

(Re)Constructing the Body:  
An Ethnographic Study of Factory Accidents and Reconstructive Plastic Surgery in  
Coimbatore, Tamil Nadu

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**Abstract**

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This dissertation is an ethnography of factory accidents and the reconstructive plastic surgeries that occur in their wake in Coimbatore, India. In what follows, I trace the workplace accident through various lenses and spaces. Keeping the accident as my primary analytic, I examine the social relations, institutions, and systems of power that produce the accident and become active in its aftermath. I ask, what can a focus on the accident show us about the daily operation of neoliberal capitalism, of social relations including care and debt, of systems of labor and social reproduction? What does it reveal about the body and the construction and reconstruction of the body in relation to ideas about what different bodies do and what they are

for? How do the accident, and attendant ideas about risk and danger, articulate with understandings of gender, class, and ability? The accident disrupts the notion of neatly separable spheres of life, showing the ways in which the factory and the hospital are entangled. How, then, are practices of surgical expertise related to and dependent upon questions of labor, machine work, and care? This is a study of the accident, but it allows us to explore the interstices of medicine, labor, care, and the body.

This dissertation is based on fifteen months of ethnographic research in Coimbatore, primarily at a large plastic and orthopedic surgery hospital, where between one and two hundred patients are seen each month as the result of a workplace accident. There, they are treated for a great variety of injuries that span a range of levels of severity, though most involve the hands and arms. This project takes up both the labor of the surgeons, exploring what kind of work the surgery does as part of a wider continuum of caring practices that are called up as the result of injury, and exploring the connections between workspaces, medical spaces, and medical expertise. Much of this research is also based upon in-depth interviews with individuals injured at work and treated at this hospital. Through these data, I explore notions of risk, work and labor practices, and experiences of trauma, care, and recovery (however incomplete).

At its basis, this project is interested in the interweaving of concepts of work, care, and the body as they are constituted in and through the accident. The chapters, then, revolve around different ways of understanding, narrating, and analyzing the accident. They chart a rough chronology of the accident and the way that it intercedes in and exposes different institutions and practices. My primary argument is that care does not happen in spite of or on the margins of capitalism, but rather that capitalism provokes and depends upon mechanisms of care and caring relations.

The first chapter approaches the relationship between work and the accident. How is our understanding of factory labor illuminated by a focus on the accident? The second chapter is about narratives and habit. How do people narrate their own accidents and recoveries, and how do these narrations articulate with concepts of temporality and habit? I use the Tamil word *palakkam* (habit) as an analytic to understand the slow process of adjusting (or being unable to adjust) to a changed body. The third chapter is about the surgery and the hospital — what does the post-accident surgery do, how does it attempt to reconstruct particular ideas about bodies, especially in terms of what I am calling class, and how do those ideas (and the material way they play out on bodies themselves) change our understanding of form, function, and normativity? The fourth chapter is about care and capitalism. What does it mean to care for someone in the wake of an accident? How do people care for themselves, how do family arrangements shift, and how do these shifts reveal uncertainties in already tenuous conditions? I draw on literature on the social reproduction of labor to think about the ways in which these uncertainties and forms of care articulate, reproduce, and exceed capitalist productivist logics. Finally in the fifth chapter, we turn to the question of responsibility and care, considering the critique of owners and labor policy structures that workers articulated in the wake of accidents.

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And to Wesley and Ivy, for showing me how love is made, every day.

## Introduction

Jisha and I met Ayyappan<sup>1</sup> in the waiting room of Asha Hospital's outpatient department in the spring of 2017. The metal waiting room chairs are bolted to the floor, so Jisha and I turned to face the backs of our chairs in order to speak to Ayyappan and his brother in the row behind. We sipped the small cups of coffee I had bought from the hospital kiosk, while the hubbub of the hospital on a typical weekday morning hummed around us: patients being wheeled down the hall in wheelchairs or on stretchers, children fussing and being comforted by their parents, the low rumble of conversation from other waiting patients, and the periodic raised voice as a nurse called out the next person in line to be seen. Ayyappan and his brother had come by overnight bus from Sivakasi, a town 270 kilometers from Coimbatore, reaching the hospital around 6 am, waiting outside to be let in at 7 and had already seen the doctor by the time we met them around 8:45. The doctor had told Ayyappan he needed another x-ray and then he could say better what

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<sup>1</sup> All names used herein are pseudonyms, including the name of the hospital.

he thought about the prognosis, so Ayyappan was waiting to be called in for the x-ray while we talked.

Three months before, Ayyappan had suffered a serious partial hand amputation while working at a plastic bag manufacturing company in Sivakasi. His left hand had been cut, fairly neatly, more or less in half, with one part, containing his pinky, ring, and middle finger, lifted away along with a chunk of palm from his forefinger and thumb when the machine he was working on depressed unexpectedly. The surgeons at Asha had replanted it, suturing the tendons

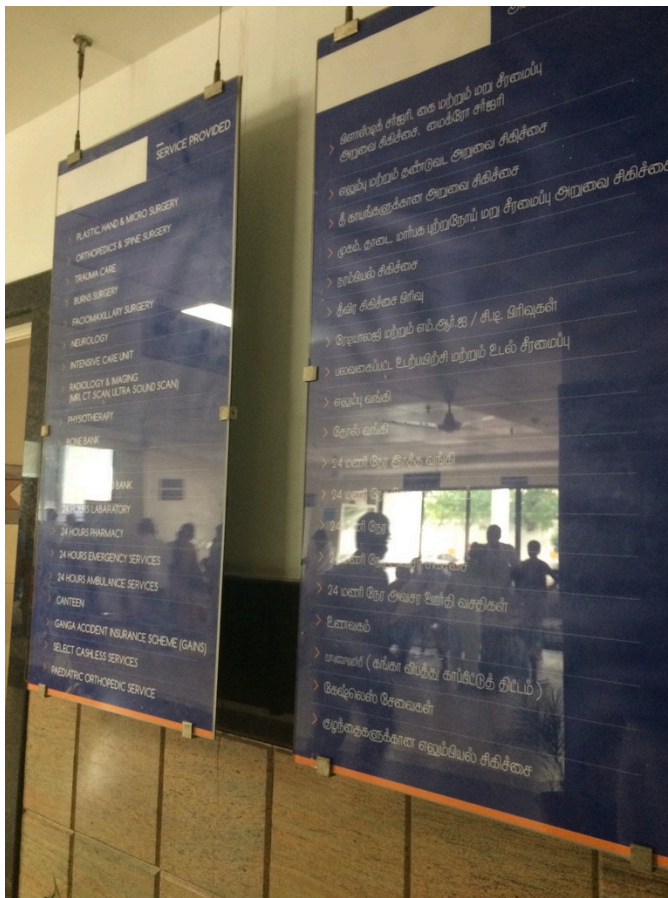


Figure 1: The hospital waiting room

and blood vessels, microsurgically reattaching nerves, and stabilizing the bones with external fixators. His case was interesting enough to merit mention during trauma review, a meeting of the plastic surgery department that takes place two or three times a week, and I first encountered

him there as a “case.” Afterwards, I met him briefly in the recovery ward; we chatted for a few minutes in Tamil and I explained my project, asking if I could follow up with him to see how he was doing and conduct a longer interview. He agreed and Jisha, my research assistant, reached back out to him a couple months later, scheduling an interview to coincide with the return trip he and his brother were planning to make to Asha for his 3-month follow up.

Ayyappan told me that he has worked at a plastic bag making factory since he left school in fifth standard, at the age of eleven. At the time of the injury, twenty years later, he was working with a machine that punches holes in the bags to make handles. His brother chimed in:

Well, in Sivakasi the traditional work is firecrackers, but near our home this company was running. So, because of our family situation, we had to go to work. At first I started working, and later he came too for the work. Because of our family troubles. We have five sisters, and we three boys. During our childhood our sisters and our mother were struggling [to make ends meet]. So we decided to go to work.

These two young boys left school in order to work so that they could take care of their family.

The social reproduction of labor is a cyclical process — as the family and other institutions (education, healthcare, communities) produce the laborer, so too the laborer works in order to reproduce the family. For the people I spoke to, this obligation was most often framed in terms of love and care, yet also articulates with material necessities. Ayyappan said, describing his accident:

“The machine (I was working on) runs continuously. But it only presses when you push the switch, there are buttons on both sides. The wall will only come down if you push both buttons, but on that day the lock was loose so it came down without my pressing the buttons. The covers (bags) come (on a conveyor belt) and stop next to the gate, once we press the switch, the gate opens, the bags go inside, and it punches the hole. When it’s running, the lock stays there, but the punching rotates continuously. But that day the lock wasn’t functioning, it went down without my pressing the switch.”

After the long journey from Sivakasi, to Madurai, and then on to Coimbatore and Asha Hospital, Ayyappan, no longer conscious, was brought directly into the operating theater. The doctor

spoke briefly to his brother and the owner of the company, who had brought them in his car.

“What did the doctors say?” I asked

His brother said, “It will cost two lakhs, they said (200,000 rupees). You’ll have to stay 10 to 15 days, but 90% he will be ok.”

At the time of our meeting, Ayyappan’s hand was very stiff, and he was having difficulty in performing small tasks around the house. He was worrying about the future, about what kinds of possibilities would be left to him and his family if he did not regain function, about how long his wife would remain committed to him if he was too unwell even to pick up and comfort his young daughter when she fussed. We will return to him in Chapter 3; his story highlights many of the themes we will see in the coming pages: the entanglements of care, medical expertise, labor, and risk, the way the injury calls up and reveals multitudes of social relations and obligations, and the attendant questions of failure and uncertainty that loom in the recovery process.

In what follows, I trace the workplace accident through various lenses and spaces. Keeping the accident as my primary analytic, I examine the social relations, institutions, and systems of power that produce the accident and become active in its aftermath. I ask, what can a focus on the accident show us about the daily operation of neoliberal capitalism, of social relations including care and debt, of systems of labor and social reproduction? What does it reveal about the body and the construction and reconstruction of the body in relation to ideas about what different bodies do and what they are for? How do the accident, and attendant ideas about risk and danger, articulate with understandings of gender, class, and ability? The accident disrupts the notion of neatly separable spheres of life, showing the ways in which the factory and the hospital are entangled. How, then, are practices of surgical expertise related to and dependent

upon questions of labor, machine work, and care? This is a study of the accident, but it allows us to explore the interstices of medicine, labor, care, and the body.

## Methods

Autumn in Coimbatore is beautiful and pleasant, the air soft and warm, reminding me more of springtime in my native Wisconsin. It's 7:25 on an October morning in 2015 and I am arriving at Asha Hospital; exchanging a nod of greeting with the guard at the door, I head inside and begin to climb the stairs. It's four long sets of stairs up to the plastic surgery conference room for thrice weekly class, and each week my pregnant body objects more to climbing them. There is an elevator, but it is slow and always crowded, frequently requiring waiting for a second trip, and I am always running too late to wait. It's early in the day and the hospital is just coming to life, but I pass a few patients, nurses, and janitors on the stairs, and am passed by a couple of junior surgeons hustling, too, to get to class on time. I make it to the conference room, slip off my shoes, and head inside to grab a chair. There's a large conference table, but only the senior surgeons (in India called "consultants") sit at it, the junior surgeons (known as "registrars"), and visitors sit in plastic chairs ranged in haphazard rows around the table, facing the projector screen at the front of the room. Dr. Srinivasan, one of the most senior surgeons, begins the second in a two-part talk on anticoagulants. Other doctors continue to peter in five or ten minutes late, trying to unobtrusively make their way through the mess of chairs to an open space. By 7:40 the talk is well underway and there are 32 doctors (not counting myself) in the room, including five women, and three foreign visitors. After the lecture, Dr. Srinivasan reviews the statistics for surgeries in September: 23 head and neck lacerations, 32 head traumas, 11 above knee

amputations, 7 brachialplasties, 30 new cases of diabetic foot, and on and on; he spins through the slides too quickly for me to write them all down. Then, somewhat abruptly, the meeting ends and everyone gathers themselves, stacks the chairs back up, and hurries out to put their shoes on and begin rounds for the day. Rounds will be followed by a short breakfast or coffee break, and then surgery begins. Many of these doctors won't be home tonight until 7 or 8 pm.

This dissertation is based on 15 months of ethnographic research in Coimbatore between 2015 and 2017, as well as pilot work in 2013 and 2014. I followed research methods for ethnographic study in institutional settings laid out by Kaufman (2005), Messinger (2010), and others (cf Solomon 2017; Wool and Messinger 2012). That is, I spent time and conducted observations in the plastic surgery department and its ancillary wings, including the casualty ward and the outpatient department. I accompanied surgeons on rounds, chatted with them in the break room, and observed in waiting rooms, pre- and post-op wards, and the operating theaters themselves. I attended thrice weekly “class” meetings, the rough equivalent of grand rounds in the United States, as well as conferences and hospital events. In addition to countless informal conversations, I also conducted recorded interviews with 15 plastic surgeons on staff and 10 visiting foreign surgeons.

My first visit to Asha Hospital, however, was as an undergraduate in 2007. I was studying abroad in Madurai (a town about five hours away), and it happened that my host brother and host father were both plastic surgeons. My host brother had done a fellowship at Asha and he introduced me to the surgeons there who would become my closest interlocutors. The ease I had in gaining access to the hospital was due in part to this friendly initial connection and in part to my repeated visits to the hospital over a decade. But access was also eased considerably by the sheer volume of foreign surgeons who travel to Asha. My presence was never considered odd or

even remarkable by doctors, nurses, patients, or family members because I was never the sole person or even the sole foreign person observing on a consultation or in the operating theater.

The only remarkable thing about me, it turned out, was my ability to speak Tamil. On rounds, this was occasionally pointed out to patients by the attending surgeon, and I was frequently hailed by patients who heard me speak. While other researchers in hospitals found themselves conducting small and useful tasks, “untangl[ing] IV lines, clos[ing] doors, direct[ing] patients and relatives” (Solomon 2017, 353), I found the most helpful thing I could do in the hospital was to spend time with patients who requested it, relieving some of the boredom and anxiety of a hospital stay, providing diversion and distraction, tasks for which surgeons and nurses had little time. The ethics for this research were governed by IRB clearances both from my home university (the University of Washington) and from the hospital.

Kamala Visweswaran writes, “identities, no matter how strategically deployed, are not always chosen but are in fact constituted by relations of power always historically determined” (Visweswaran 1994, 8). My whiteness gave me privileged access to many spaces, but in uneven ways. In the hospital, for the surgeons who were better educated, wealthier, and older than I was, my race was unremarkable, yet of course it facilitated my first introduction to them as well as my ability to travel to study in the first place. In the hospital more broadly, in part because, again, of the hospital’s existence a hub for foreign visiting surgeons, my whiteness allowed me to pass through the various wards and hallways unquestioned by guards or nurses. When the guard who worked at my apartment building was hit by a car on his way home, I used my familiarity at the hospital (along with my English-speaking and whiteness) to help him get an appointment with an orthopedic surgeon the next day. There is some overlap between the idea of foreignness and that

of whiteness here, but I should say too, that the hospital receives many visitors from East and Southeast Asia, the Gulf countries and Middle East, and Africa as well.

One of the patients I interviewed a few years after his injury told me that he thought he had seen me in the hospital when he was recovering from the surgery. Looking at the dates I told him I hadn't been in Coimbatore at that time but that, after all, the hospital gets a lot of foreign visitors. "Yes," he responded, nodding, "you foreigners all look the same, not like us." Here he indicates the way that my foreignness on the one hand allows me to recede into the background of his experience in the hospital—someone who looked like me may have been there, but their presence was unremarkable. On the other hand, these visitors, myself included, had privileged access to the spaces of the hospital and the injured bodies therein. Although he may not remember the foreign doctor, and almost certainly was not introduced to them, they saw *him*, his wound, his chart, his x-rays, his case was explained to them; they may have watched his operation. My experience in India is enabled by global histories of inequality and violence of which I am the beneficiary, as well as by Anthropology's disciplinary history as imbricated in colonialist and imperialist ventures. "The very possibility of the anthropological journey has been linked to the historical occasion of Western expansion. And this expansion has not only enabled, facilitated and authorized the specific anthropological problematic of difference...but also established its epistemological standpoint" (D. Scott 1989, 77). The experience of the foreign surgeons, the way they accumulate expertise at Asha and bring it back to their own practices, is also enabled by histories of violence and uneven development, yet these complex flows of medical knowledge also serve to bolster and construct the reputation of Asha itself and the sought-after expertise of its surgeons. I return to this topic elsewhere (Shapiro 2020) as well as more briefly in Chapter 3.

Coimbatore is not a common tourist destination and so, outside of the hospital, my whiteness and foreignness were more remarkable. Returning to India over the course of a decade,



*Figure 2: A visit with my host family in Madurai in 2017*

being there first as an exchange student and a young woman traveling with other young people, then working in Orissa on a public health project for 18 months, coming back to South India to study Tamil as a slightly older and now-married woman and finally, returning to Coimbatore pregnant and then with a toddler in tow, my embodied experience of moving in public and private spaces changed radically as I did, and as I inhabited recognizably different social positions.

After a few months of spending time primarily at the hospital and talking with surgeons, I began to shift my focus to patients and former patients at Asha. At first, I planned to meet patients in the hospital itself, in the recovery ward, talk with them briefly and follow up with

them a few months later. This strategy worked to a certain extent, but it soon became clear that I wouldn't be able to meet with enough patients in this way, in the six months or so remaining of my time in India. I reached out to Dr. Srinivasan to ask what he would suggest, and he told me he could facilitate my access to their patient records and get me a list of patients from the previous three or four years. After having a modification to my IRB approved, I went down to the data and HR department in the Asha Hospital basement with a note from Dr. Srinivasan scrawled on a prescription pad. I handed it to one of the data managers, explained briefly what I needed, and left some fifteen minutes later with a flash stick with an excel database filtered for patients who had been admitted with "machine crush injuries," the patients' contact information, diagnosis, and treatment. Realizing that I would never get through the list on my own (my Tamil was proficient but communicating on the phone was a challenge), I reached out to my academic advisor at PSG College of Arts and Sciences to ask if he knew of any students who would be willing to serve as my research assistant. I was connected with Jisha, who would become not only invaluable to the project, but a close friend as well. She went through the list, reached out to patients, and set up about 25 interviews that way; in addition to those I was able to meet at the hospital, we interviewed 32 people in total. She also came on the interviews with me, facilitating the conversation when I got stuck, and we translated and transcribed all the interviews together.

Jisha and I (and often my son Wesley and husband Matt, too) traveled in and around Coimbatore to conduct these interviews, following up with patients in their homes, neighborhoods, and sometimes workplaces, conducting interviews, and forging relationships with them and their families to better understand the aftermath of injury and recovery.

Because my project approaches labor through the accident, it is not restricted to a single industry, factory type or size, or level of regulation. For the purposes of manageability, I

confined this study to work usually called industrial or factory labor (terms I use interchangeably). My interlocutors spanned a range of industries, types of factories, and forms of employment. The people I spoke with, the goods they produce, the machines that they work on traverse blurry distinctions between formal and informal labor, regulated and unregulated factories, and call into question the simplistic equation of informal labor with precarity, exposure, and the thinning out of mechanisms of care. Accidents and injuries are an important aspect of agricultural labor as well, but because I am interested in Coimbatore's reputation as an industrial city, I did not speak with anyone injured while doing agricultural work (although such cases certainly arrive at Asha Hospital). I spoke with only one person who did what would be termed manual labor – she worked as a construction worker, and I return to her story in detail in Chapters 2 and 4. However, because my sample was drawn from a private hospital, and because the most precarious and least well-off individuals would usually seek care at the Government Hospital, I met relatively fewer of them. I confine this study to the city of Coimbatore and its surrounds in order to give the stories I tell structure as well as contextual depth, and to think critically about what it means to consider a place “an industrial city.”

### [The Machine Crush Injury](#)

The “machine crush injury,” as the hospital classifies it, is a “signature injury” (Terry 2009) of industrial labor, although without the fanfare of a combat injury. Jennifer Terry writes about signature injuries as discursively dense, symbolically rich wounds that come, in and of themselves, to signify the war itself and the broader matrices of battle, injury, and care that it called up: amputation and phantom limbs in the US Civil War (Terry 2009, 207), “shell shock” in WW1, Agent Orange-linked cancers and PTSD in the Vietnam War, traumatic limb loss (Messinger 2010) and traumatic brain injury (Zogas 2020) in the US wars in Afghanistan and

Iraq.<sup>2</sup> Terry charts the history of shifts in the “woundscapes” of wartimes and their relationship to both technological changes in weaponry and advances in medical (particularly surgical) techniques. As Talal Asad puts it: “It is as though advances in the surgeon’s healing art, on the one hand, and the production of ever more ingenious ways of wounding and maiming, on the other, were locked in an endless game of mutual provocation, of death and of life, which rich and technically advanced liberal states can play with endless variation” (Asad 2007, 62).

