

4 CORPORATE SELVES

There can be little doubt that engineers derived substantial benefits from their alliance with business. But there was a danger that in gaining worldly things the engineering profession might have lost its own soul.

—EDWIN T. LAYTON JR., *THE REVOLT OF THE ENGINEERS*

Jay, a petroleum engineer in his midthirties, arranged the rock samples on his table while eyeing the crowd in the room. Two elderly white women wearing matching red lipstick and nail polish sipped lemonade and approached him. The company Jay worked for, a large oil and gas operator in Colorado, was hosting a community meeting in this wealthy gated residential development because they were seeking to develop new wells that would require hydraulic fracturing a few miles from some of the homes. The meeting was held in a clubhouse that otherwise provided a gathering place for senior citizens to play bridge, exercise, and attend other social events. Designed to quell concerns about fracking, the display behind Jay illustrated the depth of the wells by stacking seven images of the Empire State Building one on top of the other. It prominently labeled the “impervious rock layer” immediately above the well, the aquifer, and the cement and steel pipes used to encase the flow of natural gas to the surface. Wearing a company polo shirt, Jay greeted the women with a smile and asked them what they thought about the image. They asked if it was real. He assured them that it was an accurate portrayal of the subsurface and then invited them to touch some rock samples to feel for themselves how sturdy the layers were. They exchanged a few jokes about

their contrasting levels of physical fitness, and then the women moved on to the next booth, saying to each other that people who thought fracking would contaminate groundwater were “simply uninformed.” Jay smiled and scanned the crowd for who would approach his table next. “I love having a chance to get out here and talk with folks,” he said to me. He had volunteered to do the event on his own time, he said, because he “believed in” what his company was doing.

Jay’s booth was one of about ten set up in a U-shape around the room, each dedicated to a different concern, such as water, safety, pipelines, and leases. Each station was staffed by someone with expertise in that area—most often an engineer—dressed in an official yet casual polo shirt that seemed at home with the golf course visible through the windows of the clubhouse. Additional employees, dressed in identical company polo shirts, greeted newcomers at the door and offered to help them find the table of most interest to them. The employees easily outnumbered community attendees by a ratio of two to one. To engage the people passing by, each station included visual displays and hands-on activities, such as clear plastic cylinders filled with fracking fluid or flowback fluid, inviting people to pick them up, swirl them around, and examine them from multiple angles to get a more visceral sense for the fluids they had heard about in the news. Throughout the evening, people milled around from one station to another, sometimes stopping at a large open area with a generous buffet of appetizers and tall tables, intended to invite conversation. An official company public relations video extolling its social and environmental responsibility efforts looped continuously in the background.

On the heels of the 2010s fracking boom, this distributed “science fair” meeting became a key practice of accountability used by oil and gas companies in Colorado to manage their relationships with the people living closest to their operations (figure 4.1). The state was a central site in nationwide fracking debates. By 2020 it had witnessed a quadrupling of crude oil production in the previous decade and ranked in the top five states for oil and natural gas production.¹ Most of the country’s then-major players—including Anadarko, BP, ConocoPhillips, Encana, and Noble—operated in Colorado along with hundreds of smaller firms. In 2018, the



Figure 4.1

A petroleum geologist answers questions from attendees of a community meeting in Colorado, July 2017. Photo by Paul Aiken/Boulder Daily Camera via Getty images.

Colorado Oil and Gas Association estimated that 89,000 people worked in oil and gas in the state. This oil and gas boom coincided with massive suburban growth. That same year, the number of Coloradans living in “petro-suburbs” was staggering: 429,000 people were estimated to live within one mile of an active oil or gas well.² The state rose to national notoriety for conflicts between the industry and activist groups seeking to halt it, and industry actors began experimenting with novel public engagement techniques, such as science-fair-style neighborhood meetings.

The power of these practices of accountability stems from the productive slippage between the corporate “person” and the human person representing it.³ The community meetings positioned engineers to speak for the corporations employing them. To ask a question of the young polo-shirt-clad engineer was also to ask a question of the company whose logo adorned the shirt; Jay was positioned to speak and be recognized as speaking on behalf of the company—unless, of course, he marked his comments

as departing from the larger corporate discourse with words or a wink. He and the other employees and contractors presenting that evening had gone through training to ensure that they stayed “on message,” but they were also explicitly encouraged to share their own personal stories to facilitate more meaningful connections with the attendees. These meetings illustrated both the internally variegated nature of the corporate form and the work required to make it hang together.

This chapter investigates the distributed agencies that characterize the corporate form, focusing on how engineers navigated their participation in an extended corporate “person.” Like other participants in collective life, engineers found themselves “not merely to be part of a collective, but actually to be that collective, or more precisely, to be an instance of a collective.”⁴ Acknowledging participation, to riff on Christopher Kelty’s incisive critique of the concept, is not so much an ontological claim (“I am the corporation”) as it is a moral or ethical one (“I am responsible for all of those things associated with the corporation, and the corporation is a symbol and instance of the things I am responsible for”). The vexing part of being “both individual and collective at the same time” is therefore the question of personhood and accountability.⁵

As employees, engineers found themselves held accountable not just for their own actions but for the actions of the multiple others constituting the corporate form. Those I met wavered between enthusiastically enacting corporate forms, folding their agencies together with multiple others and sharing in collective accountabilities, on the one hand, and attempting to detach their agencies and accountabilities from that broader entity when they found them to be compromised, on the other. This movement is vividly illustrated in the shift from engineers speaking with the *we* of the corporate form to referring to those entities as *they*.⁶ Tracing how engineers managed distributed agencies and accountabilities and moved between enacting and detaching from corporate forms, I argue, provides a more nuanced understanding of engineers’ agencies in the context of corporate work than those offered by dominant frameworks that either condemn them for being conformists or celebrate them for being whistleblowers.

AGENCY AND RESISTANCE

Agency has been a persistent and contested theme in social theory.⁷ Anthropologists largely understand *agency* as the “socioculturally mediated capacity to act.” This definition signals that these capacities vary by context and opens up space for the agencies of other-than-human entities and things, termed *actants* in actor-network theory.⁸ Anthropologists resolutely hold that the agency of humans cannot be equated with free will, since agency is mutually constituted with social structure. Franz Boas, considered the father of American anthropology, articulated as much in his early observation that the “activities of an individual are determined to a great extent by his social environment, but in turn his own activities influence the society in which he lives, and may bring about modifications in its form.”⁹ In short, people’s capacities to act are shaped by social structures, but social structures in turn are shaped by those actions. This basic insight animates what became known as practice theory¹⁰ and poststructuralist theories of subjectivity.¹¹

