in capital letters. They had turned the empty packaging into insulation that today covers their house. Their property appears as a shrine to the development organization, although really this is just the family being resourceful with limited supplies.

Wallace, Juana's teenage grandson, was not so lucky when it came to securing a job. The only work he could find in Guatemala left him in a heartless situation where he would spend more on transportation getting to work than he could make in a

day. Knowing his family would not give him permission to go to the US, he left in the middle of a summer night in 2015. When they awoke, he was gone.

Many weeks later, a US attorney contacted the family. Wallace had made it across the border and had found his way to the Arlington Juvenile and Domestic Relations Court in Virginia. The attorney asked Juan and Lucinda to send a notarized fax, which was hard to do from the mountains. Harder still was the truth of the content they had to write. The fax they sent relinquished their rights as his parents, granting sole custody of their son to the US court. “We are unable to protect our son or provide him with the care necessary for his well-being,” Juan and Lucinda affirmed on the court document.

They had a phone number of a youth center in New York, and the attorney told them they could contact him there. But they had attempted to call many times without success. Months had passed without connection. On one of my visits, we dialed the number together from my phone. It rang with no answer.

Afterward, Lucinda took to me the edge of their property where she had planted a garden in worn-out tires—an experiment in recycling initiated by one of the “nutrition for sustainable development” projects in the region that was going well. She plucked a few small orange peppers and offered them to me. “Cook these with your meal tonight,” she said gently, handing me the gift. “You seem so sad. They’re strong peppers. They’ll help you feel better.” I knew her heart had broken into countless pieces over her missing child, yet she was worried about me.

. . .

As with the schematic diagram from coded interviews, this narrative analysis of sustainability makes the failure of global health discourses of “sustainable development” evident. It also helps point to a strategy for sustainability—or at least “for living, for survival”—that is deeply tied to community building and not to individual bodies. “Nutrition for sustainable development” does not really fit into the languages of San Juan, but if we were to attempt a translation it might mean something akin to “caring for and between relations with a commitment to tending to the people who make them possible.”

Likewise *tanq’ibela* does not really translate into English—not even when the translation takes the form of an extended ethnographic narrative. As the geographers Max Liboiron (Michif-settler) and Edward Allen (Kablunangajuk) note, “You cannot come to a full understanding of Indigenous concepts” in written, academic texts (Allen, cited in Liboiron 2021, 22). The point in writing this historia of *tanq’ibela* is not to make Maya-Mam knowledge accessible to broader audiences but rather to destabilize English-language assumptions that definitions of sustainability could ever be universally shared (see Mol 2024). In writing with a Maya-Mam term, I am not signaling Indigenous understanding but rather how much colonial languages and their policies get wrong. Making space for co-laborative *not-understanding* is a way of slowing down the authority that often accompanies



FIGURE 23. A family in San Juan has repurposed the wrapping of USAID supplement packaging, using it as insulation for their animals. Photo by author, 2016.

American science, with the hope of cultivating a different foundation on which knowledge can grow.

STUDYING ASKANCE

Solomons and I met at a busy diner in Guatemala City. The modest restaurant was not far from the CeSSIAM office, and he spent enough time there that he had a table on permanent reserve. He liked the staff—and he liked the food. He was in the middle of work when I arrived, so I sat down and started up the voice recorder on my phone. Years earlier, I had received approval to record all our conversations. As he put it, “I’ve nothing to hide.” Sensing my presence, he began to narrate what he was doing without looking up from the computer. “I’m writing up the “six S’s of science” for our bulletin,” he explained, and began to tell me what they were (in English):

- 1—**systematicity**. Science should be hypothesis driven. You start with a question or problem that you want to study, and you should study this systematically.
- 2—**skeptical**. According to this principle, you should doubt even your own findings, being curious and open to being proved wrong.
- 3—**social**. When science is basic, it’s basic, but you should also think about the possible benefits to society and the ethical dimensions of both doing research and the application of the research to society.

- 4—**sacrifice.** Scientists are not going to have a lot of money, especially now, with the cuts to science funding that we're seeing. You must have a mind-set of sacrifice.
- 5—**selflessness.** This one is about mentoring. You need to set aside your ego and get to the point where you aren't jealous of the people around you (he added with a wink that he had recently won a mentoring prize, but rather than keep it all for himself, he had taken García Meza to Boston with him, and they had accepted the prize together).
- 6—**sustainability.** Especially in the nutrition era of the Sustainable Development Goals, sustainability means taking a systems-level approach.