As both of these authors show, it is not that this relationship is intentional, rather medicine and war, two powerful institutions, are closely linked in mutual dependence. Biomedicine not only benefits from but, in fact, requires trauma as the condition of possibility for its practitioners to develop expertise. The woundscapes I elucidate here are not the result of war, but the injuries sustained in factories and on the roads by the patients who arrive at Asha are treated in part using methods developed on the battlefield, and, as with other woundscapes, these traumatic injuries, in turn, bolster and refine surgical techniques. “The wound is a kind of signification that can be read or interpreted to offer narrative accounts of histories of weaponry, of clashes over power, of bodily vulnerability, and of the elaboration of medical practices” (Terry 2009, 206). The signature injury is important because it indexes a range of intertwined systems, bound together in mutual provocation. It lets us see the ways in which violence and care depend upon one another for their conditions of possibility, and, in the cases examined here, absent the heavy cultural and political significance of injuries associated with war, “machine crush injuries” reveal the matrices of machines, labor, care, and medicine that are produced out of current conditions of capitalist production. That is, these are signature injuries of industrial

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<sup>2</sup> “Each modern war has its signature injuries. Signature wounds result from the development of evolving kinds of weapons coupled with the elaboration of military strategy. Signature wounds give rise to innovations in medical knowledge, so in some respects we owe many advances in medical treatment to the bodily suffering wrought by war” (Terry 2009: 206)

labor and yet not recognized as such. Glossed as “accidents,” treated as individual medical concerns rather than the known and anticipated outcomes of conditions of labor, these injuries nonetheless call up and reveal histories of machinery, struggles over worker’s rights and legal questions of culpability, ideas about bodily productivity and disability, and the promotion and development of surgical expertise and techniques.

In an informal way, the surgeons told me narrative histories of industry in Coimbatore *through* the kinds of woundscapes they saw at the hospital. One surgeon told me that they used



Figure 3: Danger

to see more injuries from cotton blowers, “when I first came [to work here], every day we used to have two injuries, three injuries, small young girls putting their hands into these blowing machines and cutting machines, and now that’s become very rare.” He told me that he asked a friend of his in nearby Tiruppur (a cotton and knitwear hub) about this and his friend said, “now

we have gone in for automation. So once we have gone in for automation, there has been lesser incidence of these girls putting their hands into machines to pick up things, and so it has gone down. So actually the last two months or three months I have not seen even one case.”

The broad as well as individual history of human-machine relationships can be read in these injuries. An affective relationship develops over time between the worker and machine, the worker learning to adjust to the movements of the machine and beginning, particularly in this kind of repetitive factory work, to move in and out of the machine habitually, without conscious thought. The accident forms a rupture in this relationship, interrupting the flow of work and, in making sense of it afterwards, many of my interlocutors provided explanations for why it happened at this particular moment. These explanations were commonly related to the worker’s own state of being — perhaps they were tired, distracted — or to a miscommunication with a coworker, or, as in Ayyappan’s case, to something being amiss with the machine itself.

Dr. Mahesh told me that he and some colleagues had prepared an article about the dangers of three-wheeled delivery trucks, because of the frequency with which they tipped over and brought (mostly young, male) drivers in with serious brachial plexus injuries or upper limb amputations. “In fact, I collected [the data], in two years we had 24 such amputations.” However, facing pressure from the dealers of those vehicles, they were prevented from publishing. “So we had to halt the study. So that was, such things happen in India. That’s one thing I’m very, I feel very bad about the country. It’s not that I feel bad, it’s actually a very nice country, but rules and regulations are very scarce. Safety...it’s only for the affluent.”

Notions of as well as policies around risk, danger, and safety are animating aspects of this study, and they crop up in various places, particularly around the discussion about power and bodies. For whom are what kinds of activities seen as especially risky? How does this relate to

other forms of social hierarchy? In the aftermath of an accident, how is risk read and reread as the injury is processed and made sense of? How does this tie into a larger, indeed global, conversation about occupational health, safety, and equity?

## Coimbatore

*Known for its salubrious weather, sweet drinking water, entrepreneurial spirit, docile, law abiding citizens, the Coimbatore district has evolved itself into a centre for manufacturing industries, textiles, healthcare delivery and education.*

- “Coimbatore Day Celebrated,” *The Hindu*. 25 November 2017

*“Coimbatore City revealed in microcosm what industrialization in Tamil Nadu, and most of India, revealed at large: that the advent of modern factory manufacture did not drive out small-scale and petty production, but pushed these activities into the unregulated or informal sector.”*

-Chari 2004, 167

Recorded and archeological history of Coimbatore District goes back thousands of years; for the purposes of considering its establishment as an industrial city, I begin this brief history in 1804, when Coimbatore District was established with the city of Coimbatore as its capital by the British colonial government. In this section, I demonstrate not only that industry had been important to the development of the city both materially and in terms of its reputation, but that nearly all of Coimbatore’s significant institutions, educational, medical, or charitable, are tied to

industrial families. Previously known as the “Manchester of South India,” a reference to its significant textile industry, now it more often goes by the moniker “Pump City.” More than half of all pumps and pump motors sold in India are manufactured in Coimbatore, alongside a still-vibrant textile industry and the manufacture of other heavy engineering works like car parts and engines.

Throughout the 1800s the district was primarily agricultural, and it wasn't until 1888 that the first textile mill was established in Coimbatore, by a British businessman, Sir Robert Stanes, who had already failed at several businesses in the area. However, with the founding of Coimbatore Spinning and Weaving Mills (usually called C.S. & W. Mills, or simply C.S. & W.), Stanes struck upon a winning business venture, and, by the time of his death would grow to be an extremely rich man, the owner of a multitude of concerns, including several mills, plantations, and motor plants, and the first chairman of the Coimbatore City Council. His business was bought in the 1960's by an Indian family, under the agreement that they retain the name Stanes. Coimbatore is littered with Stanes concerns—not only businesses and factories but schools and charities as well.

After the success of C.S. & W. Mills, other businesspeople began establishing textile mills in Coimbatore as well. However, by 1920 there were still only eight mills in the area, most owned by British. The initial capital necessary to set up a mill greatly restricted entry into this industry. The first Indian-owned concern, Kaleeswara Mills, was set up in 1906 (Govindarajulu 2015) by a “Nattukkottai Chettiar with access to substantial banking capital” (Chari 2004, 164). This same year the Tamil Nadu Agricultural University was shifted to Coimbatore, where it remains today, as an increasing focus on new varieties of cotton and other cash crops like sugar cane began to dominate the surrounding rural economy (Chari 2004). Lakshmi Mills (Figure 4),

to this day a leading manufacturer in the city, was established in 1910 by “the great pioneering textile entrepreneur, G. Kuppaswamy Naidu, [who] once visited C.S. & W. Mills as a tourist by paying one anna as tour charge. He was motivated by Sir Robert Stanes to establish his own Lakshmi Mills” (Govindarajulu 2014). Ranga Vilas Mill was established in 1922, Radhakrishna in 1924, Cambodia in 1928, and Vasantha in 1929.

A history of industry in Coimbatore would be incomplete without highlighting the specific role of caste and the way that the formulation and development of industry was tied to particular caste groups. Throughout the first part of the 1900’s, “most of the main entrepreneurs who entered in this business were Naidu people, Telegu-speaking Naidu people,” C.R.



Figure 4: Lakshmi Mills, photo by the author

Elangovan, a local expert in the history and industry of Coimbatore, put it to me. “These were Kamma Naidus, affiliates of an agrarian caste from Andhra who had recently migrated to western Tamil Nadu [and] who would become the leading industrialists and public patrons of the city of Coimbatore” (Chari 2004, 164). In Coimbatore, Kamma Naidus are the dominant caste group alongside Gounders, a Tamil agrarian caste which is prominent particularly in the powerloom industry, and controls many of the mills surrounding Coimbatore and in nearby Tiruppur (Benbabaali 2018; Chari 2004). Kamma Naidu families became powerful patrons of education, the arts, and medicine in the city; many of these institutions to this day are funded by trusts set up by these early industrial families and their descendants.<sup>3</sup>

In the 1930’s Coimbatore solved a problem which had hitherto been a contributing factor to the slow growth and high price of entry to industry: lack of power. In the absence of coal, or other raw minerals, Coimbatore factories were run on steam power or diesel engines, but in the 1930’s the Pykara hydroelectric dam was installed in the nearby Nilgiri Hills, providing a sudden influx of inexpensive, readily available power and, as Chari puts it, “the literal spark to Coimbatore’s textile mill boom in the 1930’s” (Chari 2004, 164). By the end of this decade, in spite of the Depression, nearly 40 mills were operating in Coimbatore. As demand for cotton increased, investment in new types of cotton, as well as in agricultural technology and education rose as well. New varieties of cotton arrived in South India, and, because supply of yarn was now outpacing demand, wages were cut, workers were forced to work longer hours and cover more machines, and the mills began to shift towards running 24 hours a day, as is still common (Chari 2004, 166). Throughout the 1930’s, 40’s, and 50’s, the city’s industries were riven with conflict

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<sup>3</sup> For instance, the G. Kuppuswamy Naidu Memorial Hospital, named for the founder of Lakshmi Mills, is frequently cited as the best hospital in the city. PSG, a group of tertiary education institutions, is founded and run by a Naidu family, as are the KG Group which includes a theater, a hospital, and a school.

between unions and owners, with the government in the position of attempting to intervene while also negotiating the transfer of political power to India as an independent nation. Partly as a response to this volatility, these same founding families, again, mostly Naidus, began to diversify their concerns—investing in transportation and other infrastructure, services industries, retail, education, and land.

Elangovan told me that Coimbatore is a city of entrepreneurs; “it’s in our genes.” This was a sentiment echoed by many people in the city if you took the time to ask them, from drivers to the surgeons at Asha, to the owners of small factories or my favorite cafe, many people identified as entrepreneurs, or at least took pride in the fact that the city was known for that reputation. “Coimbatoreans are not content to *seek* jobs, they want to *give* jobs.” Elangovan and others trace this entrepreneurial spirit through Coimbatore’s history. From the big textile mills of the early 1900’s, skilled employees left to begin their own businesses making textile machinery and spare parts (Chari 2004, 167). Said Elangovan:

Why should we import that textile machinery from other countries, we can start! So the education and funds everything came together and we started the machine manufacturing. For example, one textile spinning machine will have 20,000 parts, so we can easily give job orders to small industries, by that way the small industries developed too. Not only making spares, they then simply switch out to other materials, other manufacturing, and came up. Now most of the engineering materials we manufacture here in Coimbatore.

From textiles, to spares, to machinery and engineering, pumps and motors, and finally to foundries— the next wave of entrepreneurs asked why it was necessary to import all the raw materials and set up a number of steel foundries. Initially they were in the city but eventually, most of the foundries have since relocated to the city’s surrounds. “Foundry, motor manufacturing, pumps, textile mills: this is the basic growth materials for Coimbatore” (Elangovan). As Chari’s quote at the top reveals, far from being opposed to or outstripping the

existence of small-scale or informal markets, the development of large-scale industry in Coimbatore did historically and continues to both rely up and bolster the informal sector.

Ideas about entrepreneurship and industry are also articulated, justified, and extended through the language and practice of caste and caste hierarchy. Far from continuing a problematic discourse of Indian exceptionalism, many scholars have pointed out that caste does not impede the “normal” formation of class (itself a problematic formulation), but rather that capitalism works in and through existing social relations; social systems are in turn reflected in, reinforced by, or trouble organization of labor relations under capitalism.<sup>4</sup>

Pushing back against some sociologists and anthropologists (as well as the Indian state) who continue, following Dumont, to read caste as an ideological system, Uma Chakravarty writes “Caste is not merely the opposition between pure and impure but at a more fundamental level it incorporates other kinds of oppositions such as domination and subordination, exploitation and oppression, based on unequal access to material resources” (Chakravarti 2018, 20). Work and caste have long been taken to be intimately connected. Control over labor continues to be an important feature of and reason for caste oppression (Prasad 2021). There are enduring tendencies in terms of occupations and social rank (Carswell and De Neve 2014; De Neve 2005; Desai 2007; Deshpande 2003; Dickey 2016; Harriss-White 2003). This is particularly true of both high and low prestige jobs. That is, as CJ Fuller and Haripriya Narasimhan (Fuller and Narasimhan 2007) show, Brahmins are overrepresented in high status IT fields, while work that is perceived as “polluting,” particularly sanitation work, or, in textiles, dyeing, continues to overwhelmingly be performed by Dalits (Dickey 2016, 39; Chari 2004, 66).

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<sup>4</sup> As Heidi Hartmann wrote in 1979, “Capitalist development creates the places for a hierarchy of workers, but traditional marxist categories cannot tell us who will fill which places. Gender and racial hierarchies determine who fills the empty places” (Hartmann 1979, 13).

Brahmins make up quite a small percentage (2.5 – 3 percent) of the population in Tamil Nadu; as in other places, they are overrepresented in high prestige fields like IT, finance, and medicine.

Although none of the injured workers I spoke to identified as Brahmin, several of the surgeons at Asha do.

There are powerful, prominent, non-Brahmin caste groups in Tamil Nadu. In his 2004 book, *Fraternal Capital: Peasant-Workers, Self-Made Men, and Globalization in Provincial India*, Sharad Chari explores the knitwear industry in nearby Tiruppur, Tamil Nadu, addressing the central question: “Why and how have certain Gounders of working-class origins come to control knitwear work as they do today?” (Chari, 109). Chari links practices of work, framings of history, and experiences of caste, as he shows how Gounders in the region have risen to prominence since the mid-20th century, and how they continue to frame this success in terms of “toil.” Taking Marx’s “twin processes of accumulation,” (that is, the buildup of both capital and a surplus of labor itself) as a starting point, Chari explores the social relations of production that enable these two types of accumulation (2004, 76, 107-110). Chari claims that Gounder production in and domination of the knitwear industry is shaped by a rhetoric drawing on historical conceptions of Gounders as toilers.<sup>5</sup> Dalel Benbabaali argues that, in part because they were framing their status in comparison with Gounders, “As migrants in Tamil Nadu, the Kamma Naidus claim that they had to struggle and work hard to reach the social position they enjoy today. This might be true for the descendants of small cotton farmers, but most of the big

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<sup>5</sup> By framing their successes in terms of “toil,” Chari argues that the Gounders at once reify this caste characteristic, and at the same time, index the tensions within this success: that not everyone does succeed. In an apparent contradiction, Gounders draw on a remembered agricultural and colonial past, in which their caste was characterized as “hard-working,” to situate their mobility as growing out of a caste-based attribute, while at the same time implicitly questioning the equation of caste with occupation. That is, by a sort of strategic essentialism, Gounders both tied their success to their “nature” as a hard-working caste, and radically changed both the shape of work in the knitwear industry and their caste’s traditional occupational links (Chari, 238-239)

textile industrialists of Coimbatore have an aristocratic ancestry” (2018, 1965).<sup>6</sup> Benbabaali goes on to show that the dominance of Kamma Naidus in industry is in part based upon a mobilization of caste dominance to exploit workers, particularly through strategically employing Dalit women on short-term contracts to break up union activism (2018, 1965). As Grace Carswell shows in regard to nearby Tiruppur, capitalism, and the changing nature of markets, do not do away with social divisions, but rather reformulate them (Carswell 2013).<sup>7</sup>

Today, most scholars agree that caste and class are “in dynamic interaction” (Hancock 1999, 46; Fuller and Narasimhan 2014; Upadhyaya 2011). The two overlap, although the extent to which they do so may vary greatly and is the subject of debate. In many ways and many places, caste is increasingly overwritten by class.<sup>8</sup> Yet even wealthy people of low caste feel pressure to either conceal their caste in mixed company, compensate for it by performing particular aesthetics of high class — a style of dress, an English education, luxury cars and housing, etc — and/or continue to avoid certain caste-based taboos (like serving food or drink to members of high castes) (Dickey 2016). Other scholars read changing patterns of consumption and labor as

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<sup>6</sup> Anand Pandian likewise engages with the relationship between the idea and practice of toil, and the ways in which it articulates with formulations of both caste and ethical self-making. However, working in a rural area with Kallars, a caste historically discriminated against as “criminal,” Pandian finds tension in the rhetoric of toil as a good: “Rural Tamil men and women today identify *uḷaippu* (toil) as a means of advancing oneself through diligence, bodily exertion, and honest struggle. The term is still invested, nonetheless, with a sense of suffering meant only to be escaped” (Pandian 2009, 163). That is, toil, for the people Pandian works with, is a necessity, not necessarily a means for advancement.

<sup>7</sup> She argues that labor markets are highly localized, and the way that labor market segmentation occurs (who is or is not allowed into certain segments of the labor market) depends upon social restrictions, political structures, and local histories. That is to say, caste-linked experiences may vary between members of the same caste in neighboring villages depending on very particular local conditions, including histories of education and mobilization, social networks, and spatial distribution (including the availability of public transport, which, as in Carswell’s study, has been forestalled by Gounder powerloom owners in some areas seeking to retain control over “their” workforce) (Carswell 2013).

<sup>8</sup> For instance in Sara Dickey’s study (2016), only one of the 50 people she spoke to said caste was more important than class in determining social rank and life chances. And, as one of her interlocutors quipped, “a rich man’s joke is always funny” (2016, 41).

resistance to and reformulation of traditional caste hierarchies (Gidwani and Sivaramakrishnan 2003; Gidwani and Ramamurthy 2018; Ramamurthy 2011).

Furthermore, perceptions about caste-based characteristics are increasingly being transferred in order to justify class-based stratification. “Upper-caste stereotypes of the lower castes as dirty, uncontrolled, and irrational are now applied by middle- and upper-class people of all castes to the poor...caste prejudices, stereotypes, and attitudes have become widely euphemized (or rationalized) and adopted as class ones” (Dickey 2016, 40). Jonathan Parry shows that this dynamic is gendered as well, as we saw too in the example above about the exploitation of Dalit female workers to undermine the development of unions in Coimbatore’s industry (Parry 2014). Parry uses the example of sexual harassment on construction sites in Bhilai to consider the way that class is constituted in and through these events and discussion about them. That is, poor women are seen as more sexually available, and their perceived promiscuity is an important part of justifying their continued precarity. Thomas Cowan writes about the ways in which, in the textile export industry of Gurgaon, migrant women are caught between the necessity to engage in wage labor and the social pressure to perform a particular kind of domestic, feminine reproductive labor; this conflict is expressed in terms of gendered violence and negotiated through discourses of respectability (which are more or less available to some women than others depending on caste, religious, and class positions) (Cowan 2021). Uma Chakravarti, Indulata Prasad, and Anupama Rao, along with others have written about the ways in which gendered violence is a form of enforcing caste oppression (Chakravarti 2018; Prasad 2021; Rao 2009).

In Tiruppur, Chari charts a changing “gendered hegemony,” particularly given the context of the increasing feminization of labor. The potential tensions of the increasing

feminization of labor are mediated, in Tiruppur, by several impositions: first, the exclusion of women from unions; second, the division of work into skilled versus un/semi-skilled labor, and the gendering of these divisions by which women are assigned labor seen as un/semi-skilled so as not to compete with “men’s work;” and third, the simple fact that women are paid less (Chari, 240). Similar gendered dynamics are found in the handloom and powerloom industries by Geert de Neve who shows that women are preferred as workers by owners because they are seen as more responsible, more docile, and less likely or able to organize against owners (in part because of their exclusion from formal unions) (De Neve 2005).

### The Hospital

Asha Hospital Asha Hospital perches behind an old vegetable market on one of Coimbatore’s main thoroughfares. Automobiles and buses stop to deliver goods and people to both the market and the hospital—cars, auto rickshaws, pedestrians, and the occasional ambulance making the tight turn into the hospital’s long driveway in the midst of the market bustle. The orange and white hospital looms behind the market. Six stories high and, although it had just 450 when I was there in 2017, after an expansion in 2020 it now comprises 650 beds, Asha boasts several impressive superlatives: India’s largest plastic and orthopedic specialty care hospital, largest hand and microsurgery center, and largest spinal surgery center. More than 100 surgeries are performed here every day by the team of 125 surgeons, most of whom are plastic or orthopedic surgeons. Within the fields of plastics and orthopedics, many sub-specialize, for instance in maxillofacial surgery or wound care.

Of the roughly 25,000 surgeries performed every year at Asha Hospital, 80-85 percent are post-traumatic; the remaining cases largely address congenital conditions, especially cleft lip

and palate, or chronic disease-linked conditions, like diabetic amputations. A tiny percentage are elective. Of the surgeries that are post-traumatic, 75 percent of these occur as the result of a road traffic accident (RTA), 10-12% are the result of workplace accidents, and the remaining are a combination of home accidents, self-inflicted trauma (especially burns), and assault. Because Asha Hospital does mostly post-traumatic surgeries, the kind of injuries seen here most are crush injuries and amputations, and the surgeons at Asha are known throughout South India, and indeed the world, for three areas of expertise in particular: hand surgery, microsurgery (surgery that takes place through a microscope), and the reattachment of amputated limbs and digits.