Feminist anthropologists caution against a common tendency to equate agency with resistance.¹² Saba Mahmood argues that “if the ability to effect change in the world and in oneself is historically and culturally specific (both in terms of what constitutes ‘change’ and the means by which it is effected), then the meaning and sense of agency cannot be fixed in advance, but must emerge through an analysis of the particular concepts that enable specific modes of being, responsibility, and effectivity.”¹³ In her ethnography of a women’s Islamic piety movement in Egypt, the agencies Mahmood encountered sought not to disrupt the status quo but to embody virtues that Western feminists would associate with the reproduction of patriarchal systems of power. This led Mahmood to advocate for “delinking” the concept of agency from the goals of the progressive politics, arguing that such a link leads to the “incarceration of the notion of agency within the trope of resistance against oppressive and dominating operations of power.”¹⁴

The question of agencies that do not resist is especially germane for studies of engineers and engineering. Edwin T. Layton Jr. and other historians mark the end of the Progressive Era in the United States, around the

1930s, as the watershed moment in which North American engineers relinquished professional autonomy in favor of stable, well-paying employment and management tracks inside of those corporate forms.¹⁵ The context of corporate employment has been largely theorized as a tainting and stultifying imposition on the ethical agencies of their employees. In post-WWII United States, sociological and popular concern proliferated over the state of employees in increasingly large and powerful corporations and government bureaucracies, including foundational works in organizational theory such as C. Wright Mills's *White Collar* (1951) and William Whyte's *Organization Man* (1954). Engineers figure in this literature as icons of white collar conformity, loyal to their employers to a fault. Sociologist Gideon Kunda summarizes this view of the organization man as someone for whom "identification with the organization overrides all else and leads to the inversion of means and ends, a preference for conformity, a predilection for group-think, a fear of creativity and initiative, and a dearth of ethics."¹⁶

This body of scholarship worries that people are not able to separate their sense of self from large organizations that seem not just to demand their time and energies but to "bind employees' hearts and minds to the corporate interest."¹⁷ Or, as economist Richard C. Edwards wrote in his 1979 treatise on the transformation of work in the twentieth century, "Now the 'soulful' corporation demands the worker's soul."¹⁸ Layton memorably expressed this fear for engineers in particular in the concluding sentence of his treatise on the compromised social responsibilities of the engineering profession, which serves as the epigraph for this chapter. This concern continues to be stoked by recurring revelations of practicing engineers who feel pressured to prioritize their employers' interests over the health, safety, and welfare of the public, as paradigmatically captured by events such as the *Challenger* space shuttle failure, the *Deepwater Horizon* offshore drilling rig disaster, and the Volkswagen diesel emissions scandal.

The persistent use of the word *soul* by Edwards, Layton, and others studying the plight of corporate employees is striking, and anthropologist Marcel Mauss's historical trajectory of personhood helps explain why.¹⁹ Mauss traces Western notions of the "soul" back to early Christians, who added a metaphysical dimension to the Latin and Greek conception of the

“person” as a “sense of being conscious, independent, autonomous, free and responsible” around the first century. He then argues that the concept of the “self” emerged in the sectarian movements of the seventeenth and eighteenth centuries as the experience of consciousness and reasoning. While the evolutionary aspects of Mauss’s argument deserve the critiques directed at them,²⁰ this genealogy helps explain the tendency for academics and engineers themselves to use the concept of soul rather than others to critique corporate employment. In this lineage, the soul is the seat of ethics, the questions and judgments about expectations, accountabilities, and right and wrong.²¹ And ethics is precisely what corporate employment, through its mandate for profit generation, is widely believed to compromise.

Scholarly work in the field of engineering ethics addresses the question of engineers’ corporate employment by upholding the practice of whistleblowing, in which an engineer breaks ranks to call attention to unsafe or unethical practices. Yet embedded in this focus on whistleblowing are troubling assumptions about engineers’ agency. As summarized by Deborah Johnson:

Neither engineers nor publics seem to expect that engineers will blow the whistle or do something when they see a threat to the safety of the public. On the one hand, engineers who blow the whistle are often seen as heroes. On the other hand, those who stay silent are rarely held to account. It is as if publics expect engineers to be loyal to their employers when their employer’s interests are in tension with the public good. . . . The ambivalence here is consistent with a long understood tension in the role of engineers; they typically work for employers and clients under the demands of a business environment while at the same time they have special expertise and the pressure to act on that knowledge. The latter is usually associated with acting as a professional.²²

In engineering ethics’ focus on whistleblowing, engineers are treated as agents of their own right when going against the corporate grain, with the implication that they are otherwise corporate automatons and therefore perhaps not even true professionals.²³ Yet as Gary Downey writes, “Agencies that do not challenge are still agencies, regardless of whether their performances of acceptance are discernibly active or passive.”²⁴

ENACTING THE CORPORATE PERSON

The phenomenon of engineers donning their corporate polos and putting their “selves”—their stories, their experiences, their expertise—at the service of improving the public perception of the corporate forms employing them is cut in the grooves of a much longer history of efforts to craft sympathetic “corporate souls.” In the twentieth century these efforts frequently involved representing corporations in human form, ascribing the qualities of admirable human persons to the corporate persons they were intended to represent.²⁵ More recently, a team of researchers studying Norwegian energy companies point to the productive tension of the corporate person, stating that companies’ power “relies on the embodied work of individuals who play between the scales of the personal responsibility and institutional responsibility” and are positioned to “embody the ethical agency of the corporation.”²⁶ The engineers and applied scientists I came to know were all keenly aware of how they “played” these scales of responsibility as they engaged in practices of accountability, especially as they represented controversial companies and industries to a wide range of people, from their closest friends and family to strangers who publicly criticized their employers and academics who requested interviews with them. These practices positioned them as not simply employees *of* those companies but *as* the company, sharing accountability for its actions.

The engineers I met strategically managed their participation in an extended corporate person as they tried to set boundaries of accountability that resonated with their own ethical frameworks. At times in our interviews, they enacted a seamless integration of their personal mission and the mission of the corporate form. In part, this is likely an effect of the research context itself, as they may have viewed the interview as an opportunity (or perhaps requirement) to put a smile on the face of the corporate person—echoing Stan Dempsey’s term from chapter 3—for the anthropologist asking questions to write a book for a potentially critical audience. A few interviewees were unwilling to admit facing any ethical dilemmas on the job, perhaps anticipating that even my best efforts to keep them anonymous could fail and expose their criticism of their employers or their own

missteps. Others emphasized fissures in those larger corporate forms to disavow responsibility for the ethically unsavory behavior of their coworkers or managers. They seemed to relish diving into the gaps they experienced between what they thought was right and what “the company” eventually did. Most acknowledged that those ethical gaps existed but avoided going into detail about their specific content. Collectively, these materials underscore that interlocutors’ interpretations of interviews and research projects shape what they are willing to share. But even the most “on message” interviews are ethnographically valuable, as they show the enactment of the corporate form in real time. To greater and lesser extents, engineers moved between enacting a corporate form and taking distance from it during a conversation, a project, or even a career.