Having laid out the principles for me, he circled back to critique the final point. "Everyone is all about systems right now," he explained. "Systems thinking is at the heart of the sustainability paradigm. But there's nothing wrong with reductionism, except the fact that it is incomplete. Still, it has an internal method to itself."

Solomons's endorsement of reductionism initially surprised me, since he, like his mentors Scrimshaw and Rosenberg, was interested in the complex pathways through which metabolic, immunological, cardiovascular, and gastroenterological systems interconnect. But he continued to explain his thinking in a way that I understood.

The opposite of reductionism, holism, adopts the tactic of encompassing everything—the more you encompass, the more you approximate a holistic approach. This has the advantage of capturing a lot of social context, or history, etcetera. But it has the disadvantage of generating data that is impossible to analyze by virtue of its huge volume and by virtue of all the interactions between the data that you would find.

He pointed to the advantages of reductionism, explaining:

In a reductionist approach, you can present interactions within a manageable framework limited to a certain number of variables. You can study these to ask which ones will be reproducible over time and in other settings. This is principle one—systematicity. What you're missing is the relationship between all of the other variables—the holistic issues.

He wanted me to see that the methods of reductionism and holism were not in competition but differentially suited for different sorts of research problems, although he offered another virtue of reductionist methods.

People who tend to aspire to holism often have a paralysis of an overwhelming amount of data and ambition within the data. People who are trained in reductionism select a chewable, biteable, digestible fraction of information. They don't take on everything all at once but go through the steps, and applications, and they can learn a little bit and then build from there.

The waiter came to clear our plates, and then Don Chepé—CeSSIAM's longtime taxi driver—arrived to pick me up. We were interrupted that day, but I knew I would have a chance to explain in writing that I agreed with Solomons more than he might know. The version of feminist anthropology I have been trained in, after all, is critical of holism in science (Mol 2002; Martin 1998; Rapp 1978; Haraway 1988; Strathern 2004). Solomons is right that the kind of anthropological research I do is expansive. To carry out an ethnography of a policy requires moving in a lot of directions, working to hold together various and sometimes baffling connections. But doing ethnography well requires not only presenting life's infinite complexities, but knowing which parts of these complexities to emphasize. Running counter to the aspiration to holism (in which everything is endlessly connected), my version of feminist anthropology considers the position of the researcher alongside those with whom we work and develops actions and knowledge accordingly, as described in chapter 4. This is not a reduction in the sense of simplification, taking parts away from a broader whole. It is rather a reduction that attends to complexities to develop insights into how to best act (think, for example, of the reduction that happens in cooking in which the volume reduces but tastes become richer).

Consider that the work of tracing along the various uses of sustainability that I have undertaken in this chapter can be done with any term. Anthropologists spend time with people, getting to know them, and gaining (always partial) access into their languages and worlds to understand which terms are important to unsettle. We then use this insight to craft an analysis that will matter for the people we work with and the worlds we want to build. Whose stories should be listened to and amplified? What details should we focus on, and what bits of our interviews or fieldnotes should we use? How can we piece the infinite expansion of possible *historias* together to shift something that needs to be moved? In a world of endless and unfolding systems, within systems, within systems, this method of science is one that uses the experience of "being in time" with people during fieldwork to gain insight into which reductionisms—and which arguments—to make.

But if Solomons and I are in agreement about the need for reductionism, our practices of reduction diverge. In composing the ethnographic vignette of Juana's experience with *tanq'ibela* above, I never coded my fieldnotes for key terms. The phrase "sustainable development" was written on USAID packaging and posters all around me, but I was looking less for repetition than for moments when my understanding was shifted—moments, for example, when I asked about nutrition while thinking of food and people would instead point to the sky. I didn't seek systematicity or replicability but friction and rupture. I carried out fieldwork to learn from others to look elsewhere, to see what I did not expect. My undergraduate adviser, Renato Rosaldo, explained the method I would eventually put into practice as "looking askance." I didn't know what this meant, so he held up his yellow pencil and turned his head, so he was squinting at it from the side. "Don't look head-on, but study things sideways," he advocated, as a way of insisting on the

importance of rigorously unpacking so-called commonsense assertions about how the world works that frequently turn out to be wrong.

Studying sideways has come to have another meaning for me as well. The anthropologist Laura Nader's method of "studying up" encourages the study of people with more institutional power than we have; rather than study the weak or disenfranchised, we might study bankers, lawyers, doctors, or businessmen. As Nader (1972, 284, 288) notes, there is much to be gained by understanding "those who shape attitudes and actually control institutional structures," using ethnographic methods "to get behind the facelessness of a bureaucratic society, to get at the mechanisms whereby far away corporations and large-scale industries are directing the everyday aspects of our lives."