Alongside its reputation as an industrial and entrepreneurial place, Coimbatore is also known as a hub of medical expertise. In fact, the surgeons and administrators at Asha, and particularly Dr. Subramaniam, the head of Plastic Surgery, have cultivated, purposefully and tirelessly, the reputation of Asha as a leading institution for both learning and technique. The plastic surgery department was founded in 1991 and has long had an explicit goal to become a leading institution, something they have achieved at least in part because of their ability to access this large volume of trauma cases. The hospital's reputation, in turn, draws both road traffic accidents and industrial accidents from a wide swath of South India. This reputation brings not only trauma, but, as noted, also foreign surgeons through the doors. A banner on the hospital website reads, "when many are proud saying that they treat overseas patients, [we are] . . . proud in having received . . . more than 1557 Surgeons and Trainees from 63 countries." In these quotes, and their pride in and active cultivation of this reputation, the surgeons at Asha push back against common conceptions about the directions in which medical knowledge and services flow. Although some Indian hospitals have used their combination of low-cost, high expertise to

attract foreign patients for medical tourism, Asha has converted its supply of trauma patients into surgical expertise that brings other surgeons there to learn.

This reputation is linked in numerous ways to the local conditions. As we've seen, it is dependent on the city's (and surrounding areas) production of injured bodies; yet the hospital's reputation is also a source of local and regional pride. The surgeons, and especially the head of the Plastic Surgery Department, Dr. Subramaniam, identify with the entrepreneurial spirit of the city. Showing me the annual report, he said, "Coimbatore is a world-class city, you can get anything you want here. See?" he said, pointing to the high quality of the report's embossed printing, "this was made just down the road." On Founder's Day, a celebration the hospital holds every year to fete the hospital's founder and his wife, a prominent person is invited to give a speech; one year it was a VP from Tata (one of the largest multi-sectorial conglomerates in India, and indeed, the world), another a former election commissioner. These well-known figures signify the importance of Asha by accepting the invitation. While the orators hail from all around India, a prominent local businessperson (e.g., the owner of a famous chain of sweet shops or the president of the Coimbatore Chamber of Commerce and Industry) is always invited to preside over the event and receive a small award. Note also that the hospital's founder is Dr. Subramaniam's father; his brother is head of the Orthopedic Surgery Department, so there is also a real sense that the hospital, although it is world-class, is also a family business, with all the attendant sentiments of pride and hard work.

In the Outpatient Department break room one day in the fall, Dr. Srinivasan compared the relationship between Coimbatore, Asha Hospital, and injuries to that of Switzerland and Tuberculosis in the early 20<sup>th</sup> century. He had just returned from holiday in Switzerland and told us that the country is so wealthy, in part, because of its role as a center for sanitariums for

wealthy tubercular patients from elsewhere in Europe. Similarly, he said, Coimbatore gets money and development from patients and their families who come here for treatment.

The city is therefore ever-present in the hospital, as a necessary precondition and a source of pride, and is simultaneously transformed. By taking pride in this volume, by acknowledging it as the source of the expertise, and aligning the hospital with other historical and contemporary Coimbatore visionaries, the capacity of this volume of trauma to provoke a critique is foreclosed on. This is not to say that the surgeons do not understand or acknowledge these broader conditions, but their relationship to the hospital's high volume is complex and ambivalent. In moments of rest and reflection, the surgeons do dwell on questions of causality. One day during trauma review, a registrar presented the case of a woman whose hand had been shredded by her sugarcane juicer as her hand got caught between the two metal rollers of the press. After the case had been presented, Dr. Srinivasan, a senior consultant, sighed and said: "In Bombay, they went around and just put a simple metal guard in front of all the sugarcane rollers. A 100-rupee (USD 1.5) piece of metal would have prevented this."

This dissertation brings an anthropological investigation of plastic surgery into conversation with the emergent anthropology of trauma, in which, unlike in the extensive anthropological literature on trauma as an ongoing, chronic, social and psychological reaction to situations of violence or deprivation (Das 2000; Fassin and Rechtman 2009; Kleinman 2000), trauma indexes its medical or surgical meaning: "an injury (such as a wound) to living tissue caused by an extrinsic agent" (Merriam-Webster 2020). I join others (Solomon 2017; L. Jain 2006; Manderson 2011; Messinger 2010; Wool 2015) in considering the stakes and experiences of physical injury, here approaching through the lens of reconstructive plastic surgery. Plastic surgery might seem an incongruous site for examining injury, because of the prominence in our

imagination of plastic surgery as a luxury good, focused on altering the body for cosmetic purposes. However, a plastic surgeon has and always has had a very important place in emergency medicine, and not only because her suturing will result in a less prominent scar. In much of the world, including the hospital where I did much of my fieldwork, the primary work of plastic surgery is post-traumatic. As I was frequently told, plastic surgeons cover the entire body, all layers of the skin, tendons, and nerves. They are therefore crucial for trauma surgery and the trauma hospital where I carried out my research was staffed almost entirely by plastic and orthopedic surgeons (there were also a couple of general surgeons and neurosurgeons, and many who sub-specialize within plastic surgery, for instance maxillofacial surgeons).

By considering reconstructive plastic surgeries that take place as the result of factory accidents, I shift focus from plastic surgery as luxury item to a necessity, drawing our attention to the specific contexts in which particular kinds of bodies are made, unmade, and remade, and placing familiar questions in medical anthropology, about the body, power, and care, within the distinctive light of labor and production. I argue here that the relationship between plastic surgery and labor both exposes and recreates deeply embodied notions of productivity, and these notions are negotiated, questioned, and reinforced through relations of power, and everyday acts of violence and care.

### Temporality

Time in various forms appeared over and over in my conversations with interlocutors, whether in terms of the rhythm of the machines, the hours of the working day, or the way time seems to stop in the immediate wake of an accident. The doctors spoke of ischemia time, of the importance of quickly restoring the interruption of blood flow caused by trauma. Everyone spoke of recovery

time, of bodily and familial adjustments to make space and time for the injury, for the body to heal. These various notions and deployments of time surface repeatedly throughout the dissertation, yet without a clear linearity. I search for a unifying theme or connection between them, but I also allow them to bubble up when they do, rather as they did during my fieldwork. Time and temporality are not necessarily animating aspects of my argument in this dissertation, but they float around the periphery in interesting ways, and I draw your attention to these various and sometimes competing notions of temporality here to encourage you to keep an eye out for them in what follows. Time is not something we are always conscious of, we learn from such a young age to feel the flow of time, to measure the passage of time in our bodies, as well as by the clock, and by natural rhythms and timed events. I try to approach temporality not only through the ways in which our experiences of time are embodied, but also by exploring the ways in which our notions of time and temporality imply and privilege certain kinds of bodies.

The stories of time in the chapters that follow, the way the accident is narrated through its coincidence with other timed events shows the always overlapping nature of different kinds of time that are meant to be kept separate. Capitalism demands the illusion of a separation between work time and leisure time (even as new forms of capitalism erode that separation, attempting to convert all time into productive time), the constructions of capitalism — the working day, punching a clock, the 24-hour factory — make time appear as though it exists in segmented units: a minute, an hour, a day. The accident disrupts this illusion of neatly segmented time and inaugurates a different kind of time — one that may still be measured in hours and days (hours of ischemia time, days in the hospital, months of recovery) but reveals alongside the organic overlaps of the flow of time and the way it is experienced in the body.<sup>9</sup>

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<sup>9</sup> “Yet in spite of opening up a diversity of timescapes to analysis in these ways, there is still a lacuna in our understanding of how such timescapes intersect in practice. In particular, we have yet to trace how the polychronies

The stories people tell about accidents, like the accidents themselves, do not exist at a single moment in time, but rather they and their effects reverberate outwards into a future, and echo back into a (now-imagined) pre-accident past. The stories change, shift, and are made sense of in new ways as their tellers and their recollections shift in turn. The accident represents a rupture, though it is not wholly unanticipated, and telling the story is part of making sense of that rupture, of folding it back into a temporal scheme that is understandable and expressible.<sup>10</sup>

### Study Questions and Chapter Outline

In seeking to understand how care, violence, the body, work, and love all intersect in the post-workplace accident reconstructive plastic surgery and attendant processes of recovery, I examine the messy, incomplete practices that suture a rupture in the everyday experience of factory labor. I explore the tremendous amount of work and resources it takes to produce this “system,” as well as the way this production is enabled by and simultaneously re-produces inequalities.<sup>11</sup> My

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of finance capital, technological instruments, predictive devices, representations of time, social disciplines, non-human resources, and social reproduction are mediated within workplaces and communities. This gap is problematic because without an analysis of the contradictions and negotiations of these polychronies we cannot explore two key elements of contemporary economic life: the increasing uncertainty of the process of capital accumulation; and the centrality of the rhythms of credit and deficit to productivity (Bear 2014; Graeber 2012; Roitman 2003). In addition, attention to these issues should ultimately undermine any idea that speed or time economy—the grossest simplification of efficiency’s logics—is at the heart of capitalism. Instead, we will be able to explore the heterogeneous forms of pacing, duration, waiting, pause, obsolescence, and delay that also characterize its generative rhythms” (Bear et al. 2015).

<sup>10</sup> Citing Lacan, Slavoj Žižek writes, “the answer to the question ‘Why do we tell stories?’ is that *narrative as such* emerges in order to resolve some fundamental antagonism by rearranging its terms into a temporal succession” (Žižek 1997, 10–11)

<sup>11</sup> “The gens approach, then, is a concerted strategy to reveal the constructedness—the messiness and hard work involved in making, translating, suturing, converting, and linking diverse capitalist projects—that enable capitalism to appear totalizing and coherent. Representations of capitalism that do not underscore these labors run the risk of conflating the interests and the actions of capital, thus inadvertently and teleologically reproducing the invisible hand. Furthermore, our questions about instability and generativity return us to the contingent production of inequality and structural violence. To notice heterogeneity is not to deny the depth or breadth of these injuries, but to explain and thereby, ultimately, to challenge them” (Bear et al 2015).

project seeks move not only “beyond the singular narrative of the ‘retreat of the state,’ ” (Münster and Strümpell 2014: 8) but also beyond the narrative in which care itself is evacuated or made impossible given conditions of neoliberal capitalism.<sup>12</sup> I ask, rather, how is care made and remade given existing relations and structures of power? How do these structures of power operate in and through relations of care, and how might they be remade in this process? I join other scholars (Brenner 2010, Carswell and De Neve 2014, many others) in focusing both on ethnographic detail, and on process — how do things come to be as they are? How are they made and remade, in this case, in the wake of a rupture in the usual texture of the everyday? By and for whom?

I am influenced by Bear, Ho, Tsing, and Yanagisako’s (2015) call for a “gens” approach to the study of capitalism. They employ the term gens to indicate the generative processes that produce capitalism, social relations, and inequalities, all already entangled. They draw on feminist approaches to the study of labor that problematize a simplistic understanding of productive labor or the economic realm as exceptional or separable from social relations, familial care, historical processes, and hierarchies of race, gender, and ability. “Instead of taking capitalism a priori, as an already determining structure, logic, and trajectory, we ask how its social relations are generated out of divergent life projects” (Bear et al 2015).

The caring practices represented below are themselves part of the process of generating capitalism and making it cohere (or appear to cohere) into a system. In many ways they are

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<sup>12</sup> Neoliberalism is both exceptional (Ong 2007) and unexceptional (Cross 2010, De Neve 2005, Neveling 2014). Many neoliberal policies predate what we commonly think of as the “birth” of Neoliberalism (capital N), and certainly predate the 1991 liberalization of India’s economy, often portrayed as a watershed moment. Furthermore, as Cross (2010) shows, supposedly “exceptional” spaces of neoliberalism such as Special Economic Zones (SEZ’s) in fact often simply formalize and make legal labor relations and economic practices that are widespread outside of these zones as well. As Münster and Strümpell write, “[C]apitalist hegemony should not be taken as an analytic starting point for studying everyday life, but rather as something to be demonstrated ethnographically” (2014: 8).

evidence of the cost of the social reproduction of labor and the way, in this case, aspects of that are deferred to the laborer themselves, their families and communities. They are also evidence of the ways in which the necessity to cover the cost of these surgeries articulates with both social norms and legal structures. Finally, they also show the way the medical system harnesses this trauma in the service and extension of their own knowledge and reputation. My critical investigation of these events and their aftermath attempts to hold these various contradictions together: that, workshops and factories produce severed fingers in the same way they produce spare machine parts, that social, medical, and familial practices of and obligations to care are used by capital to defer its responsibility for the social reproduction of labor, that surgeons and medical expertise benefit materially from this volume of industrial trauma and yet, that through these processes workers also produce the best surgeons to operate on their bodies and, in turn, benefit from this care.

Throughout this dissertation I track the forms that care takes, the ways in which it is mobilized through capitalist notions and imperatives, particularly those around productivity and able-bodied-ness, and the ways that it continually exceeds the realms and reach of capitalism and produces, also, social bonds and relationships, love and intimacy. Although I discuss the hopes and ideas my interlocutors held out for the future, the ways in which they adjusted to their changed bodies, the solace and pride the surgeons found in providing an usual degree of access to care for members of the working class, I also, like Elizabeth Povinelli, want to avoid telling a redemptive tale. This is neither a story about the totalizing power of capital to take over bodies and lives, nor is it a story of the resilience and hope of people forced to live under conditions of historical and ongoing inequity and exploitation, yet it is also sometimes both. As Povinelli writes:

I do not think these practices are redemptive, for at least two reasons. First, the options presented to those persons who choose, or must, live at the end of liberalism's tolerance and capitalism's trickle, are often not great options. To pretend they are is to ignore the actual harms that liberal forms of social tolerance and capital forms of life- and wealth-extraction produce. Second, to wish for a redemptive narrative, to seek it, is to wish that social experiments fulfill rather than upset given conditions, that they emerge in a form that given conditions recognize as good, and that they comply to a hegemony of love rather than truly challenge its hold over social life. It is to wish for a redemptive narrative authored by those who suffer most viciously from the hegemony of this form of intimacy. Instead of redemption's break from social life, I track the immanent dependencies that emerge in actual life (Povinelli 2006, 25).

At its basis, this project is interested in the interweaving of concepts of work, care, and the body as they are constituted in and through the accident. The chapters, then, revolve around different ways of understanding, narrating, and analyzing the accident. They chart a rough chronology of the accident and the way that it intercedes in and exposes different institutions and practices.

The first chapter approaches the relationship between work and the accident. How is our understanding of factory labor illuminated by a focus on the accident? The second chapter is about narratives and habit. How do people narrate their own accidents and recoveries, and how do these narrations articulate with concepts of temporality and habit? I use the Tamil word *palakkam* (habit) as an analytic to understand the slow process of adjusting (or being unable to adjust) to a changed body. The third chapter is about the surgery and the hospital — what does the post-accident surgery do, how does it attempt to reconstruct particular ideas about bodies, especially in terms of what I am calling class, and how do those ideas (and the material way they play out on bodies themselves) change our understanding of form, function, and normativity? The fourth chapter is about care and capitalism. What does it mean to care for someone in the wake of an accident? How do people care for themselves, how do family arrangements shift, and how do these shifts reveal uncertainties in already tenuous conditions? I draw on literature on the

social reproduction of labor to think about the ways in which these uncertainties and forms of care articulate, reproduce, and exceed capitalist productivist logics. Finally in the fifth chapter, we turn to the question of responsibility and care, considering the critique of owners and labor policy structures that workers articulated in the wake of accidents.

## Chapter One

### “Are these machines dangerous?”: Factory Accidents, Risk, and Labor

#### Introduction

Kannan’s small workshop was located at the end of a lane on the north side of Coimbatore. Jisha’s typically detailed notes had allowed us to direct the Uber driver there, only having to turn around a couple of times. Kannan came out to the road to meet us and showed us into the workshop, an unassuming 300-square-foot corrugated steel structure. It was dusty and a faint smell of metal and oil hung in the air. The floor was concrete, somewhat cracked and pitted, and shelves hung on the walls held everything from Kannan’s two-wheeler helmet to framed and garlanded pictures of Shiva, Parvati, Ganesh, and his parents, an old speaker, and the ubiquitous Amma fan. Kannan sat down on a stool near the baby blue mechanical press that had taken half of his left middle finger to tell us about his work, how he came to own his own workshop, how his accident had happened early one morning, his first day back to work after his eldest daughter’s wedding. “I had come in to work,” he said, “but my mind was still outside.” He was working with a coworker (a cousin) on a mechanical press that requires two people to operate, turning a large wheel in order to depress the die. Tired and distracted from the weekend’s festivities, he and his coworker miscommunicated and the cousin turned the wheel before Kannan’s hand was clear, amputating his left middle finger to the second joint, and part of the nailbed of the pointer finger. “Are these machines dangerous?” I asked him. “*Absolutely*,” he

said, *kantippa* lingering on the “*n*” in a very typical Tamil emphasis. “All machines are dangerous, it’s *our* responsibility to concentrate.”

My claim that accidents form a constitutive part of industrial labor is more than theoretical. An estimated 2.78 million people worldwide lose their lives to occupational injuries and illnesses annually (ILO, 2018). The bulk of these deaths are the result of illnesses; yet my focus is not on fatalities, which are vastly outnumbered by non-fatal incidents. Every year, more than 260 million accidents occur globally that cause the injured worker to lose at least three days of work (ILO, 2018). Occupational injuries are the 20th leading contributor to the global burden of disease, but rise to the 12th in South Asia (IHME, 2016). The risk and experience of accidents are a common part of the daily texture of manual and industrial labor for much of the world’s population. Catastrophic accidents in the South Asian textile industry have garnered a great deal of warranted social, political, and academic attention. Yet the majority of workplace injuries are not such unusual events, but rather a common aspect of industrial labor for many workers, though they may of course nonetheless be catastrophic to the individual and their social circle. Much research into occupational illness and injury has attempted to quantify and map the prevalence of such incidents; however, these numbers in India are considered unreliable, and are likely an underestimate. This is due to a number of factors, including that the etiology, especially for illness, can frequently be very opaque, and also that processes of monitoring and reporting in India are uneven and unreliable. As one article phrased a summary of International Labor Organization (ILO) reports, “Though these figures are alarming, they might be a conservative estimate as the ILO does not receive complete and reliable data from India. For example, in 2003, India reported 179 fatal accidents, while the ILO put the estimate at 47,000” (Pandita 2009)

India has relatively progressive labor laws; yet they are unevenly enforced. As Barbara Harriss-White writes, “The labour laws tend not to be enforced by unions but by the State Factories Acts inspectors with huge territories to cover and few resources with which to enforce the law [and who] are more often than not found to be implicated with bosses in a nexus of corruption around the evasion of labour protection laws and the erosion of labour rights” (Harriss-White 2003, 35). The inspectors, for their part, are often overwhelmed by the number of factories they are responsible for. In 2017, the latest year for which I could find government statistics, there were only 726 sanctioned, working factory inspectors in the entire country, including 101 in Tamil Nadu ((Directorate General Factory Advice Service and Labour Institutes 2018, 48). In the same year, Tamil Nadu officially reported 71 fatal injuries, 81 dangerous occurrences (sometimes called “near misses”) and 192 nonfatal factory accidents (Directorate General Factory Advice Service and Labour Institutes 2018, 71). However, in an average month at Asha Hospital alone, between 150 and 200 patients come in with workplace injuries.

One explanation for these vastly underreported statistics is quite simple, and tied to India’s labor laws. As one report summarized: “The Director General of the Factory Advisory Services and Labour Institutes [a Government of India board] reported 1,509 fatal and 33,093 non-fatal injuries in 2009, using records from registered factories which employed about 5% of total workforce” (Pingle 2012, 168). In other words, informal labor is neither covered by India’s labor laws nor are accidents in the informal economy kept track of or counted. As much as the formal and informal economies can be said to work in tandem, or even to constitute one another and overlap to a large degree, they are governed by very different laws and regulations. And, as Barbara Hariss-White argues, it is not only that informal workers are not covered by existing labor laws, but that the way the legal apparatus around work is set up in fact encourages capital

to *informalize* labor (Harriss-White 2003, 20). A Government of India report put it quite bluntly:

“Occupational Health and Safety cover for the unorganized sector can well be said as non-existent.” The report continues:

“Unfortunately, the Factories Act, 1948 or the Mines Act, 1952 does not cover this vast majority of workers because they work in the informal sector where accidents are not reported at all. Therefore, for such a very large work force in the country not much of statistics or studies are available for formulating coherent policies or action plan to cover these segments of economic activity in the informal sector” (Government of India Ministry of Labour and Employment 2011, 132).

In this video (click to play), Kannan demonstrates the operation of one of his two machines. This is a foot-pedal operated hydraulic 3-ton press, which he purchased after this accident, thinking it would be safer. Here he is fabricating the steel collar for an o-ring. O-rings



are usually made of rubber and are an extremely common engineering solution to create a seal between two parts of a machine. They are found in everything from faucets to hydraulic cylinders to oxygen tanks and pump shafts. Your plumbing is full of them, your car is full of them. They come in a variety of dimensions and, in Coimbatore, collars like these are by and large made in small workshops with the use of a manual or hydraulic press machine just like this. Larger factories purchase small parts like these from small, informal workshops like Kannan’s, and they are also sold as spare parts for use in secondhand markets.