These various enactments of the corporate person—as well as refusals to do this enacting—show that the senses of self held by my interlocutors were shaped but not determined by the corporate context of their work in industries that came under fire by others. This insight builds on Kunda’s theory of organizational selves. In his ethnography of a high-tech US engineering company in the 1980s, he illustrates a range of tactics through which employees managed their relationships with their corporate employers. He argues that many engineers strove to create an “organizational self” by creating boundaries between their work and personal lives, by emotionally distancing themselves from the workplace, and by strategically embracing and distancing themselves from the organizational roles set out for them. But he also describes engineers who did invest their sense of self into the organization, embracing its norms and interests as their own. Importantly, rather than characterizing these employees as dupes who have swallowed a corporate line, he questions simplistic distinctions between “fake” and “authentic” selves to argue that senses of self are always crafted in contexts of power and control.²⁷

One of the strongest ways engineers performed an alignment between their agencies and the corporate form employing them was to position themselves as personally advocating on behalf of their industries.²⁸ Kevin, for example, confessed that he knew that petroleum engineering was for him when he started dreaming petroleum engineering equations in his

sleep as an undergraduate, including one instance in which he dreamed the exact problem that he encountered on an exam the following day. Young and ambitious, he wore trendy glasses that made him seem at home in downtown Denver's avant-garde coffee shops. He was married to an artist and enjoyed socializing with her politically progressive circle of friends. When we met, he had been working for about five years for an oil and gas operator known in Colorado for being on the forefront of community relations and environmental sustainability. He was one of the first volunteers to do formal and coordinated public outreach on behalf of his company, such as giving presentations in high schools about oil and gas. This same zeal infused in his social life, he explained:

I'm pretty infamous for turning normal dinner double dates into hydraulic fracturing discussions. And usually involves taking the silverware and everything and using it as props. I can't stop talking about it most of the time, which is annoying for my wife, but . . . I've kind of chilled out. And once I've had the discussion with someone once or twice—once, probably—I chill out about it. Because I'm excited about what I do, it's easy to talk about it and get other people excited about it, too. I had a friend come up to me or tell me the other day that she ran into a petition gatherer for an anti-fracking initiative. And she was like, "I told them I think I'm for fracking." And I was like, "There we go. I'm glad we knew each other, because, you know, hydraulic fracturing is such an obscure topic for most people." I, at some point, had a conversation with her, and she was willing to defend me and the industry.

In his narrative, Kevin placed his own outgoing advocacy at the service of the corporate form employing him and the industry at large, linking their accountabilities. He was like other young engineers I met who were less than ten years out of their undergraduate degrees and enthusiastically "played the scales" of personal and corporate accountability. To challenge people's preconceptions of their industry, they made their position inside of the oil and gas industry—and their status as enactors of their corporate employers—hypervisible in social circles that might otherwise be hostile to them.

Abigail, similar in age to Kevin, described the same propensity to represent her company and industry among its critics, especially from her

own social circles. Describing herself as a petroleum engineer, feminist, and outdoorswoman, she said that she chose a career in oil and gas after attending a left-leaning liberal arts college because she was compelled by the “disconnect there between people who worked in the industry and the public.” Her engineering friends, she said, “opened [her] eyes” to the oil and gas industry while her liberal arts peers demonized it “in the same breath as they drove their SUVs up to their condos in Vail to ski.” After graduating with a master’s degree in petroleum engineering, she chose to work for a company she viewed as “progressive” so she could “be a force from the inside” and make immediate improvements for the people and environments affected by oil and gas development. After explaining how she designed well pads with smaller footprints and quieter machinery to be more respectful of the people who lived closest to them, she said, “We need people working on renewables, we need people doing research, but ultimately their solution is not going to make an impact probably in our lifetime. . . . But the impact that you can do today, a petroleum engineer or an engineer in oil and gas, you can see the impact of it tomorrow. So that’s super powerful for me in terms of social responsibility and sustainability.”

Abigail poured her time and energy into volunteer opportunities, proudly wearing her company polo shirt to events as such as those encouraging girls to consider STEM (science, technology, engineering, and math) fields. She was one of the most active ambassadors of the Society for Petroleum Engineers I met, serving on multiple committees and supporting their outreach efforts on her own social media accounts. In their interviews, Kevin and Abigail portrayed their public enactment of the corporate forms employing them as simultaneously an expression of their own self. This intentional intermingling played the scales of responsibility, attributing their own ethical commitments to the corporate form and even industry as a whole.

Intermingling Environmental Ethics

Throughout my research, this intermingling of the engineers’ selves with the corporate forms employing them often seemed to be done with an eye to bestowing an engineer’s environmental commitment to the corporate form. Chapter 3 describes how Stan Dempsey and Art Biddle engaged in

this practice when they positioned themselves and their employees as outdoor enthusiasts; if the head design engineer, Kay Ferrin, was a ski instructor, for example, the implication was that he would not propose mine plans that would endanger the ecologically sensitive alpine habitat.

This attribution of environmental ethics to corporate forms via the people enacting them was ubiquitous by the time of my research. Dan, a geologist, said he welcomed work for a mining company because it provided him a stronger platform to enact his environmental ideals. He described himself as becoming fascinated by mine reclamation early in life, as he went hiking in the mountains, finding abandoned mines and seeing the stream pollution they caused. His initial work for consulting firms on surface mine reclamation was frustrating, he said, because clients pushed for the minimum necessary, which offended his own senses of public, professional, and personal accountability. “Do I want to put my name on something?” he asked himself. “Names are what goes in the newspaper. Names are what goes on your reputation.”²⁹ Whereas he felt a strong desire to separate his sense of self from the work that he did as a consultant, he said that as a corporate-employed environmental scientist he felt empowered to put his own dreams into action and be held accountable for them. For example, he supervised the planting of wildflowers and aspens on reclaimed mine property alongside a highway frequented by outdoor enthusiasts. “Every time I see a photographer taking that shot,” he said, “I feel a little proud about it.”

Dan’s experiences resonated with multiple ranchers and outdoorspeople in my previous research who described becoming environmental scientists and engineers in Wyoming coal mines so that they could participate in reclamation efforts. One explained that she got the “warm fuzzies by going home with the knowledge that the critters, the natural grasses and everything else are going back like it should be.” A public relations campaign by the company she worked for played up the environmental commitments of their employees as evidence of the company’s approach to environmental responsibility as a whole. In one ad, a fellow engineer explained that she could be an “environmentalist” who is proud of her family’s ranching livelihood while working for a coal company because the company was committed to doing the right thing. These statements again play the scales of

accountability, aiming to bestow an environmental ethic to a company by highlighting the environmental accountability of its employees.

Performing Skepticism

At the same time as engineers sometimes celebrated this intentional intermingling of personal and corporate values and accountabilities, they also took care to assert that the alignment was not the result of having been brainwashed by their employers or managers—in a sense, claiming their own agency rather than allowing an interpretation that would ascribe it to the corporate forms employing them.³⁰ Laura, a petroleum engineer, emphasized her own agency in critically assessing the company's outreach materials. She began the interview by positioning herself as coming from a “science background” that taught her to always question, “Where'd you come up with this? How do I know it's the truth?” She portrayed herself as initially skeptical of “corporate,” which she referred to as *they*, distinguishing it as an entity separate from herself:

When I first started the [outreach] program, I'm like, “Oh man, what are they asking me to do here, and how much do I really believe in it?” You know, the company's telling me to do this, but if you don't believe it yourself, it's useless. I mean you can't do it. And so I struggled with that at first. I'm like, “Is this just, you know, corporate trying to get me to do something and why am I doing this?”