In situations of studying sideways, however, asymmetries are less certain. Rather than know in advance who is powerful, researchers can be more curious about where power in relationships resides and how this power works. I have found this method of not-knowing—looking askance—to be a good practice in situations when the power structures at the table are not pre-given: for example, in my work with Solomons. I was not studying him because he was powerful, although he could be. I was studying with him because he was a good ally, had much to teach me, the willingness to help me understand what I could not, and respect that sometimes a shared understanding would never be reached. This was one of the lessons of our research with sustainable development: we may be using the same terms in different ways, and it would be good practice to learn how to recognize and work with these occurrences of difference.

CONCLUSION: TRANSFORMING OUR WORLD BY 2030

When it comes to sustainability, nutrition policy makers emphasize preserving life for the future. They speak about "dieting for planetary health," a catchphrase used by the EAT-Lancet Commission, formed shortly after the launch of the Sustainable Development Goals, which promotes a "global diet" of whole grains and plant-sourced proteins as a route toward "future health" (EAT-Lancet Commission 2023). Policy makers occasionally recognize that Indigenous communities have labored to produce American food for centuries and deserve food security. When discussing food security, they frequently mention that it is necessary for sustaining economic profit over time, to borrow language from the UN's Food and Agriculture Organization (FAO 2018).

In San Juan, people instead spoke about making connections across time and place and between people and land. "Sustainability," if we were to use the term, would be akin to "being in time" while also being connected with others. As we learned about sustainability in San Juan, it became clear that a primary obstacle to sustainability was the closed national borders preventing these connections to exist. The work of enforcing territorial boundaries—through policing,

imprisonment or confinement, bail bonds that trap people in tremendous debt, deportation, disappearance, or murder—produces many forms of harm and hunger that shape community life.

There is no “sustainability” in a world with closed borders, where families are torn apart as people are dispossessed of their land. And yet, in all the talk about “nutrition for sustainable development” I have heard in nutrition policy boardrooms and scientific conference centers, I have never heard discussion of abolishing borders, which would facilitate easy travel across international lines. Hunger would clearly be lessened by allowing for—even encouraging—mobility, but nutrition policy makers never address the need to grant Indigenous people sovereign passage across the land. The direct and unquestionable impediment that closed borders present to living (and maintaining, and enduring, and being reasonable, and surviving) for people in San Juan simply does not arise in conversations about “nutrition for sustainable development.”

This chapter could have focused on the systemic cruelty that allows a community of sustainability experts to disregard the domain of policy that is the most painful in San Juan. The absence of discussion of opening borders among policy makers claiming to care about Guatemalan futures is clear evidence of the “orchestrated abandonment” detailed in previous chapters (Wilson Gilmore 2015). These are experts with “a solution in search of a problem,” as Solomons was fond of saying. They had their products, brands, and ideas. They weren’t concerned with listening to, learning from, or responding to the problems Maya-Mam people were actively struggling with in their lives.

This book highlights the systemic cruelty in nutrition science and policy, showing that people involved in the field of nutrition separate the stated intention to help from the often-punishing effects of their work in a way that reproduces harm. Yet in the space of this chapter, I also want to do what García Meza, García Maldonado, and I did in San Juan in my own form of analysis: slowing everything down, to make evident that the story of the cruelty of nutrition is itself not the only story to be told. Within the cruel spaces of maternal health science there are also “disruptive” thinkers attempting to transform the field: an old Black scientist-physician who has many times put his life on the line, a Guatemalan mother-scientist whose travels around the world have given her insight into care at home, a White anthropologist with US settler ancestry funded by a generous grant from Dutch taxpayers in the Netherlands who often sits with her own complicity in the same systems she critiques. We are all, in different ways, attempting to rework the conditions of cruelty and transform the foundations of power.

Solomons and I are both drawn to his second “S” of science, skepticism, and, with this, to critique. We are attentive to egos and imperialist irony and systemic cruelty and want to work to take away their force. But critique-of-critique also puts us in a place of seeking tools other than critique to take up in the fight-work and the care work of dismantling mal-nutrition’s harmful effects. This chapter has

taken a step back from critique to detail how scientific methods and processes amplify some activities while foreclosing others, producing some kind of knowledge and expertise as “robust” and others as mere description. I have hoped to illuminate how people navigate these various possibilities for science—sometimes participating in cruel systems not because these people are cruel but because they are caught up in systems that have come into existence because these systems are good at reproducing themselves.