This chapter is about the experience of factory work in Coimbatore. Unlike earlier research on the experience of labor, I approach this topic through the lens of the workplace accident. While the body and the hand have long been seen as critical tools for labor, and as impacted by the nature of work, most research in labor studies as well as occupational health, though it may cite the incidence of accidents as a contextualizing device, does not approach them as constitutive of the experience of labor itself. I argue that the accident is precisely that: not merely incidental to but a formative part of labor, and therefore an important analytic for thinking about the embodied, everyday experience of factory work. Shifting focus from notions of the accident as spectacle, as exceptional, or even, really, as “accidental,” I consider the accident as built into the system of work: it is invented, expected, and then made sense of within a particular logic that both anticipates and defers bodily risk and danger. When Kannan says, “of course all machines are dangerous,” he indicates the way that, far from being unexpected, the accident is understood as an imminent bodily risk, even an inevitability, that is largely the responsibility of the worker to guard against. Risk is managed and understood differently across a range of different bodies and social relations – coworkers, machines, owners. The accident mediates labor relations between all of these people and objects, both before it happens and in its aftermath, and so an investigation of the accident allows us to see the various relationships that make up a workspace as well as, crucially, the way that the workspace exceeds its boundaries and spills over into other kinds of spaces – private spaces, medical spaces. Ways of managing the accident and conceptualizing risk and recovery are inflected by and reproduce gender, caste, and class dynamics as well.

In this chapter, I explore what the lens of the accident reveals about labor and risk, and how that is mediated by existing social relations and hierarchies. The chapter begins with a brief

overview of informal and formal labor in India, as well as by situating my project contextually in the broader scholarly literature on labor studies in India. I then use accident theory to explore the machines themselves and the relationship between worker and machine, excavating further Kannan's assertion that "all machines are dangerous." What does it mean to work with and in dangerous machines? How might we consider the various forms of bodily risk that inhere in different kinds of labor? As mentioned in the introduction, time and temporality interwove through many of the accident stories I was told; in this chapter, time emerges as part of the way that that occurrence of the accident is made sense of, through its relationship to other timed events. I put these ideas of the importance of time into dialogue with earlier labor studies research on the relationship between time and work. The chapter concludes by examining tinkering, and the way it intercedes in systems of risky labor.



*Figure 5: A few hours' work*

### Labor in India

In some ways Padmini is exceptional compared to many of my other interlocutors; she is relatively more educated, speaks English with near fluency, and worked for many years as a Hindi teacher. However, her workshop, working conditions, and the story of her accident are all very representative of the experience of others. She lives in a neighborhood of small, winding streets in Coimbatore's northwest quadrant; in early 2014 she left her job as a Hindi teacher and she and her husband decided to open a small workshop in the building adjacent to their home. They began with just a few mechanical presses, but, by 2017 when I interviewed her, had acquired ten mechanical presses and four hydraulic presses.



*Figure 6: Padmini's workshop*

Although her husband helped finance and advise upon the venture, he works as a tooler at a machine shop nearby and Padmini manages the workshop and her 15 employees on her own

(13 women and two men). They have two children, who attend a private elementary school nearby, and live in a joint household with Padmini's husband's parents, his two brothers, and their families. In October 2014, shortly after they opened the workshop, Padmini's pointer finger was caught in one of the machines when she pressed the foot pedal before her hand was fully clear, and the tip was amputated. She was treated at Asha, but they were unable to perform a reattachment, and instead grafted a piece of skin from her arm to cover the wound. When Jisha called to ask if we could come conduct an interview about her accident, she said that, besides her, two of the women who work for her had also suffered similar injuries in the last three years, and would we like to speak to all of them? We agreed, and went to meet them one Wednesday afternoon.

Padmini's neighborhood is comprised of a series of narrow roads, with drainage ditches on either side, and homes and businesses running alongside. The landmarks Padmini used to direct us to her home included a small tailor shop, a medium-sized factory that makes spare parts for Texmo, and a State Bank of India. This mix of enterprises, some small-scale, some large, some formal, some not, is fairly typical of many neighborhoods in Coimbatore, supporting evidence which has shown that the line between the formal and informal economies is actually very fluid, and certainly the "two economies" are inextricably linked.

Depending on which estimate you use, between 83 and 93 percent of India's workers are employed primarily in the informal economy; that is, they work for enterprises or people whose economic activity is not registered with or by the state (Harriss-White 2003, 4–6; Agarwala 2013, 1). The informal sector accounts for as much as 60 percent of GDP, of which agriculture is the largest component, followed, somewhat distantly, by textiles (Harriss-White 2003, 19; Kulshreshtha and Singh 1999). Many scholars (Holmström 1984; Harriss-White 2003; Agarwala

2013; Parry 2014; Ramamurthy 2013) have worked to undo or undermine the divide between these “two economies,” and they are now generally considered to be not only inextricably connected in mutual dependence but the lines between them often fluid or difficult to pin down. Registered factories purchase tools, raw goods, and semi-finished products from informal factories. And of course those employed in the formal economy depend upon those in the informal economy for many of the goods and services they buy. However, the distinction between formal and informal labor has important policy implications because, with the exception of a few industries (construction, bidi-rolling), most federal labor laws and regulations apply only to formally registered and incorporated factories (about which more below). Moreover, even single factories frequently employ some workers formally, and some on “contract-basis,” which means that, in a formally registered factory, laws and regulations (including those regarding disability compensation, wages, and working hours) apply to only some (and, increasingly, fewer and fewer) workers.

Padmini’s workshop is illustrative of both the difficulty in distinguishing firmly formal from informal enterprises, as well as the deeply social nature of economic ventures (Schuster 2015). In her workshop, she receives long spools of flattened steel, which, with the help of the presses, are turned into o-ring collars (Figure 7) to be used in spare motors for pumps. She primarily sells these collars to the medium-sized factory down the road which makes spare aftermarket motors for Texmo pumps, and where her husband works. This example – a small informal workshop makes parts for a medium-sized factory, to which the owner of the workshop is connected both geographically and through familial connections, which in turn sells spare parts for motors originally made in a large and formally-organized factory– encapsulates nicely the complex social webs that make up the supply chain, linking formality and informality in

mutual dependence. Social networks serve both as an easy and obvious way that work gets done, as well as (or because of their very commonsense-ness) a means for deferring responsibility, disguising the deleterious effects of an economic system organized around bottom lines and production schedules, and a way of making sense of the experience of labor and of workplace accidents. Much has been written about the role of subcontracting in producing unsafe working conditions (Saxena 2014; 2020); this provides one example of what subcontracting looks like, why it is done, and the social relationships that comprise it.



*Figure 7: A completed o-ring collar*

Elaborate regional histories and variation between communities, genders, and fields of labor make it close to impossible to say anything definitive about the general state of labor in India. Research on labor in India has approached the subject from a range of viewpoints. Often these have focused on a particular industry – jute (Fernandes 1997; Chakrabarty 1989), agriculture (Pandian 2009; Ramamurthy 2014a; 2014b) knitwear (Chari 2004), handloom (de

Neve 2005), IT (Amrute 2016; Nadeem 2013), steel (Parry 2013)— investigating how labor constitutes and is constituted by social, economic, and moral relationships, and is intimately related to interlocking constructions of caste, gender, and class. Still others have investigated histories of industries, tracing the goods they produce throughout complex global chains (Arnold 2013; Kumar 2012), or considered work through practices of consumption, development, modernization, and aspiration (Carswell and De Neve 2014; Ramamurthy 2013). Valuable research on labor politics and organizing in South Asia explores the ways in which politics have been shaped by labor, and vice versa (Agarwala 2013; 2018; Chakrabarty 1989; Harriss-White 2003; Holmström 1984).

Throughout the 1970s and 80s much of the scholarship on labor in India focused on large mills, formally employed workers, and urban centers. These scholars, part of the Subaltern Studies movement, worked to decenter the notion that capitalism, and capitalist labor relations, around the world must resemble industrial capitalism in the West.<sup>13</sup> However, focusing especially on the politics of labor and labor organizing, and the relation of these politics to the fight for Independence meant that many, in fact most, forms of labor in India were not considered at all. The preponderance of studies of millwork and large industrial towns (Bombay, Calcutta, even Coimbatore), leave out what Harriss-White calls “the India of the 88 per cent” (Harriss-White 2003, 3). Big mills have historically been the seats of Indian labor movements, yet as Geert De Neve argues, the everyday politics of labor, and their role in constructing and

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<sup>13</sup> Subaltern Studies scholars show how subaltern practices consistently disrupt and confound the expectations of both colonial and traditional Marxist epistemologies which assume the predictable and teleological influences of capitalist systems of political economy (Chakrabarty 1989; Prakash 2003). However, in this work, as Leela Fernandes (1997, 15) has pointed out, the relationship between class and other categories of identity (religion, culture) is set up along an unquestioned divide which mistakenly privileges class as the domain of the material, while religion and culture are considered ideological and therefore separate.

reinforcing class and other identities are left out of a historiography that focuses on colonial accounts of industry as well as on momentous events and uprisings (De Neve 2005: 21).<sup>14</sup>

Mark Holmström (1984) draws on his own fieldwork (mostly in Bangalore and Bombay) as well as other quantitative and qualitative surveys of laborers, employers, union officials, and politicians, to explore the relationship between what he calls the organized and unorganized sectors. The main distinctions between formal and informal employment in his view are: “Above all, organized sector workers have security and unorganized sector workers have none. Two things perpetuate these differences: unions, which are strong in the organized sector but weak or absent in small firms; and labour legislation, which covers only the organized sector and is effective only in the larger firms” (Holmström 1984, 17).<sup>15</sup>

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<sup>14</sup> Geert De Neve (2005) claims that there is an overabundance of studies on India’s formal economy, as well as on large-scale economic processes, and that even those which do concern themselves with informal labor are still mainly interested in large factory work, while small-scale and artisanal informal labor is neglected. His research focuses on handloom, dyeing, and small powerloom industries in Tamil Nadu. Through an exploration of heterogeneous everyday labor politics, including issues of resistance and domination, he aims to address these insufficiencies as well as some tenacious assumptions which persist in academic writing about informal labor in India. These assumptions include the notion that that informal labor only takes place in small, usually home-based workshops and that this class is perpetually and inherently disorganized because it is riven with caste, kin, and labor divisions; hence the skill, technology, and organization of the informal sector is underestimated. He argues that these assumptions are visible in the common idea that acts of resistance characterized by foot dragging and other “weapons of the weak,” rather than by overt revolution are seen to be because of informal workers’ inability to organize on a larger scale, rather than because of strategic or logical choices on the part of workers (De Neve 2005, 10-12).

Joan Scott, too, critiques the labor studies historical canon for constructing a universalizing discourse of class formation which relies upon a focus on overt political struggle (J. W. Scott 1988, 84). James Scott’s now-classic *Weapons of the Weak*, also became very important for the way scholars throughout the 1990s and early 2000s thought about labor and resistance (J. C. Scott 1987). Just as class is starting to be considered something that is not tied inextricably to formal factory labor, resistance starts to be theorized as everyday acts like foot-dragging and time-wasting, rather than only organized strikes, walk-outs, or other spectacular forms. Another, more cynical, read might be that just as projects of international governance stripped power from workers’ unions and began to clear the way for supposedly unimpeded market forces, so too did scholars turn away from a focus on formalized labor and political struggle and towards micropolitics and everyday practices.

<sup>15</sup> Holmström argues that the dualism which sees these economies as completely separate is exaggerated and determines that the organized sector is not so much a citadel, but a mountaintop, with steeper and less steep sections separating it from other laborers and companies. There are paths, some well-trodden, that move people and goods between organized, unorganized, small-scale, and casual forms of work and production. Familial, friend, and community connections are important for getting work, especially for getting into a good, well paying, secure factory job. Of course, 1984 was a long time ago, and although particularly in histories of India and the Indian

Barbara Harriss-White writes that, “The large size, relatively high growth, and labour-absorptive capacity of the unorganised economy are distinctive features of Indian capitalism” (Harriss-White 2003, 20). She goes on to argue that, through a combination of labor law loopholes, unenforceability, and social controls, capital in India controls and informalizes, or keeps informal, labor. Much of the manufacturing workforce in India in the contemporary period is characterized by these qualities of flexibility, mobility, and precarity (Breman 1996; Gidwani and Sivaramakrishnan 2003; Cowan 2021; Soni-Sinha 2006). Although individual laborers or groups of them may win local and specific concessions from capital, it is usually in the absence of anything like a strong and unified worker’s movement, as Rina Agarwala (2013) shows, arguing that, increasingly in recent times, where informal laborers have organized successfully, it has been through strategies of defining themselves, not as laborers petitioning capital for workers’ rights, but as citizens petitioning the state for human rights.<sup>16</sup> Agarwala is ambivalent about these movements to organize amongst informally employed workers. On the one hand, she recognizes the importance of efforts to secure job stability and benefits from the state or an NGO

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economy the liberalization of the economy in 1991 is sometimes portrayed as a watershed event, certainly, many policies and practices which we might consider “neoliberal” were perfectly commensurate with the Nehruvian welfare state, and “pre-capitalist” or “pre-liberalization” forms and organizations of labor (including bonded and enslaved labor) continue unabated in the current period (Carswell and De Neve 2014).

<sup>16</sup> Rina Agarwala, rather than approach the distinction between the formal and informal economy directly, works to deconstruct the equation between *informal* and *unorganized* labor. Using data from Tamil Nadu, West Bengal, and Maharashtra, she argues convincingly that informal workers in certain circumstances can and do organize. However, as I wrote above, she points out that, increasingly, when informal workers organize, they typically articulate their demands not as laborers confronting management for workers’ rights, but as citizens confronting the state for human rights. This is made possible by their mobilization as vote banks, by which they accrue power to make demands of politicians who depend upon their support. Agarwala finds that this type of organization is stronger and more common in Tamil Nadu than the other states she investigates. The reason for this, Agarwala argues, is that Tamil Nadu has three important characteristics salient for this purpose: one, a long history of populist politics; two, at least two political parties that are frequently competitive in elections; and, three, a vested and expressed interest in the liberalization of the economy. This she opposes to the example of West Bengal, which, at least until recently, had a single powerful political party that usually did not find itself in competitive elections, and which (again until recently) resisted to a certain degree the impetus to liberalize its economy.

if not the employer. Furthermore, from an analytic and historical perspective, they provide an important counterpoint to the common assumption of Indian “exceptionalism” in which Indian workers are considered less capable of or likely to organize because of caste and ethnic divisions that prevent their self-identification as a unified working class. However, she also argues that these movements cannot be understood completely outside of a neoliberal political economy which is associated with the deferral of responsibility for welfare down to the individual, the weakening of social supports, and the increasing flexibility and precarity of labor.<sup>17</sup>

### **Risky Bodies**

Workplaces in general are often framed as particularly risky for women, as Chari, de Neve, and others show, this risk often revolves around the (perceived and real) danger of sexual assault and harassment, and serves to articulate tensions around women working in public more generally. That is, the risk of work to women is part of a discourse about who should be doing what kind of work in the first place. Machine work itself is likewise framed as particularly risky to women, this risk is also read as embodied—that female bodies (their long hair, weak muscles, loose clothing) are particularly ill-suited to work with machines (and the higher wages that often go along with it). Meanwhile, men are preferred for work that requires “heavy” machinery, for which female bodies are seen as ill-equipped. Workplace injury and the discourses and practices that surround it are informed by broader ideas about who is suitable for what kind of work, and hence workplace injuries and their sequelae are embedded in the reproduction of caste-based and gender exploitation.

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<sup>17</sup> “The labourers’ embodied flexibility is, in other words, always a flexibility *for* capital; secured through historically and geographically-specific social and material practices” (Cowan 2021, 69, emphasis in original).

The statistics aside (as my study attests, women often suffer “machine-crush injuries” if at a slightly lower rate than men), injury by machine is certainly perceived as a risk to which men are both more prone and better suited. Two things are happening here: one, the production of the masculine body through a particular kind of work.<sup>18</sup> And two, the availability of certain bodies for certain kinds of maiming (Puar 2017) is dependent upon the presumption that others (in this case, usually, women) are available for the necessary caring labor in the wake of an injury. As we’ll see later on, this is encapsulated by the added difficulty the women I spoke to who had been injured expressed: that, relative to men, their injuries were more difficult because first, they were still expected to perform reproductive labor in the household so they couldn’t “take rest fully.” And second, that they suffered greater stigma because of the perceived inappropriateness of a woman having been injured at work. The injury serves as a physical reminder of the way the body is produced through labor. This in turn is related to the ways in which caste, class, and gender are themselves also co-produced alongside the working body. The workplace accident and the regimes of care that spring up in its wake, then, allow us to see the ways in which these systems are part of the social reproduction of labor through the construction, reconstruction, and care for the laboring body.

Class, caste, and gender are certainly factors at the hospital as well, as we’ll see in chapter 3. The upper-level management of the hospital as well as the senior surgeons repeatedly emphasized their social justice and anti-casteist approach to me. In Chapter 3 we will see more about how the doctors value and evaluate bodies, but in spite of the progressive politics of the surgeons, caste and class discrimination operate on a daily basis in the hospital. For instance, it was typically easier for wealthy patients to make appointments in advance to avoid having to

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<sup>18</sup> see Chopra (Chopra 2004) for a discussion of how the masculine body is both produced *by* and *for* work.

wait to see the doctor, or, if they did come for outpatient hours without an appointment, they frequently jumped the queue. If we consider the apparatus of the hospital and recovery as part of the social reproduction of labor, these microaggressions are part of how privilege is imbued into wealthier and upper caste bodies. Elaine Scarry notes that to explain unequal distributions in resources, “as the problem of ‘the haves and have-nots’ is inadequate to express its concussiveness unless it is understood that what is had and had not is the human body” (Scarry 2010, 263). And Sarah Lochlann Jain writes:

[I]nequity is materially grounded in the body itself. In this sense, wounding and inequality are inextricable: the former an expression of the latter. In thinking about production... the problem of wounding emerges as one of physical takings through labor: the workers’ compensation laws instigated after Marx’s death might be read as an attempt to codify how much of a worker’s physical body may be spent in the process of production. ‘Excess’ wounding will count as injury” (L. Jain 2006, 18).

The consumption of bodies in capitalist production tells us not only the straightforward, albeit important, point that poorer people live riskier, more exposed lives, but also that part of the way that social categories including class, caste, and gender are created is through the distribution of bodily risk.<sup>19</sup> What kinds of woundings count as injury, and for whom, will be a question I return to throughout this dissertation.

### Danger and Responsibility

“Are these machines dangerous?” I asked, in each of the 32 interviews Jisha and I did.

We received one of two replies to this question, paraphrased as follows:

Either:

*Yes certainly, all machines are dangerous, but it is our responsibility to pay attention.*

Or:

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<sup>19</sup> See Ralph (Ralph 2014) for a discussion of a similar phenomenon with regard to race in the United States.

*No, the machine itself is not dangerous, the accident happened because of my own carelessness.*

These two responses are distillable down to the same basic premise, which is that everyone I spoke to claimed responsibility for their own accident, rather than blaming the machine or an owner/supervisor. I interpret this response as not necessarily a crystal-clear indicator of an interlocutor's innermost feelings; I recognize the possibility (perhaps likelihood) that people did perhaps hold a measure of blame for factory owners, managers, or working conditions, but that they were unwilling to admit this to me. Yet at least on the surface of things, with the exception of two women, to whom I return in the last chapter, these types of accidents were generally attributed simply to "bad luck". "என்ன சேய்ய? என்னொட தூரதிர்ஷ்டம் தான்." *What to do? It's just my bad luck.* The Tamil word for attention, focus, or care is *kavanam* (கவனம்), and it was a lack of *kavanam*, which can be read as either carelessness or distraction, that was most often attributed to the accident. கவனம் refers to all different kinds of care, in the English sense of to bear in mind or remember, but also to pay attention for example as a student does in class, or to care for, as parent does to a child. Unlike in English, the words for "accident" and "accidentally" or "by accident" in Tamil are very different. Accident contains a connotation of catastrophe, affliction, or calamity, while the word for something that happens by chance is தற்செயல். from the word for self (தன்) and செயல், providence or chance. தற்செயல் has a much more positive connotation and implies that something happen fortuitously or by divine providence. I never heard this word used in any conversations about these kinds of accidents.