As she described her growing “belief” in the company and the program, she switched to using the inclusive *we* instead of the separate *they*: “I kind of dragged my feet on it at first, but the more I got into [the program] and I started educating myself on what we're doing, how we're trying to mitigate, I'm like, ‘Wow, we are really trying compared to other operators.’ So there was that whole buy-in kind of perspective on a personal level that I had to go through.”

Relating skepticism about corporate discourses and its eventual resolution through analytic reasoning wove through engineers' narrations of their careers. Abigail said that though she had misgivings about work in the oil and gas industry, “I chose to work for [company] because they did things the right way. I wanted to be a part of that, a source of positive change from

the inside.” River, the petroleum engineer who lived in a town generally opposed to oil and gas production (chapter 2), said he came to welcome the skepticism that came from his left-leaning family and integrate it into his work in the industry. He said he kept a critical eye on what the company is claiming and tried to seek out other interpretations or viewpoints before arriving at conclusions. He explained, “I would always question if I was getting brainwashed by what the company was telling me. Am I missing a piece of the puzzle or a piece of the data?”

Through such confessions, engineers drew attention to their own agencies analyzing corporate discourses before adopting them, in effect asserting their own agency as distinct from the discourses and mandates of their corporate employers. Anthropologists would argue that these performances of skepticism also, however, reinforce corporate authority: they perform yet contain internal differences and portray companies as being willing to listen to detractors who think those corporations are in the wrong, yet they are ultimately offered as evidence of the company being in the right.³¹

Concealing Corporate Personhood

Not all of the engineers I met relished enacting the corporate person in their social circles like Kevin and Abigail did. Those who described how they concealed their corporate employment were careful to attribute their unease to what they perceived as narrow-mindedness among their friends and family, not any ethical quandaries with the companies employing them. River was married to fellow mid-career petroleum engineer Emma (whose memorable confrontation with landowners is analyzed in chapter 2), whom he met as an undergraduate. Both tried to minimize possibilities that they would be recognized in their small town as representatives of their companies or the oil and gas industry. They said they did not view their employers as ethically suspect or in conflict with their own morals but felt their own ethical commitments sometimes aligned more closely with those of their corporate employers than with those of their families. River was born and raised in the town where they lived. He described it as a “small, liberal, green community” and his mom and dad as “very, very green parents.” He vividly remembered their disapproval of his career choice when he returned home to tell them he was going to major in petroleum engineering.

So when I came home . . . I had multiple members of my family and multiple family friends tell me what a terrible decision that was for a number of different reasons, everything from it's a diminishing resource and the industry is not going to be around long to, "This is a slap in the face, how could you?" And I had some family friends that are landowners within the productive portion of the [area] that were strongly telling me, "You need to come out, you need to see these wells, you need to see what this company has done to my land, and then you need to reflect on yourself to determine if that's what you really want."

After many conversations such as that one, River said he stopped trying to change his family's minds about his industry and resisted their attempts to position him as representing his employer, steering conversation instead to their common interests enjoying the outdoors. Indeed, it was River and Emma's shared love of the outdoors and family that pushed them to move back to River's hometown once they both found oil and gas jobs in the area. The town was popularly recognized as a mecca for outdoor recreation, including skiing, snowshoeing and other snow sports in the winter and hiking, camping, and biking in the summer. River and Emma enjoyed those activities with their two young daughters and an extended network of friends and family. While they shared their love for the outdoors with that social circle, they both kept quiet with them about their professional work, even though they both loved their careers.

Frustrated by how "close-minded" Emma found people to be about her work and her employer—a major multinational with long-term interests in the town—she began consciously concealing both her occupation and the company employing her when meeting new people.

I know [my company] is very involved in the community here but they try to run under the radar because here specifically it is not perceived very well. If [the company] is sponsoring something, it's not perceived as if they are doing a good job, it's perceived as if they are trying to make up for something they've done wrong. A number of years ago, all the [company] trucks had decals on them and . . . they had to remove all the decals from the trucks because people were getting harassed and trucks were getting vandalized. I feel like it's kind of sad, because [the company] is such a big part of the local economy

and people don't talk about it. If I go someplace and I don't know who is there and I am asked, "Who do you work for?" I just say I am an engineer. *I don't say I am a petroleum engineer. I don't say I work for [the company] unless they push. We don't talk about it.* (emphasis added)

River and Emma were not alone in downplaying both their professional selves and corporate employers in their kin and social circles. A close friend of theirs shared that she stopped wearing a biking jersey emblazoned with the logo of the major oil multinational she worked for after fellow cyclists kept flipping her off while riding. In this case, her clothes made her available to be perceived as representing her corporate employer to other cyclists, many of whom take pride in reducing vehicular travel. While sociologists such as Kunda show that some employees create boundaries between their professional and personal lives to protect their personal sense of self against a hostile corporation, River, Emma, and the cyclist did so because they felt that their activities and ethical commitments as petroleum engineers were unwelcome in their kin and social circles. Their status as petroleum engineers who worked for oil and gas companies rested as one of their "potential identities" that could be made visible in their interactions with others.³² To reduce this potential recognition, they minimized the information that others held about their professional lives.

RELATIONAL PERSONHOOD AND DISTRIBUTED AGENCY

Given the delicacy with which engineers understood and managed their participation in the corporate person, the anthropological concept of relational personhood provides a more nuanced theory of engineers' agencies in the context of corporate employment. Though the terms *self* and *person* are often used interchangeably, anthropologists tend to treat the self as the "subjective and experiential sense that one is or has a locus of awareness—a private consciousness that, while it may be a universal human trait, is also socioculturally mediated."³³ Personhood, in contrast, most often refers to a socially recognized and assigned status of being a social, embodied, and sentient being, which provides a window from which to understand "distinct ontological and ethnopyschological ideas about the constitution of

persons, including persons' articulation with others, their interpenetration with the world around them, their moral or jural capacities, and the qualities of their agency."³⁴

Through cross-cultural comparison, anthropologists firmly demonstrate that conceptions of "natural" persons as bounded, unique, self-aware, and autonomous individuals are not universal.³⁵ For example, Marilyn Strathern draws on Melanesian ethnography to propose the influential concept of a relational person who is the "plural and composite site of the relationships that produced them."³⁶ These "dividuals" are composed out of relations, specifically exchanges of bodily substances and circulating gifts. The ethnography in the following sections suggests that even though the engineers maintained bounded notions of themselves as individuals with particular histories and personalities, the corporate context of their work meant that they also experienced something more akin to an extended personhood, in which they were not always the authors of their own actions, found their own agencies expressed by others, and were held accountable for the actions of a distributed network of others.³⁷ If more relational notions of personhood help shed light on the corporate form, as Marina Welker shows, my ethnographic materials suggest that such notions are also good for thinking through the personhood of the people like engineers whose employment positions them to enact those forms.³⁸