At the end of Solomons’s speech on reductionism, he pointed to a nutrition scientist who had let activism take over her life. Swept into political advocacy, she had stopped publishing research, he said with disappointment. I interjected to recount some of the stories about sickness, missing partners, and suffering children I had recently heard from people in San Juan. Just the day before, I had been with a mother whose disabled child was starving because of a lack of dental care that would help him eat. As she watched him waste away, she was devising a plan to move north, in the hope that somewhere she could find the anesthesia he needed for the surgery that would save his life. I asked Solomons as sincerely as I could how he could possibly stand by and not engage in advocacy given what people in Guatemala were forced to endure.

He explained that he was committed to nutrition science precisely because of how people were harmed. Years later, listening to our conversation on my voice recorder, I hear this:

EY-D: Do you consider yourself to be an activist?

Solomons: Yes! But I don’t consider myself an activist when I do science. I can separate the two, because of S 1 and S 2. Activism cannot pass for science. Advocacy should be based on science. But in and of itself it is not academic. I would advocate. But I wouldn’t publish about it. I wouldn’t let this become part of my science.

Solomons’s science asked for a separation between science and activism that allowed him to engage in science with skepticism and activism with moral clarity. Meanwhile, ethnographic research—whether in spaces of policy or in kitchens—asks that we not separate ourselves from the objects of our attention. To write ethnographically is to write in a way that cares for the messy processes of research’s production. Solomons and I are not in alignment in our methods here.

But I have also never wanted to engage in a research encounter in Guatemala, or elsewhere, thinking that I know better than those I’m with. That would undermine learning and, with this, the purpose of my work. Ultimately, both of us might be right, and we might not need to pick one or the other but can keep multiple versions of both science and activism on offer. Sometimes Solomons’s skepticism in science and moral clarity in activism might be the right approach. And sometimes we might need science driven by commitments and activism that is responsive to complexity. Knowing when this is the case cannot be decided in general terms but through engagement with

the specificities of the conditions at hand. One might find oneself asking whether this commitment to situating knowledge makes for a strong foundation on which to bring about transformation. Indeed, I sometimes find myself wondering if telling nuanced *historias* of violence might undermine our ability to act against this violence, making events complex when clarity is called for. Yet it is my hope that responding to and working with this complexity is a step toward transformative change.

This theory of how to transform the world is not my own but one I learned in conversation with García Maldonado, García Meza, and the women who spoke with us about *tanq'ibela* and its translations. In the languages of sustainable development given to us by the UN, the world is in peril and we must come up with solutions for a better tomorrow. Foisted on us is what the anthropologist Lamia Karim (2014, 52) calls the great modernist question: "What should I do?" The question demands heroism: the problem is urgent; we must act to save the future.

The *historias* of *tanq'ibela* I have told set us on a rather different path for both science and politics—not of speeding up to save what has not yet come to pass, but of being in life, however uneasily. Its action, its activism, lies in presence, not futures. In the face of development's devastating promise of a better, happier, richer tomorrow, it asks instead to be in time. Lest my description sound romantic, I assure you it often is not. It is fingers-in-the-soil, bloody childbirth, pungent, vibrant, messy, effervescent, and difficult. At least, this is how I might uneasily translate it—though I have already moved it through multiple languages.

Historias of *tanq'ibela* offer a provocation to sustainable development: against the momentum of ever-more-urgent future perils, these *historias* embrace the space of being in time. As others rush by, they turn askance to make space for difficult, sideways knowledges. "Transforming our world? Really?" they ask skeptically. They then respond with clarity: We cannot start this work in a meaningful way without recognizing the gaps and fissures between different and sometimes irreconcilable agendas. In the place of asking for a unified theory of change, they embrace many theories of transformation.

"Which definition of sustainability do we want?" the president of the Latin American Society of Nutrition had asked the Spanish-speaking audience of the nutrition congress discussed at the start of this chapter. To that, I respond here that we should not pick a definition but find better ways to work among the numerous, unstable definitions we have among us. This response asks for a different kind of policy than that requiring a single heroic leader or a single path of action, both of which frequently dominate American politics in both the US and Guatemala. Instead of requiring that people speak, think, and translate to and from English, it recognizes that if we are not incorporating languages other than English into sustainability policy, we are already missing out on a lot. This is a politics that asks for the agility of being with multiple languages, sciences, and activisms, a politics willing to do the difficult, painful—and sometimes joyful—work of confronting, refusing, working within and against, and transforming the harms of nutrition science.