Sankar, who worked doing machine maintenance at Texmo, a very large pump manufacturer, told us that he, and the other people on the maintenance team, do three different kinds of machine maintenance: routine (every machine in the factory is serviced once a week),

preventative (in case a potential issue is discovered in a machine) and breakdown maintenance. “Breakdown maintenance comes rarely, due to small problems, due to some carelessness or something perhaps on the part of the operator, and that causes a chance for some break in the machine.” It was, in fact, while repairing a broken-down core machine that his hand was injured. He told us, “Because of the machines, there is no danger. We ourselves, we bring the danger with us (*naamala edavathu paanunaal than, abathu*). The full operation of the machines is not known to everyone. In my case, if the person working [on the machine] previously had set the base level, this incident would not have happened to me.” Here, positioning responsibility and liability as he does, on his own shoulders and those of a coworker, Sankar does not raise his wounding to a level of injury that might be legible by a court or public opinion as something other than “just bad luck.” Although I argue above that the accident is inevitable, the philosophical question of why it happened to a particular person at a particular moment is not resolved by that assertion. Anthropologists from E.E. Evans Pritchard (Evans-Pritchard 1937) onward have explored questions of theodicy, magic, and luck.<sup>20</sup>

However, the blame for the accident being taken up by the worker themselves was somewhat at odds with the fact that the responsibility for paying the cost of the treatment nearly always fell to the factory or workshop owner. Nearly everyone with whom I spoke had the full cost covered, or nearly so, by the company. Only a few people paid out of their own pocket. One

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<sup>20</sup> Franz Steiner wrote about danger as a vague domain of power. In his writings on taboo, he argues, contra several other contemporary anthropologists (i.e. Margaret Mead) that, to understand taboo, one must examine political organization and the distribution of power, not only the religious or ritual aspect; “to face danger is to face another power” (Steiner 1999, 213). Steiner considered taboo a mechanism by which danger was localized and made specific. “Danger is narrowed down by taboo. A situation is regarded as dangerous: very well, but the danger may be a socially unformulated threat. Taboo gives notice that danger lies not in the whole situation, but only in certain specified actions concerning it. These actions, these danger spots, are more challenging and deadly than the danger of the situations as a whole, for the whole situation can be rendered free from danger by dealing with or, rather, avoiding the specified danger spots completely” (Steiner 1999, 1:213) If machines are seen as dangerous, it then becomes important to ask, for whom and in what situations are they considered dangerous? How does power shape these ideas of the dangerous? Prohibition, too, in this framework is a domain of power closely linked with danger.

man told me the owner of the sawmill where he was injured made a big public show of paying for the treatment, but actually he (the owner) had taken the cost out of back wages that he already owed to his employee, effectively cheating him out of those wages. And the several people I spoke with who are themselves the owners of small workshops or businesses of course had no choice but to cover the cost themselves, with the help of families, communities, and loans. It is easy to suppose, however, that the decision to cover their workers' hospital expenses functions as a means for owners to defer or stave off larger (and potentially, more costly) questions of liability or compensation above and beyond the cost of treatment.

I join other social scientists in attempting not to restrict agency to a purely human realm. I would not go so far as to say that the accidents are purposeful acts by the machine; however, I consider the workers and their machines in a relationship that is not wholly one-sided. Our worlds are constructed in and through our openness to social relations of all kinds. This openness is not necessarily benevolent; it can often be violent, or exploitative, even as it may also be shot through with moments of care. The accident is produced out of a network of relationships that includes machines, labor laws and policies, but also tiredness, power cuts, fellow co-workers, and luck. The responses to the accident, both before and after it happens, show that risk and bodily harm are themselves important presences at the workplace, but the way they are managed varies across different bodies.

As Sanchita Banerjee Saxena writes in her book on the garment industries in Bangladesh, Cambodia, and Sri Lanka, in the wake of disasters in the Bangladesh garment industry, particularly the 2012 Tazreen factory fire and the 2013 Rana Plaza factory collapse, the debate which took place over factory worker's rights was characterized by a focus on factory compliance and monitoring, while largely avoiding more fundamental questions about the ways

in which these accidents are built into an industry through a supply chain under immense pressure (i.e. pressure to go on producing surplus value) (Saxena 2014). Saxena argues that these disasters are produced, not through noncompliant factories, but through the pressure to produce at unattainable speeds, which encourages sub-contracting and makes it essentially impossible to maintain safety standards.

Karl Marx wrote, “in handicrafts and manufacture, the workman makes use of a tool, in the factory, the machine makes use of him” (Marx and Engels 1978, 409). These stories confirm his assertion about the inherent bodily violence of industrial labor. According to Marx, under conditions of capitalism, the capitalist's ultimate aim is to extract as much labor as possible from the body of the worker, without actually killing the worker before he can replace himself (we will turn to the social reproduction of labor more fully in Chapter 4):

But in its blind unrestrainable passion, its were-wolf hunger for surplus-labor, capital oversteps not only the moral, but even the merely physical maximum bounds of the working-day. It usurps the time for growth, development, and healthy maintenance of the body. It steals the time required for the consumption of fresh air and sunlight. It higgles over a meal-time, incorporating it where possible with the process of production itself, so that food is given to the labourer as a mere means of production, as coal is supplied to the boiler, grease and oil to the machinery. It reduces the sound sleep needed for restoration, reparation, refreshment of the bodily powers to just so many hours of torpor as the revival of an organism, absolutely exhausted, renders essential. It is not the normal maintenance of the labour-power which is to determine the limits of the working-day; it is the greatest possible daily expenditure of labour-power, no matter how diseased, compulsory, and painful it may be, which is to determine the limits of the labourers' period of repose. Capital cares nothing for the length of the life of labour-power. All that concerns it is simply and solely the maximum of labour-power, that can be rendered fluent in a working-day. It attains this end by shortening the extent of the labourer's life, as a greedy farmer snatches increased produce from the soil by robbing it of its fertility (Marx and Engels 1978, 373–74).

For Marx the accident is one end of a long continuum of ways in which the body is eaten by capital. Marx ends up reading the worker as an “automaton” who functions as an appendage to the machine, which drives the action. His argument that machines extract a toll from the bodies

of the people who work with them, is not, I don't think, controversial. All bodies, regardless of the kind of work they do, are shaped by that labor, to varying degrees of violence and harm. In a strict Marxist interpretation, then, the accident is the penultimate expression of the vampiric consumption of the laborer by capital.

Drawing on Marx, Alessandra Mezzadri writes about textile sweatshops in India, and the ways in which these “regimes” are related to and produced out of broader social relations, both local and global (Mezzadri 2017). She argues that the laboring body is consumed as a raw material, just as cotton and yarn are, in this industry. The structure of the industry is set up to allow capital to divest itself of responsibility for the social reproduction of labor — that workers’ bodies are exploited, used up, and then discarded, sent back home or back to the village when they are no longer able to work, externalizing the cost and responsibility for the ill health effects of unsafe and underregulated workplaces to families and communities. Rana Plaza, she argues, is an extreme example of the kind of daily health risks faced by workers in this industry, and should not be taken as exceptional, but rather as produced out of the same social conditions of labor that produce injured hands and aching backs (Mezzadri 2020, 162–64). In part, these deplorable conditions and the fact that regulations (even in the aftermath of the Rana Plaza disaster) have and continue to fail to address them is related to the availability of a large and flexible workforce (often referenced as one of India’s “comparative advantages”). “Indeed, in all cases, health outcomes appear as inextricably linked to processes of accumulation, and the social relations of production they entailed” (Mezzadri 2017, 164). Bridget O’Laughlin (O’Laughlin 2017) also shows, through her work in the sugar cane industry in rural Mozambique, that poor health outcomes for the workforce are intrinsic to industry itself, the way work and labor regulations are organized and deployed, and the attendant conditions of labor:

The eating away at the health of workers in the process of the organisation of recruitment, housing, pay and labour processes is entirely consistent with Marx's view of the inherent tendencies of capitalist production; wages and conditions of work need not assure the reproduction of workers as long as a continuing flow of new workers can be found or wages complemented by the contributions of others producing and sharing outside the wage relationship" (O'Laughlin 2017, 629).

As both of these writers, and many others (Carswell and De Neve 2014; Chan 2020; Drèze and Sen 2013), not to mention histories of labor organizing that have proven the public health benefits of safe working conditions demonstrate, the health or ill health of workers (and their communities and environment, too) is produced in the workplace and fundamentally related to working conditions, processes of accumulation, and labor regulations. Indeed in this chapter I have argued that the accident itself is constitutive of the experience of factory labor.

Undoubtedly, also work-related injuries and illnesses, as already factory fires and collapses, should be understood in relation to the overall social relations and labour practices at work in the industry. They illustrate how given patterns of accumulation may wage a proper war on the laboring body, and how the development of capitalism may imply a complete disregard for the social reproduction of the workforce, at least in the absence of a serious threat to profitability and — even more crucially — in the absence of legal limits to exploitation" (Mezzadri 2017, 163).

However, the cases I explore throughout this dissertation build upon this literature by providing a counterexample in which the injured worker, rather than being discarded or abandoned and replaced, is cared for instead, his or her body subjected to a surgical intervention to suture the embodied evidence of the impact of working conditions on the body, and return the worker as "a productive member of society." While I argue, alongside these researchers, that the injuries are indeed produced through the social conditions of production, I show as well that capitalism does not necessarily also entail an absence of care, but rather that, in part because capitalism makes use of local resources, social structures, and other conditions, it can also be deployed or extended through a variety of processes and practices of care. In the cases of the people I spoke with in Coimbatore, rather than being abandoned, a great deal of resources,

medical expertise, technological know-how, and familial and community care were mobilized to (attempt to) address and repair these injuries.

The primary site for my research was a hospital, not a workspace. Because of this, because I approach work through the injury rather than the other way around, I am able to trace the connective tissue between the spaces of the hospital and those of work, and to see where and how they feed into one another. Moving between the factory and the hospital reveals the modes of care that connect these spaces. These practices are both outside of and contributing to the exploitation of the worker. We see here both the depletion of the worker's body and the way that it is undone and remade at the hospital – to what end, by whom, and with what consequences are questions I turn to throughout the remainder of this dissertation.

### Machines and the Invention of the Accident

Because the people I spoke with work in a variety of industries, they have experience with a variety of machines, from saws, to presses, to computer numerical control (CNC) machines, to looms. However, a plurality of my interlocutors were working with some kind of press at the time of injury. There are many different types of presses, but in general, the term refers to a machine that, when activated, depresses a die with a considerable amount of force (the ones in Padmini's shed, which are relatively small, are 3- and 5-ton presses — which means they deliver 3 or 5 tons of force), thus punching into shape whatever has been placed underneath the die, in these cases usually a piece of steel. Die-casting is itself a sizable industry in Coimbatore, and the shape of the die will determine the shape the metal is pressed into (see Figure 3).

As I said at the top of the chapter, Padmini owns ten foot-pedal operated mechanical presses and four hydraulic presses, which require two-finger operation; that is, you have to push two buttons, on either side of the machine, simultaneously, for the machine to depress, thus

attempting to assure that hands are clear before the machine depresses. Other presses contain sensor fields around the die and will not depress if anything is in that field. Foot-pedal operated presses are considered, for example by OSHA, inherently dangerous because they allow the operation of the press without ensuring that the operators hands are clear. In many parts of the world, including the US, foot-pedal operated presses are required to have guards or sensors that ensure body parts are clear before the machine depresses.<sup>21</sup> Padmini bought her presses from a shop near the flower market; they were made in Gujarat, in northern India, although services and spare parts for these machines are made and widely available in Coimbatore. Larger, more state-of-the-art factories like Texmo or Aquatex which make pumps, or Tricol, which makes car engines and other parts, most often source their machines from Germany and Sweden.

I want to resist the equation I've just set up above, however, in which machines made in the “West” are somehow safer or more “state-of-the-art” than those made in India. First, the assumption that goods and technology travel from the technologically advanced North or West to the developing South or East is both incorrect and deeply problematic. This teleological and imperialist formulation of the history of industries and goods has profound and lasting political implications, but it also ignores the exchange of goods and information that flow in all different directions. Further, it ignores the ways in which goods produced elsewhere are always adjusted and adapted by the people that actually use them (Arnold 2013).

I complicate this problematic equation in two ways. First, by exploring the practices by which, as people adjust to machines, they also tinker, toy with, and make adjustments to the machines themselves, often in the name of safety, and as part of the affective relationship between workers and their machines — a relationship that is both interrupted and revealed in the

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<sup>21</sup> Which is not to say that these regulations are not commonly ignored or bypassed (cf Waldman 2017, Damon 2020).

accident. I return to this point below. Second, I did speak to people who were injured at “state-of-the-art” factories, showing that, although rates of injury may vary, there is no technological advance you can make that eliminates the risk of these kinds of accidents. This follows Paul Virilio's argument in *The Original Accident* (Virilio 2007). Virilio argues that accidents and catastrophes are produced simultaneously with the industries: “To invent the sailing ship or the steamer is *to invent the shipwreck*. To invent the train is *to invent the rail accident* of derailment. To invent the family automobile is to produce the *pile-up* on the highway” (Virilio 2007, 10, emphasis in original). I find two things about his theory of accidents compelling: first, the emphasis on the co-constitution of the industry and the industrial accident can help unravel the apparent blamelessness of accidents. That is to say, if to produce a machine is equally to produce someone's hand getting caught in that machine, the language of “accidents,” is problematic, as it obscures inevitability of these incidents, the way that they are built into the industries themselves, the way that crushed hands are produced just as o-rings and car engines are. Furthermore, in highlighting the way that the industry produces the accident, Virilio also draws our attention to the way that certain industries produce *specific kinds* of accidents. The family automobile cannot produce a rail derailment, rather particular kinds of labor prefigure specific forms of maiming. The hand injury, here is produced out of a distinct interaction between machine and human; the injury itself then also gives rise to specific forms of care, gender, and labor. It is this specificity that I draw out throughout this dissertation.

I argue, too, following Virilio, that a particular constellation of bodies and machines produces not only different kinds of accidents and different forms of care, but also various notions of blame. As we will see below, notions of fault, liability, and responsibility are complexly negotiated after an accident; however, unlike, for instance, a rail accident or a large-

scale factory disaster, in the cases of my interlocutors a great deal of blame was focused on the individual. Whereas someone injured in a rail derailment is unlikely to blame themselves, the workers I spoke to frequently talked about their own responsibility for the accident, as Kannan did at the start of this chapter. I continue to use the word accident here, or injury, both because the Tamil word for accident, *vipathu* (விபத்து), or injury, *kaayam* (காயம்), are what my interlocutors used, and also because I struggled to think of an alternate word that wasn't equally innocuous (i.e. incident), or overladen with connotations, anthropological and otherwise (i.e. violence).

The second thing I take from Virilio is a critique of the media portrayal of accidents; he does not think that the emphasis on fear and spectacle is the same as “taking accidents *seriously*” (Virilio 2007, 12, emphasis in original). Nor is risk science; calculations about the chances that a nuclear plant will melt down distract from the fact that the disaster is created at the moment when the plant is built near human habitation (9). In fact, he argues, the spectacular and grisly portrayal in the media of accidents and catastrophes is as much a form of censorship as overt concealment (27). The representation of accidents and injured bodies as spectacle erases, for Virilio, again the way that these accidents are inherent to industry, and, for me, this representation contributes to a notion that these accidents are unusual, when they are, in fact, all-too-everyday aspects of labor for many. I would add, too, that we must be critical of what kinds of bodies are made visible, and in what ways. For instance, in the wake of the Rana Plaza Factory collapse on the outskirts of Dhaka in April 2013, photos circulated in the media primarily of women— crushed, trapped, injured, dead, or mourning. These grisly and moving images were a powerful part of the important (if incomplete) political and moral response to the

disaster, yet they also serve to create a discourse around what kinds of bodies are available for certain kinds of work, certain kinds of injury, and certain kinds of viewing practices.

Sarah Lochlann Jain writes about legal definitions of injury as they relate to product design, consumer rights, and tort law in the United States (L. Jain 2006). In some ways, her work is far afield of this project — she studies risks to the consumer rather than the producer, and is focused on the unique legal code around injury in the United States, specifically the strength of tort law in that country. The same legal norms and structures do not exist in India. However, her critical question of when and how does wounding become injury is very relevant here. Jain shows how, “if we understand human wounding to be a central feature of capitalism, the ‘accident’ or ‘side effect’ lens of injury laws affects how suffering is both distributed and made legible” (Jain 2006, 8). She explores the processes by which only particular forms of wounding are made legible by the legal system as pernicious, while other forms of suffering are not, and hence are cast as acceptable or expected collateral damage.

There is a contradiction between the fact that an individual accident will be seen as avoidable in retrospect (if the worker hadn’t been tired, if the machine hadn’t gotten stuck), but a certain number of accidents are expected each year, and, given reliable statistics, can be accurately predicted (Ewald 1993). Questions, then, of cause, responsibility, and luck loom in the wake of an accident. Virilio’s argument that the industry invents the accident is borne out by the fact that the number of accidents in a given year is predictable, yet the proximate causes of why this particular accident, to this particular person, on this particular day are questions that individual workers struggle to make sense of for themselves, as well as, occasionally, in a court of law.

### Time and the Accident

EP Thompson has described the way that capitalism, and factory labor in particular, affect the way that people experience time (Thompson 1967). He cites a great many examples from a variety of sources from industrial rules set down for factories to Methodist sermons which established time as something the owner paid the worker for, and which therefore belonged to the owner and was not to be wasted by the worker. A whole apparatus of measurement and surveillance arose to ensure that the employer was not paying for time during which the worker was not working. Furthermore, idleness and leisure, getting up late, and staying up late were overlaid with moralistic overtones which valorized productivity and punctuality, and vilified laziness and inefficiency. Education too, writes Thompson, was considered in the service of industry, and time discipline was to be imparted to young children to keep them from wasting time, being rowdy, and growing up to be lazy, undisciplined workers. These were methods by which not only were workers disciplined and their labor power harnessed, but also by which the 24-hour clock was internalized and made a fundamental and moral part of life more generally.

Thompson also writes about systems of resistance to this time discipline. He argues that at first workers resisted this discipline outright, but that by the second and third generation, they no longer resisted the *idea* of the clock, but resisted the way it was *used* (i.e. they agitated not against the measurement and surveillance of their work at all, but rather for the shortening of the working day). Clocks were tampered with (or thought to be tampered with) both by workers and owners. Owners worried that workers set the clocks forward, and workers accused owners of adjusting the clocks to lengthen the working day and shorten meal breaks. “In all these ways—the division of labor; the supervision of labor; fines; bells and clocks; money incentives; preachings and schoolings; the suppression of fairs and sports—new labor habits were formed, and a new time-discipline was imposed” (Thompson 1967, 90).

Timing, temporality, and orientations towards the future are present in everyday conversations about work and in the way work is regulated. Padmini told me that her workshop is not “yet” formal—“we started three and a half years back, in this year we have thirteen employees now, only now the company is getting developed, so we have not yet started the ESI and PF.” ESI stands for Employee State Insurance, a health insurance scheme all employers must pay into on behalf of their workers, and PF is the Provident Fund, which is a pension program. Padmini’s explanation here means that they are also not regulated by laws governing formal factories, such as the Factories Act (which require 20 or more employees), but, she implied, given her plans for growth and the fact that they’ve been in business for three years, soon she will have to register her company and begin paying into ESI and PF for her employees.

Now, for a day of work (9am-5:30pm, with 30-minute break for lunch), each woman is paid 175 rupees, or USD 2.75. When I asked about their accidents, each woman, Padmini included, said it happened because of their own carelessness or inattention. When I probed about whether the machines were dangerous, Padmini said, “Yes, definitely, in all kinds of work, there is risk,” adding:

“At *first*, a person will work with full concentration. At *first* there will be some fear. But after some *time*, they *get used to* the work and they have some over-confidence. These accidents *always happen* at the *evening time*, you can hear the children returning from school, and they’ll be thinking of other things, what other works in the home, and so on. And that’s how the accident *happens*” (emphasis mine).

Notice the notions of time that are sprinkled throughout Padmini’s explanation of the accidents. Even the tense implies the inevitability of the accident and the way expectations of the accident are produced in the very language used to discuss them (“will...always...happens”, rather than might...sometimes...may happen). The timing of the accident itself is very important, not only to Padmini, but to everyone I spoke with. The timing of the accident and its coincidence with other

timed events are part of how the accident is made sense of and folded back into understandings of the everyday. In Padmini's description of when and why the accidents happen, she encapsulates beautifully the ways in which production and reproduction are closely fused. This image of a woman sitting at her machine, hearing the shouts of children in the lane outside over the rhythmic *hum-bang* of the machine, and beginning to think of the second shift of work awaiting her at home is poignant precisely because it knits together labor, care, and violence, showing the cost and risk of the social reproduction of labor. The fact that the injury happens at *that* moment, that it makes sense that a mother would be distracted by those sounds and lose track of the interplay between her hands and the machine, is evidence of the gendered way in which people are produced as workers.

Another person we spoke to told us that, shortly after purchasing a plastic injection-molding machine for himself, Coimbatore experienced a summer with numerous power cuts. Because weeks went by with full-day power cuts, he started going to operate the machine at night, because "only in the night would the power come." One night while working, he switched the machine on before his hand was clear; he told us, "I didn't know [my hand was inside], I was drowsy, it was 4:30 in the morning. I was working in the night shift. I kept my hand inside and switched on the button, it was my mistake only." Again, the question of blame and responsibility is at play, but here I want to highlight the notion of timing and temporality, and the way that work, and the accident are only made sense of and understandable through the complex interaction of various and overlapping networks, here: the time of day, the power cuts, the necessity of working, and physical exhaustion. These examples point us to the important fact that work is always, already embedded in multiple and overlapping other social, political, and infrastructural networks. It's not just that those things create a chain of causality that leads to the

accident, it's that the accident, and work itself, is embedded in complicated chains that stretch out beyond the factory or workshop walls and include both human and nonhuman actors which nonetheless seem to condense at and into a particular moment, coalescing around the instant in which the hand is caught.