Almost all of engineers I met viewed organizational employment as inevitable for their profession. Being an engineer in a corporate context required them to submit to divisions of labor and institutional hierarchies that meant they were not always authors of their own actions. They had to take directions from their supervisors and their supervisors' supervisors. To do their "own" work, they had to use data created by others and work under constraints defined by others. They regularly had to pass their work on to others for revision, modification, and eventual implementation. Other employees and working groups inside their companies sometimes prioritized concerns differently, seeking to enact the corporate form to different ends. Anthropologist Thomas Yarrow vividly describes similar processes for architects, quoting novices who describe collaborative work by confessing that it is hard to "jump into someone else's brain . . . you have to swap

your thinking to the other person's thinking." He identifies a "paradox of individual creativity: of a person that thinks and acts at once as themselves and through others."³⁹ This paradox was also present for my interlocutors, posing direct implications for the interlinked accountabilities of corporate forms and the people who embody them.

Exploring how my interlocutors navigated this distributed agency sheds light on how engineers themselves attuned their actions to the desires, mandates, and agencies of others, at the same time as they tried to influence the desires, mandates, and agencies of those others as they tried to enact corporate forms to more accountable ends. This analysis shows how employees tried to hold together the corporate person in the face of competing enactments and again points to the social license to operate (SLO) as a key but contested mechanism for attempting to align disparate agencies.

The distributed agency required by corporate work could be a source of professional angst. An environmental engineer who worked for one of the world's largest oil companies, for example, was disturbed by the lax environmental standards to which some of its global operations held themselves. He said, using the *we* of the company as a whole, "You're like, 'God, we're not really . . .'" and then trailed off, leaving a pause that spoke volumes. He continued, "When you look at those kinds of places sometimes, you see we're not really doing things the way we should be doing things, but there's no community demand either, right? So you have to do what you can to influence, to do better with local staff." Here the engineer used the *we* to signal the collective responsibility—and public accountability—for far-flung operations that did not meet his (and, he implies, the larger company's) standards for ethical performance. Faced with this mismatch, he tried to use his position to influence his colleagues to change their approach to align more with his own.

Kevin described a more positive but still contested attuning of his and coworkers' agencies. When I first met him, he was a reservoir engineer who supported the planning of new oil and gas fields by estimating reserves, conducting economic evaluation, designing completions strategies (the techniques used to make a well ready for production, including the fracturing techniques), and analyzing options for managing produced water (the

water and its dissolved materials that flow upwell as a by-product of oil and gas production). He later was promoted to more of a planning role himself, where his responsibilities included pad size optimization, infrastructure planning, and process management. He made recommendations for how far apart the wells should be spaced, how long they should extend laterally, and how they should be fracked. Engaging in all of this work required him to manage, influence, and adapt to other agencies.

Kevin said he respected his boss, a fellow but more senior engineer, but described himself as “annoyed” by how the boss factored “intangibles” into the decisions he made and then forced the team to make. Their responsibility as reservoir engineers was to estimate and protect future value, including their company’s ability to drill new wells and entire new oil and gas fields. They were brought into wider discussions that would bear on that ability, such as whether and when to plug and abandon existing wells. When a well’s production dropped off, they could direct other employees either to use engineering techniques to stimulate more production or to end its productive life by cutting it off below the surface and burying it. Kevin and his coworkers used data sets on a well’s historic production and the performance of comparable wells in the field to estimate how much more the well could produce and assign a dollar figure to the remainder using market projections. They could then compare that figure with the costs and benefits of the “stimulation techniques” to enhance production. Where things became murky was factoring in the social ramifications of their decisions. Kevin explained, using the *we* of his small team:

A lot of it is looking at future value of the field. So if you have a landowner who owns, who is the gateway between us being able to drill a well or a pad of wells a lot of times, you look at your estimated recovery from a new drill, and that typically tips the scale. So we say, “Well, this well is still valuable, it’s worth half a million dollars. But compared to our potential to drill here sometime in the next five to ten years, it’s better to get rid of this well now.” And so that was usually the trump card we’d play when it came to these discussions, the ability to drill a well in the future. . . . So you have to pick sort of this value threshold, but also factor in the value of improving your relationship with that surface owner.

Quantifying the value of a landowner's acquiescence resonated with how Kevin described his decision making in general by saying, "I always think there's a dollar figure you can put on everything that you do." This style of analysis is a form of commensuration characteristic of engineering practice.⁴⁰ For Kevin, this approach resonated with engineering problem solving, which had clear comparisons, translatable units, and one right answer. In contrast, he said, his boss would make decisions based on "gut feelings" even if there was "no dollar amount that tells you to do it at that point." He and his boss therefore had to compromise, with the hope of "agreeing on a decision for different reasons."

Plug-and-abandon decisions also revealed tensions among teams, such as the landmen, who negotiated the lease agreements with mineral and surface owners, and the production engineers, who were responsible for protecting the current value of wells more so than the future value protected by Kevin's team. The landmen's desire to ensure positive relationships with current landowners and to nurture community-wide acceptance meant that they preferred to plug and abandon wells that caused friction with landowners and nearby residents, even if the production engineers could extend their life by bringing in large amounts of equipment to workover the well. This created what Kevin called a fault line between "people who are interacting directly with the owners versus the people who are in charge of the decision of the value and protecting the value to the company." Because even his fellow coworkers were accountable to different supervisors and work teams with different expectations—to say nothing of their varying personal ethical frameworks—Kevin had to learn to attune his own actions to others while also trying to shape the agencies of those others to align more closely with his own.

SOCIAL LICENSE AS AN ALIGNING DEVICE

A key device for facilitating the alignment of otherwise disparate agencies was the social license to operate (SLO). Chapter 2 proposes that the SLO was prevalent in the engineers' narratives, as well as official corporate discourses,

because it purported an alignment of industry actors' accountabilities to formal standards and policies, to their profession, to the public, and to their personal ethical frameworks. Chapter 3 provides a historical account of how the concept privileged industry by framing questions of resource production to be those of *how* such production can be done responsibly rather than *if* such production should happen at all. Those chapters primarily focus on relationships between corporate actors and their multiple publics. In this section, I illustrate how the SLO also served a crucial internal purpose of attempting to align the disparate agencies characterizing the corporate form.

Kevin explained that different teams inside of his company “can be at odds, but everyone’s job is to drive value, so you have to kind of come to agreement at some point.” Though the word value can have multiple valences, Kevin privileged the economic sense. In the framework he described, social acceptance figured as an organizing device to align employees and teams with disparate work responsibilities. Kevin explained:

One person’s goal is to drill the most wells. One person’s is to drill them cheaper. All the tension is typically because their goals aren’t the same. But from a stakeholder standpoint, I feel like I’ve never seen a conflict where people don’t pick something that benefits our stakeholders. I think the only tension is . . . just defining that line between making a decision that benefits the stakeholder versus retaining the value where we have the right.