The notion of distraction or carelessness, along with tiredness, as an important proximate cause for the accident, is itself an idea embedded in and made sense through temporality. Consider the warning sign I saw at the sugar factory near Madurai, “a moment of inattention can result in a lifetime of limbleness.” The interpenetration of the necessity for focus *now*, counterbalanced with the threat of harm and debility *later*, tells us something important about the way that labor is experienced, the way that the accident is hailed, expected, and made sense of,



Figure 8: The text on the machine reads, "Warning Moving Parts can Crush and Cut Operate Carefully"

and reverberates into the future. This recalls Alison Kafer's (2013) intervention, too, in the way that disability is made sense of in and through time. In these conversations, signs, and imaginations, an able future is juxtaposed against a disabled future or, for people who have experienced an accident, a disabled present is juxtaposed against an able (and, hence, productive) past (an idea we'll return to in detail in Chapter 3). Ability and productivity are both constructed through an understanding of time that depends up work and other specific forms of movement and bodily ability as the primary measures of both productivity and, therefore, value.

We can read the injury as itself a form of discipline for lack of attentiveness. The worker is not entitled to be distracted or unproductive during time for which the owner is paying them, and such a momentary lapse is punishable by the machine, which delivers a sharp rebuke: *pay attention* (Figure 8). However, I seek to complicate this very violent portrayal of labor under capital, in which the body of the worker is consumed over time by capital, whether through the slow wearing down of aching muscles, or through the sudden interpenetration of body and machine. I want to add complexity to this portrayal, both to give agency and voice to the people who are working with the machines, as well as to consider the possibilities that care is not completely evacuated under conditions of neoliberal capitalism, or rather, to attend to the ways in which violence itself is not incommensurate with care.

As Geert de Neve and others have shown, an affective, even caring, relationship often exists between workers and their machines. "Each worker knows his or her machine and also knows its weakest parts and what can go wrong with it as well as how to repair it. They alone know how to get the best cloth out of it" (2005, 131-132). Machine work was something that my interlocutors described as a process, an ongoing, interactive, embodied experience through which the worker became accustomed to the machine. Machines had different speeds, shapes, and

rhythms, and demanded different kinds of bodily comportment and working style from their human counterparts. And all machines demand some form of care: oil, cleaning, maintenance, the occasional visit by a priest: these are all daily forms of machine-work that are also understood as caring labor. Oddly, accidents happen both in the absence of regular care work (i.e. because a machine has been neglected) and frequently *at* moments of care. Many injuries were sustained while oiling a machine part, while cleaning a running machine, while adjusting or fixing a broken piece. These relationships demand care, and yet care itself is also risky.

As Radhika Govindrajan shows, relationships of care and violence are often inextricably bound (Govindrajan 2018). Far from being opposed, in the cases she examines, everyday caring labor is an integral part of enabling, producing, and legitimizing certain forms of violence. Can we extend her argument from the intimate world-building human-animal interactions she explores, to human-machine laboring relations?

### Conclusion: Tinkering and Care

A few weeks after our initial visit, Padmini called to invite me to a celebration of Aayudha Poojai at her home. Aayudha Poojai is celebrated during Navratri, although in Tamil Nadu, where Navratri is relatively smaller compared with its celebration in much of North and East India, Aayudha Poojai takes on more prominence in its own right. It is a day for worshipping and celebrating instruments of all kinds, and people often bring cars, motorcycles, as well as computers, books, and other small machines to temples to be blessed. Padmini's machines obviously being too big to transport, after visiting the temple with her family that morning, she had called a priest to come perform a puja for all of her machines. She invited a number of friends, neighbors, and family members to lunch after the puja. A catered non-veg lunch was served on her roof, on long tables laid with banana leaves. Afterwards, she showed me once

more around the workshop; the machines (off for the day, although it was a Tuesday), had been cleaned and freshly oiled, hung with garlands of flowers and dotted with kumkumum.



Figure 9: Tinkering

Again to resist the binary between safe/unsafe machines (which corresponds with other troubling binaries—technologically advanced/backwards, developed/developing, East/West, etc), it is also important to note that people are not wholly at the mercy of machines or technology. As many other researchers show (Latour 2005; Oudshoorn and Pinch 2005; Jungnickel 2014; Arnold 2013),

people everywhere appropriate technology for their own ends, in unforeseeable ways. In Coimbatore, people tinker with and make adjustments to their own machines. These adjustments parallel their own adjusting embodied habits: just as backs bend in a particular way and shoulders shift to make room for a machine part, bits and bobs are added to or taken from a machine to make it more usable for the particular worker who comes to know it. For instance, after the third injury in her shop, Padmini decided that something should be done about the foot pedals, which she came to see as unsafe. She paid a welder to attach a cane-shaped tube of metal (Figure 9) onto the foot pedal. Now, rather than using their foot, workers use their right hand to push depress the machine; Padmini hopes that this aftermarket adjustment will make the

machines more safe to work with, because it will be more likely that a worker's hands will be clear of the depressing die.<sup>22</sup> The addition of the hand levers makes the work go more slowly—the advantage of the foot pedal (from the perspective of capital) *and* the reason it is more dangerous, is because it doesn't cost the extra seconds it takes for a worker to take her hands off the machine. So here this tinkering can also be read as a form of care (Mol, Moser, and Pols 2010) that Padmini performs for her workers, one which may cost her materially in terms of slower production.

In this chapter, I have argued that a detailed consideration of the accident can and should inform our understandings of labor. While the accident plays a role on the peripheries of previous studies of labor, by foregrounding it, we can see more clearly the texture and stakes of everyday labor, the construction of other social categories including caste, class, and gender, and the systems and techniques of social reproduction of labor, a topic which we return to in chapters 3 and 4. The accident both reveals and ruptures our embodied experience of time; in the next chapter, by focusing on accident narratives themselves, I explore in more detail the articulation of the accident with various forms of temporality, as well as with the temporal horizons and possibilities for care and recovery.

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<sup>22</sup> We can read this as a “tactic,” following Michel de Certeau, a means of reworking something that was designed with a particular form of use in mind, tweaking that form to the user's needs (de Certeau 2011).

## Chapter Two

### Care, Habit, and Narrative

*“[E]veryday care work is a form of generative labor that simultaneously sustains independent persons and intensifies inequality.”*

-Elana Buch *Inequalities of Aging* (2018)

#### Introduction

One afternoon in the end of March found Jisha and me, sweating in the shade of a small tree at the end of a dirt lane in northeast Coimbatore, not more than ten minutes' drive from my apartment. We were interviewing someone outside of his workplace, a metalwork shop that makes spare parts for borewell pump motors. Leaning on his motorcycle, he told us about not just one, but three injuries he had suffered at work over the preceding four years. After the interview, during which he ran us succinctly through these accidents and the treatments he had received for them, we thanked him, turned off the tape recorder, and he mentioned, as an

apparent afterthought, that there was a woman who had been working at the same workshop who was injured just six months back. *She lives right down that lane*, he told us, *do you want me to call her and see if she'll speak with you?* Twenty minutes later, we were being ushered into a small living room, plastic chairs were produced, cups of coffee appeared, and we sat down with Chitra, her husband, and their eldest daughter. They are a Malayali family, originally from Pallakad, a town in Kerala (the neighboring state) only an hour or so from Coimbatore. Jisha is also from Pallakad (in fact it turned out that their families have friends in common), so she took the lead in this interview, conducting it in Malayali for the comfort of Chitra and her family. At this point we had done nearly twenty interviews together, so Jisha knew the way these conversations usually proceeded, as well as what questions to be sure to ask. Malayali and Tamil are similar enough that I could catch the topic under discussion, and Jisha interpreted back and forth for me throughout. I copy a section of the transcribed interview, to give a sense of the way these accident narratives typically unfolded. Several elements of her story repeated for many of the people we interviewed, and I highlight these below.<sup>23</sup>

\* \* \*

**[JISHA]** What kind of work do you do?

**[CHITTRA]** I work at a press machine. There's a long sheet of steel, I put it into the machine, and press it into a shape. While it's running, I have to add oil in the machine from time to time, and once the machine has pressed, I have to change the position of the steel and press again.

**[J]** What kind of work were you doing at the time of the accident?

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23. Parts of this story are graphic and I have struggled with whether and how to represent them. I know some readers will find them shocking and, perhaps, unnecessary details. Although I am committed to presenting them in a way that maintains the dignity of my interlocutors, I also, drawing inspiration from Jason DeLeón, Philippe Bourgois, and others, argue that they *should* be shocking (De León 2015; Bourgois and Schonberg 2009). Sparing my readers the graphic details of these accounts obscures the violence that is done to particular bodies in the service of capitalism. Stories of the accident and details of its sequelae are fundamental to understanding the way risk, violence, and injury are wrapped into commonsense understandings of everyday labor, and betray the violence capital enacts. I therefore present these stories as much in the words of my interlocutors as I can, and with the same straightforward and sober tenor in which they were most often recounted to me.

[C] I was working with this same machine. While I was about to turn the steel, I noticed that oil was leaking from the machine, so I went to wipe the oil, and to add more oil, and my right hand got sucked into the wheel and rotated. The remnants of my fingers got sucked inside the machine and the motor stopped. If too much dust gets in the motor, it will stop automatically. In my case, I was adding the oil and on the other side I was wiping the leaking oil; the wheel where I was adding the oil caught my fingers and rotated, my three fingers got cut, went inside, and the motor stopped.

[J] So you couldn't take your hand out?

[C] The wheel pulled my fingers off, and only after that I was able to take my hand out of the machine.

[J] Were you able to get the remaining fingers out of the machine?

[C] There was nothing remaining to take, everything got completely smashed. Only one finger and thumb were remaining in my hand.

[J] Did you feel pain?

[C] At that time I felt only numbness. After I took my hand out of the machine, I came running back, and all the other workers, they held me and made me to sit. And then I went to the hospital.

[J] Did you go to any nearby clinic or directly to Asha?

[C] No we went directly to Asha.

[J] Who went with you?

[C] 2 or 3 people from the company. We went by auto.

[J] What time did the incident happen?

[C] 8:15 in the morning. After 15 to 20 minutes we reached the hospital.

[J] You couldn't bring the fingers to the hospital because they'd been smashed, right?

[C] Yes. If it had been neatly cut we would have brought, but here we couldn't.

[J] You lost three fingers in that machine?

[C] 3 fingers fully got crushed, and one finger (my thumb) a little.

The pointer, middle, and ring finger on her right hand, along with part of her thumb had to be amputated, although some of the metacarpophalangeal joints were preserved, meaning she can still move her palm. After debridement, the surgeons at Asha performed a hip flap<sup>24</sup>, and a second outpatient surgery a few weeks later to remove the hand from the hip. The third surgery was performed several months later to reduce the swelling and excess skin, give her more

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24. a surgery in which the injured hand is sewn into a "pocket" of skin on the hip to reestablish blood supply and replace lost tissue

mobility in her palm and, hopefully, the ability to touch her little finger to what remains of her thumb.

Chित्रa’s language of body parts being “sucked into” the machine was very common. The machine was rarely discussed as actively grabbing, or trapping body parts, rather body parts got trapped, got stuck, got sucked (a different grammatical construction in Tamil—and Malayali). Yet the machine has a momentum and force of its own, many people told us that once you push a button, or a foot pedal, there’s no stopping the machine until it has finished its cycle. You have to either wait or try to pull your hand out sooner. “Once my fingers got stuck, I used my other hand to pull my arm out, otherwise the whole arm would have got rolled into the machine. So only my fingers went, if I hadn’t done that, the whole arm would have gone,” someone else said. The coincidence of the accident with other irregularities was very common: whether the need to add oil to a machine part, the need to fix or adjust a stuck or broken machine, an unusual level of exhaustion or distraction brought about by external factors, or confusion or miscommunication with coworkers.

\* \* \*

**[GOPAL]** I’m an electrician. [The accident] happened while I was checking the motor in a machine...in the motor there’s a fanbelt. The belt is broad, it had cracked and broken; I had replaced it, put everything back together, and I was checking whether everything was assembled properly. We’ll switch on the machine to check whether it’s working properly, but before I had taken my hand out, the young man who was working with me switched on the machine. He didn’t realize my hand was still inside.

**[LILY]** What happened to your hand, was the finger fully cut?

**[G]** No, it was crushed badly. But I don’t remember what happened. After, I was taken to the hospital. When I came to the hospital, my hand was like that (bleeding, smashed).

**[L]** Which hospital?

**[G]** I went straight to Asha. If any of the workers get injured, they usually take us to Asha.

**[L]** Are these accidents common?

[G] Sometimes they happen (*eppaachuthan nadakkum*). Usually it doesn't happen, just sometimes.

\* \* \*

Likewise a feeling of numbness, as Chittra and Gopal describe, in the immediate wake of the accident was almost always recounted, or a lapse in memory, followed by an upswell in activity around the injured person, as friends and coworkers scrambled to help, to call cars or auto-rickshaws, to inform family members and to begin the process of moving the person to the hospital. Said one interlocutor, “I didn't feel the pain for a long time. There was pain, but not too much, I couldn't feel much of anything. On one side my wife was crying, and the other side the in-charge person who came with me [to the hospital], he also was crying, but I didn't feel anything.” Recalling the previous chapter, we can see here the way that the accident reveals the workplace as also a space of care. Initial forms of wound care and first aid vary in their degree of complexity and formality. Some factories have on-site first aid clinics, other injured workers rely on the knowledge of their coworkers about interim care measures including stopping bleeding, packing amputated body parts in ice, helping a person to sit and to elevate the injured body part while others call for a taxi, an auto, or an ambulance. After the injured person is taken to the hospital, additional difficult caring labor takes place, that of cleaning up the scene of the accident, wiping down machines and floors. This kind of labor, which happens so quickly in the wake of an accident, is part of suturing the rupture in the everyday caused by the accident. It is also, perhaps, a way of mollifying the ghostly presence of the memories of the accident – both for the injured person when and if they return to work, and for the coworkers who experienced the accident vicariously.

In this chapter, I explore the ways in which people narrated their accidents, and how this narration was part of a longer process of making sense of the event. These narrations are part of a

longer process of meaning making, of folding the accident back into the texture of the everyday. Yet this process is often incomplete or partial, and subject to failure as well. I explore how people attempted to make space for the injury and, crucially, how they were unable to do so. These stories emerge out of and craft a material world as well, and I attempt to hold together narrative and material processes of meaning-making, of making space, and of failure. My interlocutors by and large did attempt to find secondary causes for the accident – whether their own tiredness, a fault on the part of the machine, a miscommunication with a coworker. However, unlike in the examples Arthur Frank and Arthur Kleinman explore, people did not tell a triumphant story of overcoming an injury, rather they told a story of the slow process of adjustment, of making space for the injury, for the bodily changes it wrought (Frank 1995; Kleinman 1988). I focus in on these ideas as well, exploring the relationship between habit, care, and the body.

As we will see, these stories frequently revolved around questions of care; the impact of the injury was often articulated in terms of new ways of being in relation to others, whether the inability to care for children in the same way as prior to the accident, or by tracing the forms of familial and community care that sprung up in the wake of the accident, or by understanding self-care and recovery as also-always a practice of caring for others, a way of being able to reenter previous embodied caring relations. By exploring the interconnections between care and capitalism, I trouble both the idea that there is no room for care in capitalism, that is, that caring practices happen somehow outside of or on the margin of capital or, relatedly, that caring practices are so consumed by capitalist processes that they are no longer recognizable as care. Drawing on my interlocutors' theorizations as well as literature on illness narratives and care, I

complicate these two sets of arguments about capitalism and care, showing, rather, that care happens in and through capitalism while also exceeding it.

### Mathan Raj: narrative, practice, and adjustment

Illness narratives have a long history in medical anthropology. In Chapter 3 I will discuss in some detail the way that the physicians “en-case” their patients and their stories — eliminating information seen as superfluous or chaotic into standard medical case formats (Holmes and Ponte 2011). However, I want to start with the way people narrate their own stories—harkening back to now-classic anthropological work on illness narratives which sought to disrupt clinical narratives that were overly focused on the physical conditions of illness, ignoring wider social and political etiologies and meaning-making practices (Kleinman 1988; Good et al. 1992). The point of illness narratives literature was to show that illness experiences do not just happen in the body—rather they are felt, expressed, made sense of, and produced in and through social and political relations. To understand an illness experience, then, you cannot only look at the physical or individual aspects of disease, but must situate them within the social spheres in and through which they are made. Illness narratives also help the researcher (or clinician) focus in on the stakes for the particular individual in question, rather than assuming the authoritative perspective of biomedicine, which considers a patient’s own subjective experience somewhat superfluous to the processes of diagnosis and treatment (Kleinman 1988; Foucault 1994). Furthermore, narrating an illness story along a set of culturally-meaningful tropes provides for the ill or injured person a means of reasserting control and making sense of an ontological shift (Frank 1995).

Since these earlier writings on narrative, much of the anthropology on the experience of illness has focused on bringing the material back in as well—the experience of pain, the

sociopolitical causes and consequences of illness. Scholarly work on illness narrative now often attempts to do both, bring together people’s own framing of their disease with (both their and the anthropologists’) theorizations of the wider structures behind that disease. Although I draw inspiration from early work on illness narratives, particularly in its aim to expose forms of governmentality inherent in clinical encounters (Foucault 1994), I align more closely with approaches that bring together meaning-making with the material circumstances in which these stories take place. For instance, Das and Das situate the illness narratives of the “urban poor” in Delhi in their material surroundings, paying particular attention to the experience of various forms of precarity—social, familial, economic, embodied (Das and Das 2007). Das and Das argue that, although the illness narrative has been a useful tool to explore governmentality and how it shapes lives and bodies, this focus on meaning has paid too little attention to material realities and exigencies.<sup>25</sup>

We interviewed Mathan Raj in his home near Mettupalayam, a town about 20 kilometers from Coimbatore. He lives in a nice house, a new home they built the year before, and had just moved into it a few months earlier. His wife, a friendly and welcoming woman, made us coffee and his son, in 5th standard, chatted with Jisha and I about his favorite classes at the private school he attends, while Matt and Wesley played on the stoop. Mathan Raj works at a large multinational company just outside of Coimbatore that produces car parts for numerous

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<sup>25</sup> Das and Das indicate that there was a spectrum of interpretation along which various illness episodes registered for their interlocutors, some were taken to be normal events in the ordinary course of life, attributable to everyday things like the changing seasons, while others, on the other end of the continuum, were described as more disruptive events which both arose out of and indicated a more fundamental failing, not only in the body, but in the network of social and caring relations that are meant to sustain it, while still others fell somewhere in between, narratives that elaborated on past illnesses and linked them to economic and familial conditions (69-70). The authors discuss the way ideas of normalcy are related to and constructed out of/in tension with material conditions of life and everyday violence. “In such cases, the question of what is normal is mediated by the questions, what is illness? and what is treatment? under conditions of poverty” (77). As we’ll explore below, the questions of what is ordinary and how can we reestablish the ordinary (or descend into it, per Das 2006) are posed particularly persistently in the wake of bodily trauma.

companies including Ford and Harley Davidson, as well as Indian companies like Tata and Mahindra. This company has production centers in seven different countries; the one in Coimbatore, where Mathan Raj works, employs some 2000 people, 1400 of whom, Mathan Raj included, are permanent and unionized. Mathan Raj has been working there since 1995; however, he told us that the dynamics of the company have changed and that his was the last batch of salaried (i.e. permanent) employees. Now everyone is on contract, underpaid and with few benefits.

Telling us a by-now familiar story, he explained that he works with a hydraulic press machine, which became stuck one day shortly after he had begun work around 5:30pm (he was working the 2nd shift that day). In order to fix it, he first tightened the lock nut, which prevents the machine from depressing, so it can be safely fixed. However, while he was removing the broken component, the lock nut got loosened somehow and the machine depressed suddenly, amputating his right forefinger just below the second knuckle. After getting first aid in the factory clinic, where they applied a bandage and kept his amputated finger in a bag with ice, he was brought directly to Asha. He told us, “I showed the damaged fingers to the doctor. After looking, the doctor said that the fingers had been crushed very completely and all the tissues had been separated—he was just picking them apart, all the cells had died—so he said he would not be able to join them back together. Even if we tried to join, it would be a waste, it would become septic. So it’s better to remove the finger completely from my hand, the doctor advised. They cut a little extra too. They did a surgery.”

This is a relatively uncomplicated surgery, and the doctors at Asha are very well practiced at it; Mathan Raj was only in the hospital for one night (having arrived at the hospital around 7:30 in the evening, he was discharged the next afternoon). He returned to the hospital

every other day for one week for dressing changes. He took a total of 15 days off, paid leave, after which he returned to work.

“Were you afraid,” I asked, “to go back?”

“When I went back, for the first two or three days, I was a little afraid. The manager said to me that I need not work in that same machine. He said I could work in a different machine if I wanted. But I decided to work with the same machine, I didn’t want to put myself down.”

The company covered the full cost of his medical care, including the return visits, which totaled about 40,000 INR (about 620USD). Additionally, he was given 100,000 rupees as compensation a few months after the accident. This came out of a company workman’s compensation policy, which he had not known about beforehand, and which he has not discussed with the other workers saying, “some people might misuse [the policy].” He went on, “If someone gets hurt, it depends upon the value of the finger and they pay for it in the form of a percentage. So at the hospital, the doctors calculate the percentage, and they forward to the workman’s insurance, and the company pays accordingly.” The percentage he’s referring to is the percentage a person is disabled. The doctors have a set way of calculating this, as we’ll see below, and a certain level of disability makes one eligible for government welfare as well. Most of a finger doesn’t rise to the level of disability required to make a claim from the government, but, as he said, the factory compensated him. He was the only person I spoke to who had received any compensation at all from his workplace above and beyond the cost of the medical care.

In some ways, at first glance injury narratives appear somewhat different than illness narratives. There is rarely a long or confusing process of diagnosis, the treatment itself, although it sometimes involves multiple surgeries, is relatively discrete. The treatment is also less abstract;

although the surgeons certainly have access to views and understandings of the patients' body that are not available to the patient themselves (Foucault 1994), resetting a broken bone seems to be less ambiguous than diagnosis or treating, say, atherosclerosis (Mol 2003). So, unlike in Mol's work, the ontological work of making the injury itself hold together as a Thing is less ambiguous. However, two things complicate this picture. First, although the temporality of an injury seems more immediate and more determined, as we'll see throughout the dissertation, the timeline of the injury reverberates out into the future, often for many years and is made sense of through a casting back in time to remember a pre-injury body (Kafer 2013). The discourse around recovery and treatment at the hospital in fact hinges upon imagining and attempting to recreate the function of this "pre-injury" body, particularly as it relates to the ability to perform labor.

Second, although the injury seems more straightforward to diagnose (although that's not always the case as we will see in Chapter 3), a complex array of caring actors is required to perform the work of making the hand "hang together" again in both a literal and an ontological sense. We explore in the next chapter more about how the hand itself is reconstructed on the operating table, but here we turn to the narrative and social work of suturing the trauma of the accident, making sense of it and folding it back into the ordinary, labor which is not always successful.

Mathan Raj's recovery *was* relatively uncomplicated. He returned to work shortly after the injury and when I asked him if he still thinks about the accident, he said no; his wife interjected, jokingly, "We had forgotten all about the accident until you came to ask about it!" Yet, effects of the injury linger. Mathan Raj told us that his hand is still stiff, his fingers don't close fully, and that if something touches the end of his stump, he gets a shooting, prickling pain.

The doctors would confirm that this is nerve pain, and occurs because nerves which were previously buried deep within the finger, are now close to the surface and exposed to more direct stimulation. This shooting pain ought to diminish with time as the nerves adjust and become less sensitive. When he rides his motorbike, the blood pools in the stump and causes him pain. “At that time,” he said, “I just do some massage. If I think about the hand, it hurts more, so I just go about my work. When I get into the workplace, I don’t feel it much because I’m just focusing on the work.”

He told us that he had to practice how to eat and write again. When he went to the bank, he had to explain about the injury and show them his hand before they would accept his signature, since it didn’t look the same as before the injury. This kind of everyday labor, massaging his stump, practicing his signature, is part of the slow work of moving on, of making room for the injury. And it is work that the whole family, not only the injured person, engages in. As his wife said, “It’s ok now. At first, I used to feel a lot, because he wasn’t able to eat properly like before, but now that he’s practiced he can do it.”

Veena Das, Arthur Kleinman, and Cheryl Mattingly all find hope in the ways in which people continue to inhabit the ordinary in difficult circumstances or in the aftermath of violence (Das 2007; Das and Kleinman 2000; Mattingly 2013; 2014). Rather than searching for a way to overcome everyday circumstances, these scholars and their subjects see attempts to reinhabit everyday life as a way of living with hope in the face of domination.<sup>26</sup> My interlocutors’ injury narratives reveal the ways in which the body is constructed in and through social and material

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<sup>26</sup> Das and Kleinman write, “while everyday life is fraught with the potential of danger . . . it is in the institutions of everyday life itself that we find the making of hope” (Das and Kleinman 2000, 10). And Cheryl Mattingly summarizes, “This ‘descent into the ordinary’ speaks to a kind of transcendence, not one that leaves ordinary life behind but tries to move toward it, to inhabit it, to cultivate it. In Arendt’s ‘beginnings’, Das’ ‘second chances’, and my ‘narrative experiments’ and ‘moral laboratories’, we can hear an insistence upon the ordinary as a space in which something new can be created, however fragile and unpredictable its consequences” (Mattingly 2014, 323-324).

relationships. Although the accident is unique and happens to an individual body, it calls up a world of social and material responses to suture the wound. This happens in the hospital itself in a literal way, but the repair and recovery of the limb in question are also dependent upon, call up, and, sometimes call into question, the patient's social world; they are also framed, as we see here in Mathan Raj's story, by material realities.

### Care

Care has a rich history as an object of anthropological inquiry, because it both reflects and constructs social worlds. That is, how we apportion care (who cares for whom, who is deemed worthy of care, and for what) reflects social and political organization, materialities, inequities, and ethics. At the same time, the act of caring itself is how we construct, perform, display, and maintain social roles and relationships. Here, I trace the forms that everyday caring labor, including self-care, takes, both within and beyond the hospital. I examine the complex ways in which care, recovery, and habit articulate with one another. I consider *palakkam*, a Tamil word that translates as *habit*, as an analytic for understanding the importance of habit for both care and recovery.

As in many parts of the world, it is unusual at Asha Hospital for a hospital stay to be a solitary event. "In India it's a huge social event," as one surgeon said. He went on:

See if somebody gets injured, the whole family will be here. They won't be in the room, but they'll be definitely sitting downstairs. Supposing a small kid gets injured, while the operation is going on, probably his mother will be in the temple praying. So social support in India is huge. And surgery is one thing that is very high risk, so you get a lot of social support. Hardly you will see any patient in the whole hospital who will be alone by himself, there'll definitely be two, three attenders with him, till the time he gets discharged.

Just as Padmini's use of the sounds of children in the lane outside as an example of something that might cause distraction indicates a recognition about the ways in which social worlds impinge upon a world of work, so too does the doctor here indicate the many ways in which the world of the hospital is constructed in and through broader social ties. Indeed the hospital designates one (and, in the case of children, two) attenders who are required to stay with the patient at the hospital day and night until discharge. In the case of the people with whom I spoke, this role was most often filled by an immediate family member: if not a spouse, then a parent or sibling. Sometimes, particularly if the patient's family lived some distance from Coimbatore, a local friend or coworker would stay in the hospital with the patient.

"And so what kind of care do they provide?" I asked Dr. Suresh, continuing our conversation above.

"I think mental support. For everybody it's the same thing, if you don't have social support, life becomes difficult. I think, you do surgery, you give him injections or something so that he won't have pain, but if anybody is alone...they'll be looking at the door, [hoping] that somebody should be coming to visit them."

The surgeon here indicates that the kind of care he and the nurses provide is only one point on a much longer continuum, and that dispensing pain pills or performing surgery does only so much to make a person feel better, as compared with ideal social support. Hospital stays can be not only anxiety-filled, but simultaneously quite boring. During rounds or observations, I was often hailed by patients or family members I was passing (particularly if they overheard me speaking Tamil) and asked to sit with them for a little while, to provide some distraction or entertainment to break up the long, monotonous days. These casual, daily conversations were light and simple - we talked about movies, and hometowns, and favorite school subjects. In a

busy, intense hospital like Asha, the surgeons and nurses have little time for small talk; as mentioned in the next chapter, even round visits usually last less than a minute. The work of passing the time and averting boredom, then, falls to the patients' visitors and support networks.

However, attenders also perform a great deal of labor that more directly supports the work of the nurses and surgeons. Family members are taught and expected to help the patient eat, use the bathroom, and wash. This reflects (and creates) both material and social realities. As Julie Livingston's ethnography of a cancer ward in Botswana attests, material scarcity is a determining factor in how care is provided (Livingston 2012). Just as doctors and nurses at Asha are thrifty with surgical materials in the operating theater, the hospital does not have the capacity to pay employees to do the kind of caring labor that they can ask family members to do for free—or at least, at no cost to the hospital; of course the time away from work and home exacts a toll from the attenders who are called upon to perform this labor, in the name of familial obligation. In the wake of these accidents, then, social formations can and do shift to accommodate new demands on the time and labor of certain members. Children are shifted to a grandparent's house so that their mother can be in the hospital with their father. A man takes weeks off work to stay in the hospital with his brother. A granny accompanies her grandson on the long bus rides for his follow-up visits. Beyond assisting with daily aspects of self-care, family members are also brought into and acquire a measure of medical knowledge to help with other tasks, including changing dressings, wound care and cleaning, and recognizing signs of infection.

I asked: "And when they get discharged, do the family members, do they get any training in how to take care of them (the patients)?"

"Yeah. Normally if some people they require dressings every two or three days, or some care is required, we are quite comfortable in teaching the family members on how to dress. See

many of the patients, say a small kid or somebody, their mother or father they'll be dressing them. They do really good dressing, I think they would do dressing better than what we can do, because they'll be doing with uppermost importance."

Here the surgeon indicates not only that they are comfortable having family members perform these tasks but that the love and attention they are likely to give the task means they may well perform it as well as or better than a harried surgeon or nurse during rounds or outpatient hours. In *Notes on Love in a Tamil Family*, Margaret Trawick argues that, for the family she lived with, the sharing of food, and a disregard for conventional separation of bodily substances, was not only acceptable in the presence of love, it was part of creating and fostering that love: "It was not that love was intrinsically impure (*acuttam*) but rather than in the presence of love, conventional purity did not matter...In this household, the defiance of rules of purity conveyed a message of union and equality and was a way of teaching children and onlookers where love was" (Trawick 1990, 104–5).

Of course, Trawick is making an argument in many ways particular to the Brahmin Hindu family she lived with, and such notions cannot be easily or thoughtlessly applied without account for caste. With the exception of one or two Gounders, most of my interlocutors identified themselves as BC, OBC, or SC,<sup>27</sup> and, with the important exception of a few surgeons, I spoke to no Brahmins. However, I think if we take Trawick's argument more broadly, it is easy to see that the care dispensed in the hospital and out is both a form of love and a process of making love happen. The mother feeding her grown son by hand in his hospital bed, the father learning to change his daughter's dressings, and steadfastly wiping blood and pus from her wound, the young man making jokes as he helped his friend back into his clothes: these are

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27. Backward Castes, Other Backward Castes, Scheduled Castes. See the introduction and chapter 1 for a more detailed discussion of caste

everyday moments of embodied caring labor that happen in the hospital and at home. They certainly index and are structured by wider material realities and social contexts, yet the intermingling of bodies in care is also a performative act that indicates social relations even as it solidifies them.

These relations simultaneously construct, uphold, indicate, and, occasionally, trouble, broader power dynamics including, most obviously, gender. Although fathers, brothers, and male friends and coworkers are fixtures in the wards, the bulk of this kind of unremunerated caring labor is performed by female relatives. I turn to the concept of bioavailability to think about this gendered division of labor, and the ways in which it assumes certain other kinds of bodily availability.

Selvaraj lives in Uthukuli, a rural area about an hour and a half southwest of Coimbatore. He is unmarried and lives with his elderly mother on 6 acres of land in his family's ancestral village. One year before Jisha and I met him, he had lost the pointer, middle, and ring finger on his right hand in an accident at a plastic recycling factory which he had opened with a friend. While he was feeding a group of plastic cement bags into a machine to be melted down, his hand got tangled in the bag straps and "sucked into" the machine. There was no way to salvage his fingers from the machine and, to cover the large wound on his hand, the surgeons at Asha stitched his hand into a sort of "pocket" at his waist—a common method for helping a flap of skin take. He stayed in the hospital for four days and then was discharged. His cousin stayed with him at the hospital and then came along with his wife to take care of Selvaraj at home. After three weeks Selvaraj returned to Asha to have the flap cut away from his waist and sutured. Because he is unmarried, and his mother too elderly to work, his brother and brother's family, and other relatives rotated care for him while he rested for three months after the accident. His

relatives helped him cover the 150,000 INR that the initial surgery, hospital stay, and follow-up visits cost him, and he is in the process of paying them back. Meanwhile, he also sold off the recycling company, and now gets by on the small income from his land where he grows cotton for sale and vegetables for his household. He can do some work on the land (“40 percent I can do”) with his left hand and the thumb and pinky finger that remain on his right (“though I have lost most of my strength in that hand”) and hires day laborers to help with some of the heavier agricultural work.

He tries not to think too much about the accident. “Sometimes I think about it, but I don’t feel too much. If I think about it too much, I won’t be able to do my work. I don’t make a big thing of it.” As we’ll see in the next chapter, Dr. Manoj’s will assert that “as long as he has two fingers, I would still go about reconstructing.” Selvaraj is an example of just such a case; he has one thumb and one finger left and they “look at each other,” per Dr. Srinivasan. Selvaraj practices and makes do with the function that is left to him; he eats with his left hand and although he can still hold a pen with his thumb and pinky finger, it is tiring, and his penmanship is messier than it used to be.

As we were packing up to leave after interviewing him, his mother, who had been resting on a charpoy nearby and occasionally chiming in during the interview, turned to Jisha and me and asked quietly in Tamil: *Is it possible to take the fingers from my hand and attach them to his?* Her poignant question points to the literal intertwining of bodies in caring relationships, as she offers to replace his lost body parts with hers. It also indexes the way that notions of gender, age, and ability/capacity are valued. This offer of a sacrificial act of love by a mother reinforces commonsense notions of age, ability, and gender and shows, again, that notions and practices of care and violence are not at odds, but rather work in and through each other. A mother cares for

her son by sacrificing her own body, and that is how both gendered power imbalances and loving social relationships are maintained. It's not that a mother cares for her children in spite of the demand to sacrifice her body for them, it's that this caring relationship is articulated (in part) in the language of sacrifice (Ram 2013). Important newer work on social reproduction theory considers the vast ecosystem that (re)produces the worker, including education, transportation, healthcare, and other fields beyond the family (Bhattacharya 2017), yet Selvaraj's mother's question indicates the minute, intimate way this reproduction happens within the family, on a daily basis, as she offers to replace her son's lost body parts with hers. My interlocutors theorized carefully about the messy, complex overlap between their own productive and reproductive labor, articulated often in the language of love and care, in the obligation to sacrifice oneself for the benefit of the next generation. When they mourned the effects of the injury, it was most often its impact on the ability to perform culturally-expected, locally-specific, gendered forms of reproductive labor.



Figure 10: Care and work

In this photo, taken by my husband, we see the way that care and work enable one another. In the foreground, Selvaraj’s mother is holding Wesley, at this point just over a year old, she’s handed him her fan to play with, leaving me free to conduct the interview with Jisha in the background, and Matt free to document this moment. Wesley’s frequent presence at many of these interviews and encounters illustrated and emphasized, for me, the social care that all work depends upon. And, whether or not he was physically there, his constant presence in the back of my mind, not to mention the ache in my shoulders from carrying him, illustrated the mental and physical space care demands. My identity as a mother also allowed people to slot me into an easily recognizable and translatable social role, and one that meant I would instinctively understand the kinds of care work they were telling me about (“we are women, we need two hands to do the work,” Indra will say later in this chapter, using the inclusive form of “we,” *naam*, நாடம் which includes the listener and speaker together — “we (you and I) are women”).

But Wesley was also undeniably a source of joy and delight in these encounters, frequently scooped up, doted upon, introduced to puppies, baby goats, other children. I foreground the care work that enables and produces labor, but at the same time highlight the physical, embodied, and intimate experience of giving and receiving care itself. Care might enable other forms of work, but it also exceeds them, producing not only space, time, and a body refreshed for labor, but social bonds, relations, and connection as well. There's something about the physicality of care, the intermingling of bodies, particularly hands, at play in this photo too, her hands wrapped around his belly to keep him steady. Work is an embodied endeavor that extracts a toll, so too is care, and the physical intermingling of bodies in caring relations is how social relations, including those of inequality, are solidified and made evident.

### Care and/as Habit

Care has been taken by medical anthropologists as a wide range of practices which both reveal and shape broader social, material, and historical systems. The surgery reveals particular technologies of care—those that repair and reshape the injured body. The treatment of an accident ties to the global flows of medical knowledge and technologies, and to local histories. Medical technologies always articulate with cultural and political ideologies (Taylor 2003). The same is true for broader forms of caring labor as well. Much of the care that takes the form of rehabilitation and recovery in the wake of a workplace accident is not done in a hospital setting, but at home, as well as in the outpatient clinic and physiotherapy department. The expansion of the notion of care to include not only the surgeons and nurses, but extended family and community, as well as alterations in diet, sleep, and activity is important to understand the ramifications of the accident. Care, even as it reveals social roles, can also alter them (Mol, Moser, and Pols 2010). An accident or illness may upend typical social roles and everyday

responsibilities and the negotiations and adjustments (temporary or permanent) people make to accommodate these new realities can be transformative. The goals of this rehabilitation vary in different settings, in interesting and revealing ways. What does it mean to heal an injured body? At what point is the body considered healed?

In Seth Messinger's work with injured US veterans, he writes that the focus of the care and rehabilitation treatments is largely on returning to a "pre-injury" level of functionality, and that "the emphasis on physical functioning has a silencing effect on other ways of knowing and other modes of recovery, thus producing their own forms of suffering," (Messinger 2010, 299). Likewise at Asha Hospital the emphasis in the physiotherapy and occupational health departments, as well as amongst the surgeons, is on return to a "pre-injury" level of function, and this is primarily framed in terms of an ability to return to work. In Asha Hospital's 2010-2012 Activity Report, one of the many patients highlighted is K. Perumal, whose thumb was amputated by a saw. After microsurgical reconstruction, he went "back to his work again and his co-workers hardly believe that the accident ever happened." This brief narrative reveals the accident as a rupture, which alters everyday relations of labor, and the surgical intervention as an attempt to restore normalcy. Yet it is frequently the inability to participate in forms of caring and reproductive labor that bothers patients most in the wake of an injury.

Felicity Aulino, in her ethnography of care in Northern Thailand, uses habit and habituated actions to move us beyond theorizing care which as dependent upon an internal orientation and a particular moral intention.<sup>28</sup> She argues, following Das, that everyday, ordinary

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<sup>28</sup> I came to see that religious, social, and political structures are embodied (and continually resubstantiated) in habituated practices of providing for others. 'Caring,' rather than being a universal orientation, comprises culturally contingent sets of emotional and practical ways of being with people. An examination of these practices reveals specific historical lineages to each, proving an inseparable link between forms of social organization and forms of care" (Aulino 2019, 9).

actions reflect and comprise social relations, regardless of intention and perhaps more than self-conscious or extraordinary moments of care and entanglement. She is referring to caring for someone else, rather than self-care, but, as I show below, the development and deployment of new kinds of embodied habits, as well as the inability to perform old, habituated actions, were a significant medium through which people thought about and discussed their recovery, however incomplete.

As Ram argues, conscious reflection on a habituated action is an interruption, which makes visible the usually seamless flow of activity (Ram 2013, 176). This is a useful concept both in thinking through the accident as an interruption in the workmanlike (Merleau-Ponty 2007) flow of working with a machine, and in thinking about the process of recovery—as an attempt, rarely complete, to return to being able to go about one’s everyday activities without conscious reflection. As with other forms of trauma, the physical injury can (for some, sometimes) be forgotten, but eventually it intrudes again. Sujatha spoke about the surprise, even years later, of looking down in the middle of a task, and seeing her missing finger. Indira talks about the constant intrusion of the injury, of waking in the morning to a new dismay every day. The injury and its lingering effects are insistent, and even for a minor injury, rarely seem to disappear completely. There is a remaining sense of loss. When asked what had changed, most people said they had lost strength, or stability. As Mathan Raj said, “I’m not able to balance with that hand.”

Many social theorists have written about the way that the healthy body recedes into the background, but that the body in crisis, in pain or illness, becomes newly and insistently present for the subject (Leder 1990; Canguilhem 1991). Manderson argues that this is something of an oversimplification; it’s not that we are unaware of our bodies when they are functioning

“normally,” but rather that we interact with and live in them all the time, and so become attuned and habituated to them at a much deeper level.<sup>29</sup> Yet, she goes on to argue, those changes in bodily form may provoke changes or crisis in one’s sense of self as well, both because of a sensation of inner dissonance (of becoming a stranger to oneself) as well as because of the way that one’s condition is perceived and judged socially.

As people recounted these stories, they slipped between discussing their own embodied experience of the accident and the systemic forces that structure this experience. This is maybe an obvious point but one that bears repeating: these scales of experiences are not separable, they interpenetrate and are lived in the same moments — systems of violence, discrimination, and support are felt in the body and are integrated into one’s own life history simultaneously with particular moments, here, the accident itself. Lock and Scheper-Hughes, in their seminal piece on bringing the body back into anthropology as an object and subject of study, discuss the “three bodies” — the individual body, the symbolic body, and the political body (Scheper-Hughes and Lock 1987). They argue that these three are inseparable, merely different ways of looking at the same phenomenon, and anthropologists since then have largely worked to integrate these approaches.