While Welker compellingly shows that the rhetoric of the business case can be used by corporate personnel to justify multiple and contradictory ends, Kevin’s experience working in the midst of heated debates about fracking also speaks to the power of the SLO concept to bring together teams and employees with otherwise disparate interests. This power stems from its grounding in a business case that proposes community acceptance as profitable and profit as the ultimate goal of a company, as described in chapter 3.

One of the key differences between how mining companies such as AMAX Minerals Inc. and oil and gas companies such as the one employing Kevin was the dispersed nature of oil and gas production. Whereas mines are spatially intensive, their footprint does not have change substantially.

The oil and gas wells operated by Kevin's company, in contrast, were interspersed with suburban developments and ranches, and the company needed to drill new wells constantly to remain profitable.⁴¹ This meant that the number of the company's stakeholders was also constantly expanding, opening up opportunities for the company's image to be sullied. In Kevin's words, the ability of landowners to "change your reputation in the community is probably the biggest reason to work with them, because if we ever want to drill new wells or if we want to improve old wells, then you have to have the community see what you're doing as a good thing for them to say yes." Kevin saw that this line of reasoning was compelling to stockholders each time he was tasked with joining a quarterly conference call.

And so the cool thing about [the company] is that we have our stockholders on the same page as us from an engagement standpoint, because they will ask us questions about our ability to change the conversation in places like Colorado because they know that the value of their stocks that they hold is dependent on our ability to do things the right way in Colorado so that people have a good impression of us. These people, these bankers that seem so anonymous and just driven by profit are concerned that if we do things the wrong way in Colorado, then it hurts their ability to maintain the value of the portfolio.

Kevin perceived his company's shareholders not as an anonymous, aggregate mass but as specific people who had values that encompassed doing oil and gas development the "right way." Whereas social scientists may argue that such values-based investing ultimately encompasses moral concerns under the economic desire for profit,⁴² Kevin portrayed economic and moral value as standing on equal footing. He argued that what held the company, its leadership, and its investors together was a marriage between what Kevin and his coworkers described as "theology and capitalism." The company was led by a charismatic CEO who publicly described himself as a "Midwestern Christian" and enjoined his employees to view "work as a spiritual enterprise."⁴³ For Kevin, this meant that his company attracted stockholders and employees who shared a common set of values, making it easier to enact them on an everyday basis. He contrasted this with other companies by saying:

If you're a publicly traded company, you have this weird allegiance to an anonymous stockholder that can skew how you think about things. Everyone I talk to, any industry, you're going to have that conflict, and it may, even if you're not publicly traded, it's your private equity owners versus your leadership versus you. But, I think where I'm at, they all line up together, which is really cool. And it makes working, makes the drive to work so much easier.

Kevin described the alignment between his values and those ascribed to the company as a source of professional fulfillment. He said the company's values were the main reason he chose his company when making his first job applications. He described the people he interviewed and eventually worked with as "people that lived within my own personal values and the corporate values that we have were actually lived out, and they aligned." He spoke directly to the unique personhood of corporations, saying, "There's a human side to everything that we do, and we can't separate the people's individual morality from what it feels like as a company we're trying to pursue." He then extrapolated a person's behavior to representing the industry as a whole: "You're also thinking about if you do things wrong, then you're affecting the industry's reputation as a whole, which is an even bigger burden to bear." The alignment Kevin felt between his company's leadership, investors, and employees formed the basis of his desire to work for the same company for the rest of his career. Kevin could have made a variety of arguments for the importance of this alignment, including prominently that such values would translate into steadier economic growth that would provide job security in the face of perpetual booms and busts. But instead, Kevin invoked the soul, saying, "I think there's tangible value to your soul to do things moral."

Kevin's comment brings us squarely back to the persistent concern that corporate work compromises engineers' souls, as influentially articulated by Layton and reiterated again and again by engineering educators and critics. As much as Kevin positively enacted the corporate form in our interview, even he was not a one-dimensional "organization man" of the kind critiqued by midcentury sociologists. In narrating his career, he acknowledged that corporate work could compromise an engineer's soul.

He experienced stresses and frustrations on the job and did not always agree with the decisions made by those around him. Yet he stayed, buoyed by an overall sense that enacting the corporation did not require him to compromise his own values, as that multiple, heterogeneous corporate form was held together by values that resonated with his own: by treating stakeholders well, the company should profit.

DETACHMENT

Whereas the engineers profiled in the chapters so far found a way to stay in industry, others left. Some became consultants, hoping to find more professional autonomy, as analyzed in chapter 5. Those who left industry entirely all described feeling constrained by the kinds of questions they could ask in their position as corporate employees. Elijah left a career in oil and gas seeking what he called “big R” rather than “little r” responsibility. He was a geological engineer in his twenties who had cultivated his own philosophy of accountability through what he described as a countercultural childhood in the American West, where he learned what he called the “intrinsic value and rights of nature” as something more than a resource to be developed. He further developed this view of the natural world when he started rock climbing as an engineering undergraduate student. After graduating, he went to work at a medium-sized oil and gas firm in Houston because few other options were available and he had student loans to repay. The company where he worked had an industry reputation for a forward-looking approach to environmental and social performance. He pushed the envelope by conspicuously reading books that were critical of fracking in the breakroom while he ate his lunch. His coworkers never criticized him, he said, seeming to respect his desire to understand their opponents. But he felt that the frameworks of responsibility presented to them by the company leaders was not robust enough to encompass the questions he wanted to ask and the discussions he wanted to have.

The company’s framework, grounded in the SLO, addressed only what Elijah called “little r responsibility.” He mouthed the dominant discourse by explaining, “If we have an environmental disaster, there would be some

serious ramifications from the state government or the EPA or the public. . . . The last thing we want to do is harm any social license to operate because that could overall impact production and profits.” He halfheartedly described himself as initially being “fine” with their approach but ultimately frustrated by how it constrained the questions he could ask about society’s use of natural resources. Turning to use the *they* instead of the *we* of the company, signaling greater distance between him and his coworkers and supervisors, he said:

With the little policies that they did, I actually felt pretty comfortable. They made sure to design their wells with a pretty high safety standard. People who disregarded these standards were severely reprimanded or terminated. I was pleased with those details. But to draw that distinction—I felt uncomfortable in Houston, a city designed for and by petroleum that is this energy draining, pinnacle of the problem of how our cities are designed. So I felt comfortable with my company’s ability to stand out from other companies in the social responsibility mythology in their operations. But at the end of the day, I felt uncomfortable with the fact that I was living in a city driving over twenty-five miles to the office every day in my car. I ended up using a van pool when they finally got that set up. But you can imagine that if you have this broader philosophy, which I had, there’s only so many microexcuses you can make to yourself until you find it impossible to reconcile how you’re living with what it is that you’re doing.

What Elijah called “big R” responsibility entailed asking probing socio-technical questions about how society was structured, not about how a particular well was designed. Those “big R” questions interrupted the underlying vision of complementarity animating the SLO framework for thinking about corporate accountabilities because they questioned the need to continue producing the same quantities of oil and gas in the first place. Lacking space to ask those kinds of questions at the company, he began working internationally for Engineers Without Borders before returning to school for a graduate degree, hoping that it would allow him greater opportunity to find work that allowed him to ask and answer more fundamental questions about natural resources and society.⁴⁴

Sofia, originally trained as a civil engineer, also returned to graduate school after becoming disillusioned with her corporate job early in her

career. Of all my interlocutors, she was the most critical of the reluctance of mining companies to fundamentally rethink their approach to communities. Sofia had long dreamed about working for the big mining multinational that operated a large mine close to where she grew up. When she eventually secured an engineering job with the company, she found herself awkwardly placed between the mine personnel—almost none of whom came from that region—and the poor communities who lived near the mine. Using the term *they* to describe her former coworkers and signal her own distance from the corporate form, Sofia said:

They [the company employees] are not really listening to them [the community members]. They're not really empowering them. They're not allowing them the opportunity for self-determination. They just put them down every time they meet with the community. They practically almost laugh in their faces, you know, because their concerns are different than theirs. That's why I walked out of there [the company]. The biggest thing that I took away was that, that it's not a public relations issue. It's something that was inherently embedded within the entire system of whose knowledge is valued and whose comments are appreciated and whose aren't. And sometimes it may—I don't know—it may have really been unfounded complaints. But the fact that they continue to approach them from such a disdain kind of perspective just made that even worse. Like it automatically, you know, just stopped any bridge for communication and the willingness of anybody to engage in a constructive session.

Sofia critiqued the systematic devaluing of local knowledge by the company's coworkers and managers. In her view, they espoused a commitment to listen but did not respect differences of experience, concern, and knowledge.⁴⁵ They did not rethink their own assumptions or even act on the concerns that local people brought to them. This disconnect made it impossible for her to invest her professional identity in the corporate form employing her, even though she had strongly desired to work for them because of the power they wielded in her home region. Her questions about knowledge and power led her to pursue a PhD that would allow her to ask and answer the kinds of questions that animated her broader concerns about social justice. At the time of our interview, she dreamed about bringing engineering students to community meetings to help them

“debunk” the elitism on the part of the company engineers responding to criticism and questions from the public.

DETACHMENT AND GENDER DISCRIMINATION

Workplace gender politics played a significant role in pushing out women engineers who had broader aspirations for industry accountability than they found in the corporate world.⁴⁶ The mining and oil and gas industries are frequently viewed as archetypes of masculinist work and male-dominated organizations. In their study of women geoscientists working in the oil and gas industry, sociologist Christine L. Williams and her colleagues found that corporate diversity programs can paradoxically reinforce male dominance and that the shifts in organizational labor glossed as the “new economy”—job insecurity, teamwork, career mapping, and networking—reproduce gender inequality.⁴⁷ In my own prior research, I grounded the relatively successful integration of women engineers and technicians into the Wyoming coal industry in the particular regional history and cultural context that established more gender-neutral expectations for work in the industry.⁴⁸

For the women engineers I met who left industry, they attributed their decision to two sources: their unfulfilled desires to ask different kinds of questions and the gender discrimination they experienced. Addie, a metallurgical engineer at the beginning of her career, left a corporate job in mining after encountering resistance to her conviction that natural resource production could not continue increasing exponentially. Her departure was striking, given that the ethic of material provisioning originally inspired her to work in mining. She remembered:

I could really get behind this idea that every day I made a product that went directly into a stream of more products. So literally, everyone was impacted by the work that I did: anyone who goes to a hospital, anyone who picks up the phone, anyone who has a roof over their head or copper pipes in their home. I could really, deeply feel that the work that I was doing was going to have an impact. I could literally see where it was.

Yet within a few months of beginning her career at one of the world’s largest mining companies, Addie realized that its executives were resistant to

considering alternative solutions around mining waste and recycling. She took part in the company's environmental and social outreach activities, such as river cleanups and elementary school visits, but began to feel a powerful disconnect between her environmental commitments and those that held together the rest of the company. "I could see that what I was doing like in theory was good," she recalled, "but it was really hard for me to feel that those engagements were actually authentic because I was basically just telling people, 'Keep buying things that have all of these goods in them because I'll go to the river and pick them up when you've dumped them there.'"

Addie also routinely experienced gender discrimination and sexual harassment at work. She reported having a boss who told her that "he didn't know how to speak with women" and "specifically started hiring only men" when he had multiple females reporting to him and he "felt outnumbered." She recalled instances in which women's advice to advance the position of women inside of the company was solicited and then flatly ignored. She summarized, "It was overall very hard to be a female. It's hard to progress as a female." She said, "The personal social side of things is really what ultimately made me leave. . . . I was never going to be able to make it through that organization and not get chewed up and spit out." She quit after three years to pursue an independent career in social impact consulting for organizations with no direct ties with the mining industry.

Other women left corporate work because they experienced discrimination, harassment, and thin corporate accountability but maintained a foothold in industry as consultants. Diane, a senior metallurgical engineer, experienced gender discrimination at her corporate job and could not stomach the unethical metallurgical accounting practices she witnessed. She recalled, "A friend of mine actually came to do due diligence [at the company] and I realized I didn't even want to invite him over for dinner because I didn't want to have a conversation about what was happening. It was like ethically I didn't think it was correct. I didn't want to be a part of it." Diane made her disapproval known while she was leaving, saying tersely, "I very seldom go quietly without people understanding. . . . My

philosophy is that I will stick around if I think I can change something, but when I reach a point that I understand that it's not going to change, it's time for me to go do something else."

June, a thirty-year mining engineer, left corporate work after tiring of constantly trying to convince her male colleagues to follow her suggestions to integrate social acceptance into their decision making. Their insults of her expertise prompted her to start carrying a coffee mug from her alma mater, the Colorado School of Mines, into her meetings: "I'd set it on the table because that was the subtle way of saying, 'Yes, I know what the hell I'm doing.'" She described being passed over for promotions and being paid less than men with similar or fewer credentials for doing the same job. She darkly joked about the stakes of reporting and attempting to rectify such inequities, saying, "I didn't push the sexual discrimination lawsuit because if you punch that one, you have to win the lottery and make everything you want because you're not working again."

June took particular pride in integrating local social concerns into her work of pit design and planning but frequently became frustrated when other engineers did not because they took a more narrow view of profitability. When designing a potential future mine, she thought holistically about the political, economic, and cultural context as constraints on her work. She described a project in South America in which the original open pit design would have taken out a rock formation with deep cultural significance for the local community. She redid the design to leave the formation in place.⁴⁹ Invoking the importance of the SLO, she successfully persuaded the company decision makers to follow her recommendation, even though it would "cost" the company several million dollars of potential profit. "But the key is once you piss off the community, you're never getting it back. You have to have your social license to operate. You either can [maintain the SLO] or you have no choice and you're done." On the heels of positive buzz about the project, the junior company was bought out by a large multinational. According to June, its project manager tossed out the pit design and the stakeholder engagement efforts she and her colleagues had developed, which turned the community permanently against the project and prohibited it from moving beyond the exploration stage.⁵⁰

Even though June's disappointment in the project not coming to fruition was palpable in the way she spoke, she did not begrudge the community for halting a project that would have been devastating to them. She said, "The interesting thing is in all of our careers, the one thing you have to do is look at yourself in the mirror. I do that on the social responsibility, on my engineering, on my ethics, and what I did at the job that day." She maintained some hope that engineers would eventually critically assess their projects from the perspective of the people who had to live next to them, if they could generate some empathy for those communities. Speaking with the *we* of engineers who work in the mining industry, she said, "The biggest problem we have is we've got to get out of our own skin. We may not understand their ways of life or anything else, but we have to stop and look at it."

* * *

June felt that consulting made it possible to reconcile her accountabilities to herself, to her profession, and to the public with the projects she chose to work on—a common theme explored in greater depth in chapter 5. In contrast, Addie, Elijah, and Sofia left their industries entirely because they did not find space with the corporate forms employing them to ask the big questions that motivated them. Rather than taking continued natural resource production for granted, Addie and Elijah wanted to rethink ways to reduce consumption. Rather than take hierarchical relationships between mining companies and marginalized communities for granted, Sofia wanted to rethink systems of knowledge to empower the people disadvantaged by the current ones. Both sets of questions exceed the frameworks of accountability that their corporate employers and industries in general presented to them. Addie's and Elijah's questions directly challenged the ethic of material provisioning by calling into question the need for such high levels of continued resource production. In so doing, they also challenged the company's limited identification of their own public accountability: to produce minerals, oil, and gas in an environmentally sound way. Sofia's questions challenged the authority of the corporate form

to define the terms of their public accountability in ways that empowered themselves to continue mining while disempowering the nearby community to have their concerns addressed.

While Addie, Elijah, and Sofia left industrial work entirely, most of the engineers I met who were critical of the limitations placed on them by corporate employment were like June and became consultants. As chapter 5 argues, this different institutional location opened up more opportunities for them to choose corporate clients and projects rather than be assigned to them. Like Addie, Elijah, and Sofia, they sought to ask bigger questions about natural resource production. But unlike Elijah and Sofia, they valued being a positive source of change from the inside.

CONCLUSION

When they thought about themselves and their work, none of the engineers I met held illusions of themselves as completely autonomous agents, solely responsible for their actions. Instead, they acknowledged that their work in a corporate context entailed—at least partially—becoming part of a larger entity whose actions and impacts exceeded their own. By accepting corporate employment, they stepped into an extended corporate person characterized by distributed agency: they were not always authors of their own actions, and they became partially accountable for the decisions and actions of their coworkers, managers, and fellow industry actors in general. They were frequently called to stand in for an entire company or industry: family members, friends, and even passersby who noticed a corporate logo on their clothing or vehicles could hail them as enacting their corporate employers and therefore as complicit in their behavior.

Some of my interlocutors seemed to relish performing a meshing of their own ethics and the corporate “person,” which entailed taking accountability for the actions that were collectively attributed to the corporate form and lending their own ethical commitments—such as to environmental conservation—to the corporate person. Others could not bear their agencies and attendant accountabilities being tied up with those of their coworkers,

supervisors, and industry actors in general, prompting them to detach from the corporate forms employing them. Most, however, described their experiences falling somewhere in the middle. When using *we* to refer to the corporate form, they emphasized their own enmeshment of the agencies and accountabilities of its disparate parts. When using *they*, they signaled that they were standing apart from that larger collective, almost always because they could not abide the actions undertaken in its name.

What does all of this suggest for Layton's fear of engineers sacrificing their souls for corporate employment, and its continued reverberations among engineers and the people who study and teach them? The engineers I met who stayed in industry felt that corporate work sometimes expressed many elements not just of their sense of self but of their *souls*—their understanding of what was good or right and their own efforts to bring it about. Enacting a corporate form did not always or automatically mean disowning that soul. *They themselves* were the corporation—at least part of it, and for some of the time—and they tried to align its disparate parts around their own ethical frameworks of what was good or right. Faced with managing their participation in an extended person comprising multiple agencies beyond their own, they appealed to concepts such as the SLO or company policies committing to environmental and social responsibility to influence agencies other than their own.

This relational view of the corporate form and the distributed agencies comprising it proposes a different approach to engineering ethics. Anthropologists keenly note that distinctions between the “relational” Melanesian person and the autonomous Western individual are likely overdrawn, as multiple notions of personhood can coexist in a single place, and the stereotypical Western individual is an idealized legal construct recognized as better reflecting philosophical traditions than actual human experience.⁵¹ Yet it is precisely this idealized, liberal autonomous agent that forms the backbone of US undergraduate engineering ethics education—a field dominated by philosophers trained in Western traditions.⁵² In short, an unacknowledged theory of personhood and agency underpins US engineering ethics training that is at odds with how the engineers I came to know

thought about the responsibilities and accountabilities of their work. My interlocutors did not just encounter corporations as behemoth external forces that tried to turn them into relentless profit maximizers, requiring them to either acquiesce by becoming automatons or resist by becoming whistleblowers. Instead, they themselves enacted the corporation, even though they could not fully control the rest of the agencies constituting this form. When weighing decisions about potential courses of action, they did so from a position as one node in a complex network in which they were accountable to and influenced by others, not as autonomous agents.

These ethnographic materials pose new questions for engineering ethics, especially relating to corporate employment. What does “professional autonomy,” construed as the prerequisite for public accountability, look like in a model of personhood as relational and extended? Whereas whistleblowing figures engineers as autonomous agents who either act against a separate corporate form or are completely subsumed by it, we could instead consider how engineers themselves enact corporations to different ends and under different constraints. Rather than simply celebrating the clear “resistors” who challenge and then leave their corporate jobs, my interlocutors invite us to consider the agencies involved in improving relationships with landowners through plug-and-abandon decisions or in designing more sustainable mine plans and infrastructure with ecologists. While these may be critiqued by skeptics as projects of reform rather than revolution, they are important areas of practice that explicitly recognize engineering as a sociotechnical phenomenon and seek to make industry more accountable to its publics.

The engineers profiled in this chapter all positioned themselves as having found at least some peace with the corporate context of their work, pointing to moments or spaces in which they had reconciled—at least partially, and at least some of the time—their sense of self and profession with the corporate person they were called to enact as employees. Given the context of their work at the time of our research interactions, the viewpoints they expressed in interviews and conversations emphasized harmony over conflict. In contrast, my interlocutors who either left or did not pursue

corporate employment opened up more space in our research interactions to critique organizational work. Most had created small, independent consulting firms that allowed them more professional autonomy to choose the companies they worked for and the projects they would accept. Chapter 5 turns to their experiences in detail to explore how they fulfilled their passions for their work in industry while setting bounds on the activities for which they would be held accountable.

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By: Jessica M. Smith

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