### Indira

Indira lives in Kalapatti, just a few kilometers north of the Coimbatore airport, on the outskirts of town in a small rented house with her husband and niece. She is from Tiruchirappalli (usually called Trichy), a town about four hours east of Coimbatore. She and her husband moved

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<sup>29</sup> “We experience our bodies and so embody ways of experiencing the world. While dysfunction or dys-appearance can lead to hyperawareness – pain can be overwhelming – changes in affectivity, motility or proprioception rapidly become a normal part of the normal body” (28).

from Trichy to Coimbatore ten years ago to work and support their three children, who live in Trichy with their grandparents. They have two daughters, one recently married, one in twelfth standard, and a son, now in tenth. She and her husband both worked in informal construction; he is a maistry (foreman), and she was a day-laborer.

Almost two years before I met her, while working at a construction site in Coimbatore, Indira lost her left arm to the shoulder in a cement mixer. It was the end of the day, she was cleaning the outside of a large cement roller when the shoulder pleats of her sari got tangled into the gears on the outside of the machine. “While cleaning, the machine will usually be on, otherwise it’s not possible to clean it properly. Only after my arm was gone (*kai poona piragu*), they switched off the machine. I’ve been doing this work for the past ten years, so I have the experience to do it,” Indira added. “For many years I was doing the same work, I didn’t know this would happen. I wasn’t afraid to do this work, I didn’t have any fear. I just did it.”

After her sari got tangled in the gears, her hand slipped, following the rolling motion of the machine, went inside, and was torn off.

“The sari got caught, my hand...but no one realized (*yaarukkumee teriyala*). All around me, people were working. But I myself cried out. (*naanee sound pootteen*). *Aiyoo pooicchu kai pooicchu kathana paaru*. (my arm is gone, I shouted, see). At once, they took me. After they moved me, the arm fell down.”

Someone ran to fetch her husband, who was working in another part of the same site, an ambulance was called and they rushed to Asha. She told us her husband said, “we need not go to the government hospital, we’ll go straight to Asha, however much it costs is fine, I don’t want to go to any other hospital. I’ll spend money for her. The owner said, it is your wife, you have to save your wife, so you can take her as you wish.” She described a sense of numbness in the

immediate wake of the injury—she could see and hear but she couldn't feel anything or move her body, and she was vaguely aware of her arm lying next to her in the ambulance.

“What happened when you arrived at the hospital?” I asked.

She said, “They kept the fractured arm nearby and took a photo. My husband said to the doctor, ‘I will do anything for her... please just fix her hand as it was earlier.’ But after analyzing, the doctor said that, because the arm fell down into the water, after getting cut, all the cells had died (*cells ellamee cettthupooirichu*)...So we can't do anything, the doctor said. They got a signature from my husband. They gave me an injection for the pain. I just remember them giving the injection, after that it became numb.”

She had an operation to clean and shorten the stump; when she woke up it was 4:30 in the morning; she was in the ICU but begged to be sent to a room so she could see her children who had arrived from Trichy.<sup>30</sup> After a few hours, the doctors agreed. Three days later she had a second operation to cover the stump with a graft from her thigh. After ten days in the hospital, she was discharged. The construction company contractor gave her 100,000 rupees, which did not quite cover all the medical expenses. That covered the main hospital stay, but none of the follow-up. They took a debt from a local financier, which they still are trying to pay back.

I want to note here the ways in which her story articulates with broader sociopolitical structures including occupational health laws and gendered notions of work. Indira, an informally employed construction worker, working different jobs day to day, is not the worker assumed by and protected under the Factories Act, which includes a sub-clause on “Dangerous Machines,” in which women are expressly forbidden from working with dangerous machines. The notion of the sari getting caught is nearly a motif in Indian films and novels, a shorthand for

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<sup>30</sup> Visitors are not allowed in the ICU.

the embodied dangers faced by women in public or in the workplace. Her femininity, including here, the absence of “tight-fitting clothing” marks her as both unsuited for work with dangerous machines, especially machines in motion, and at particular risk from them. This unsuitability, however, doesn’t protect her, or millions of others, from engaging in this work, yet it prevents her from being able to make claims about her rights as a worker. Part of what these laws do, I argue, rather than actually protecting people from bodily harm, is restrict access to higher paying, prestigious machine work to men, and, in so doing, reinforce common sense gendered notions of bodily capacity. These laws produce not only risk, but differentially valued risk. Work that is recognizably, legislatively “dangerous” is qualitatively and quantitatively different than “risky work,” and the way various forms of risk are evaluated is gendered. I return to the question of labor laws and liability in Chapter 5, here I want to consider what Indira’s story tells us about care and habit.

### Paḷakkam

Nearly all of my interlocutors discussed the importance of habit, practice, and adjustment (three words that are encapsulated in the Tamil word paḷakkam) in the course of their recovery. I take up this concept here to explore the ways in which people learned to reinhabit their changed bodies or, conversely, were unable to adjust to them. One of the most commonly articulated post-injury experiences was that of unthinkingly attempting to do something habitual, only to be reminded that the body, having changed, was no longer capable of doing that thing in the same way (whether it was reaching for a spoon, getting dressed, riding a motorbike). The Tamil concept of பழக்கம், transliterated as paḷakkam (or pazhagam), translates as “habit” or “custom,” but in its verb form, can also mean “to practice” or “to adjust to.” The notion appears

in Margaret Trawick's *Notes on Love in a Tamil Family* (1990), and Kalpana Ram's more recent *Fertile Disorder: Spirit Possession and Its Provocation of the Modern* (2013). Each author takes up the concept in a slightly different way, and for a different purpose. It was also the word that my interlocutors used most frequently when discussing their recoveries and the way that they adjusted to, or were unable to adjust to, the injury.

Trawick writes about paḷakkam in relation to love, to the Tamil concept of anpu (அன்பு). She writes, "Love, or attachment, or a sense of oneness with a person or thing or activity, grows slowly, by habituation....what you looked like and what you did shows to others what your paRakkam was, and hence, what you were" (Trawick 1990, 97–98). Trawick is interested in the daily practices and acts that create and consolidate love and familial relations. Habit, and the slow adjustment of people to one another over time is part of how, for the family she lived with, love grew and was made to grow. Love, though, is not the only thing that grows over time through habit and practice. As we saw in Mathan Raj's story, the aftermath of his injury was full of small acts of practice to make space for and adjust to his newly shortened finger — massaging it, practicing his signature, learning to eat again. The word he used for these acts was paḷakkam, but in the verb form, "*methuvaaka pazhagiyrriichu;*" *slowly I adjusted.*

The concept of paḷakkam articulates with temporality. A person may have a tendency towards certain habits, but these habits are changeable and, importantly, shift and adjust over time with the introduction of new information, people, experiences, and situations. One of my interlocutors explained it by comparing it to the way a person's palate changes over time — at first when you try a new food, you might not like it. But if you try it again and again, slowly you start to like it, and eventually it becomes something you are accustomed to eating, a part of you. Ram emphasizes the temporal aspect of paḷakkam as well; she writes about spirit possession as a

slow practice of adjusting, over time, to the presence of the goddess.<sup>31</sup> This temporal nature is important for Ram, and the process of getting used to, of developing a taste for, of accommodating offers an alternative conception of agency beyond the dichotomy of the woman either choosing the possession as an active strategy (and therefore, as in some way, false) or the possession being something completely beyond her control (Ram 2013, 144–45). Ram, alongside other feminist scholars of the body, rereads bodily agency, in thinking of the body as neither passive vessel of experience nor active, fully controlled subject. She argues that the accommodation made by these women over time demonstrates a kind of agency “that is more useful, illuminating a much broader range of circumstances in women’s lives as they negotiate the demands of multiple roles and responsibilities as wives, mothers, and family members, as well as breadwinners in the wider economy” (Ram 2013, 148).

Paḷakkam here illustrates the triangulation between the body, time, and adjustment in the process of recovery. This helps us think about recovery as something that remains unfinished, and as something that is made up of small, everyday practices, a slow process of making space for (Das 2007). Paḷakkam also helps to clarify the changed relationship people who had been injured had to their own bodies. It is one thing to know that one no longer has two fingers on their right hand, it is another, as I was frequently told, to retrain the body to reach for a spoon in a new way that accommodates that change. This aligns too with Ram’s argument about bodily agency: the body is neither a vessel that simply does what it is told, nor is it a fully controlled and active subject; the body has its own memory and habits, it can be willful, and adjustment is not always achievable. Lenore Manderson’s book *Surface Tensions* takes up many of these

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<sup>31</sup> She takes up the stories of women who not only are possessed but cultivate this possession, transforming themselves into mediums who have the power to heal. She uses the term paḷakkam as an analytic to indicate the way that these women became mediums—not through formal apprenticeship, but rather through a slow process of habituation, of getting used to the spirits, and of them getting used to the woman’s body.

questions as it explores post-operative bodies, bodily boundaries, disability, and subjectivity. She writes, “People [who have had body-altering surgery or disease] must learn again to use their bodies, resume interrupted activities and/or take up other activities deemed equivalent...Return from sickness to normality occurs through social action and interaction, not through the fading of pathology or the repair of tissue alone” (Manderson 2011, 95). She goes on:

In rehabilitation, patients are encouraged to pick up their lives as they were before the interruption with injury or illness, or, with longstanding illness or deterioration, as they might have been. This task can be daunting in the imagination and literally. The body must learn a new language. Individual identity or sense of self is grounded in action, not only in relation to specific activities, interactions and occupation, but also to changes in habitus and social practice; people must first reconcile to the disruptions that have occurred in these fields. With amputation, or with the loss of the function of a limb or limbs as occurs with stroke or neuropathy, the discrepancies between surface and self are stark. What is it like suddenly to lose a limb or to lose the ability to move it, and to discover, later, that the body has now made its own history? How is it – as a result of a vehicle or work accident, a misplaced step, a minor infection that failed to heal, a hidden tumor, or a loss of consciousness barely recalled – that the body’s surface can change so quickly and irrevocably? And after the self-centered excitement of the hospital and day visits for rehabilitation, once the basic techniques of prostheses and aids are learned, how do people reclaim and reshape their lives with a body or bodily parts that are often read as a signal of presumed essential change? (96).

Sujatha works in a small workshop owned by a neighbor, where she uses a mechanical press machine to make steel clamps for Texmo. She was injured a few years before I met her when her fingers were caught in the machine, and she lost half of her right pointer finger. They couldn’t reattach it because it was crushed completely (“like jam”).

Even though it’s been years, I still feel it,” she told us. “If I pick something up, it won’t stay in my hand, it falls down. I struggle to do my household work, because there is no grip in my hand. I have one daughter, and I don’t want people look at us and pity us and say something bad. There’s no other feeling, I want to live my life, so for that I have to go to work. I shouldn’t depend on anyone. Still I need a stronger grip. That’s all. I don’t say that in my workplace. They’ll misunderstand, so I don’t talk about it. Even if I do the household work, if I hold

something, I feel like it will fall down. But when I'm working in the machine, I don't feel that my finger is missing, I can do the work. I do it correctly.”



*Figure 11: Sujatha at her machine*

Interestingly, Sujatha highlighted throughout our conversation that her injury bothers her least when she is at work. When she is at the machine, she is able to focus and work without thinking about it. It is in the private spheres, in the realms of caring and reproductive labor, that she has the most trouble adjusting to the injury. She told us, crying, that she was no longer able to string jasmine flowers garlands for her daughters' hair. Jasmine garlands are a traditional part of a Tamil woman's attire—they are a symbol of good fortune, but also index femininity, sensuality, and elegance. Although you can buy them on many street corners, the practice of

stringing them for one's own daughter, as Sujatha expresses here, is a daily expression of love that both forges the bond between mother and daughter and indicates publicly that her daughter is kept and cared for.

“Usually in Tamil tradition, we keep flowers for our daughters to wear. But now, I'm not able to tie up the flowers anymore. I was practicing with the paper and the leaves, practicing tying them up like flowers with the wounded hand. I tried little by little. After the injury, I was also trying to put the kolam, but the important finger for putting kolam is my wounded one. But I was trying. I took the flour and I tried. I was trying to do all the works, even if that finger won't come closer, I'll try joining the finger to do that work. Like that. I practiced. Nothing else.”



Figure 12: Kolam from around my neighborhood in Coimbatore

Similarly, kolam (figure 12) are the rice flour designs that adorn the doorsteps of most Hindu Tamil households; they are an art form typically performed by women, early in the morning, as both a symbol for welcoming prosperity into the household, as well as a practice that indicates a certain kind of social decorousness. And, in the wake of an accident, the delicate motions of the hand are often irretrievable; “a prosthetic are not going to give you this” Dr. Latha told me, tapping each finger to her thumb in turn. And yet, of course, a reconstructed hand is not the same either, and pain, stiffness, scar tissue, weakness, and immobility were lingering effects that all patients I spoke to complained of to some extent. Or, as Sujatha said, “The injured finger won’t come near to the other fingers when I pick something up; it falls down.” Sujatha articulated much of what Manderson said above – the difficulty of training her body in new habits, the pain of being stigmatized for her injury. “If I go somewhere out, I feel some pain because I used to do the things very neatly. Even if I go in the bus, people notice me, and if I give something to someone, we have to give it in this (right) hand, so at that time I feel very bad. But I’m thinking that only this much has happened to me, not a big injury, so I am happy for that.”

This slow process of adjustment is also subject to failure. To return to Indira’s story, after losing her arm she finds it impossible to either return to her old habits or to adjust to her new body. Here I think anthropological work on how people approach trauma from the side, as it were, speak about it obliquely and so, as Veena Das says, engage in the slow work of descending into the ordinary (2007), does not help us understand Indira very well. She cannot approach the injury from the side; it doesn’t bubble up from time to time like Mathan Raj’s, becoming sore or achy after time on a motorbike, rather, it is insistent, constant, and cannot be set aside or briefly forgotten. Nor can she engage in the small acts of self-care like Mathan Raj and Sujatha, that

help her learn to re-inhabit her body, however slowly. Her daughter and sister came to take care of her at first, but a year or so later her daughter got married and moved away, and Indira's niece came to take care of her instead. Her niece has a BA but isn't looking for work outside because, as she said, "Enough work is here in the home, how can I go outside for work?" Here we have a simple example of the shifting care chains that perform this generative labor, women moving around to perform various kinds of caring labor. At first, her daughter came to care for Indira, but later that obligation was superseded by her need to go live with (and care for, presumably) her husband. Another young female relative stepped in, foregoing the possibility of performing other kinds of labor. As we will see in chapter 4, the demands of reproductive labor not only occlude women's participation in waged labor but also justify limits to their power and payrate in the workplace.

Indira suffers from intense pain across her chest and shoulders, and in her missing limb as well, "I feel as though my hand is there, and the pain is remaining in it. The pain is very difficult to bear," she said. She massages her shoulders, but the symptoms don't decrease. Pointing at her shoulder, chest, neck, she said "pain, pain, pain. For bathing even I need help from her. I can't do any work at all. If even the half arm was there, I could do something, but nothing is there, so what can I do? I can only put on a nightie. I can't comb my hair. I am not able to wash my plate after eating."

For the first year after the accident, she didn't go out at all, she said; she sat at home crying. She developed severe headaches and eventually had to go to the doctor because of them. The doctors did a scan and told her, "There is no problem in your head. Because of the shock (அதிர்ச்சி, *adirchi*), that pain remains, that's what the doctors said. The headache comes once the tears start from my eyes, and if I think something deeply, the headache will start."

She also spoke to the ways in which the injury and the post-injury experiences are constructed in relation to other people: “If I go to a function, there will be a big crowd, and everyone will be noticing me, and at that time I feel bad. The only person who will feel it is me, no one else. Even if I walk in the road, everyone will be noticing me and looking at me.” The felt stigma of apparent disability was a factor commonly noted in recovery narratives; worries about what others might think are substantiated in prevalent discrimination against people with disabilities. One young man I spoke to explained his difficulty in making marriage arrangements because potential partners and their families did not believe that his injury was due to a workplace accident, and thought instead it was evidence of a different kind of (extralegal) violence. These accidents and their recoveries are forged out of and in relation to ongoing material and social realities; people tried to fold them back in to the narrative of their lives, the young man brought his hospital charts with him to meet potential in-laws, material evidence of the etiology of his injury, but they bump up against stigma, social perceptions, and materialities. He admitted to us to feeling a bit hopeless about his marriage prospects, Jisha consoled him by saying, “don’t worry, some girl will believe you, that’s how you’ll know she’s right for you.” As the narratives of people’s lives continue on, the material and social significance of injury also become a way to articulate and create other relationships.

One day in the OPD break room, while Dr. Srinivasan sat filling in billing details (chapter 3), a registrar popped his head in the door to ask what percentage of disability it is if someone has an above-knee amputation. Dr. Srinivasan paused, thinking, rubbed his face and said, “90%, I think.” He and the other doctors spoke briefly about the meaning of disability in this context, “It’s dependent on their ability to do work. So a double leg amputation, or a single arm, is 100%.”

“Ok,” said the registrar, nodding. “In your opinion, what caused the disability?” he asked, reading off the government form he was filling out for a patient who had come in for this purpose.

“Trauma, accident,” said Dr. Srinivasan.

“What is the nature of the disability?”

“Permanent.”

Bodies are made and given meaning in relation to systems of power, and our emphasis on productivity, function, and normative form are produced and reinforced through policy, ideology, and the built environment. Of course, changed bodies come up against not only individual’s and family member’s own perception of them, but also against societal norms, political structures, and historical constructs. While the following chapter investigates the relationship between disability, function, and temporality, here I have turned towards an exploration of the embodied experience of injury and disability. The injury is also of course inflected in other social, political, historical, and economic categories; Indira highlighted directly the way that gender inflects with bodily expectations in the wake of an injury: “There was a neighbor who also got injured, I don’t know about the incident or where he went for treatment. But anyway, it is easier for men: they have no household work, they don’t need to tie their hair. We are ladies, we need two hands to do the work.”

I spoke to a social worker at the hospital about Indira (without using her name or giving details of her case) and he told me she would certainly be eligible for welfare from the government. The loss of an entire arm is considered 100% disability by the Indian state, as Dr. Srinivasan indicated. The hospital has an office of social workers whose job it is to guide people through the process of making these claims, which can be a lengthy bureaucratic hassle. Jisha

and I called Indira back several times, urging her to come back to the hospital to meet with them; I offered to send a car for her, but she never came. My desire to inculcate her back into governmental and hospital-based regimes of care, compensation, and bureaucracy was itself a small effort to suture the unsutureable, and her refusal to engage is perhaps a critique of these structures (McGranahan 2016), a willful political stance to live otherwise (Simpson 2014), or, maybe, a simpler matter of exhaustion and disillusionment and stigma. I cannot claim it as redemptive (Povinelli 2006); its ambiguity, and her pain, continue to trouble me and I leave them open, here.

Cheryl Mattingly draws on Veena Das to argue the importance of problematizing dominant moral narratives that praise the triumphant, the transcendent. Particularly in the face of hardship and poverty, “ordinary routines are not the daily expression of a habitual way of life culturally inherited so much as a fragile achievement, a hard-won moment of mundaneness. Under such circumstances, the ordinary is freighted with a special moral weight and it can acquire an unexpected symbolic density” (Mattingly 2014, 323). We see this here too, in Indira’s story, in Sujatha’s when she told me she could no longer string jasmine garlands for her daughter, in Kannan (Chapter 1) who, although his hand doesn’t hurt and is rarely stiff, finds himself replaying the accident in his mind when he is at work.

#### Conclusion: Fear and going back to work

One of the things that consistently surprised me during my research was the fact that, with a few significant exceptions (see Chapter 5), nearly all of my interlocutors who were physically able to return to work did so at the same company, and usually with the same machine. As one person said, “At first I was a little afraid...I was hesitant (*thaykam*) to go back to that work again, but later I got used to it (*pazhagiyiruchu*).” Most reported similar feelings of

trepidation upon returning but, as Mathan Raj said, “I didn’t want to put myself down.” Of course the desire to return to the same job is also often a necessity; the material risks to the family of lost income are substantial. It is also possible to read these questions of fear and the ways in which people took responsibility for their own accidents as a means of reasserting agency in the workplace. People’s discussions of fear and loss in the wake of the injury recall the discussion about *palakkam*. There was a sense that although fear, or “feelings” may linger, particularly when a person thinks about the accident, and particularly in the early months of recovery, these fade over time. Furthermore, fear itself is seen as an important impediment to work, and one which may make the work itself more dangerous.

“So at first [when you went back to work] they just give you small work?”

“Yes. We should not be afraid to work in the machine, we have to get over that fear, otherwise will we be able to run that machine? We can only work without fear.”

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“When you came back, how did you feel? Did you work with the same machine?”

“I didn’t work with that same machine, because I was a little bit afraid for one month or so. Again maybe it would happen, I was thinking. And after that I would do small small works in that same machine, and after I came to realize, the rest of the work should be done fully by me alone, so I continued to do all the work regularly, in that same machine. So now I am doing all the work.”

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“How long did you take rest in home?”

“2 months, 40 days.”

“And then you went back to the same work?”

“Yes, for the same company, the same work.”

“Did you feel afraid while working in that machine?”

“If we remain afraid, we will not be able to do that work.”

Other than Padmini, (Chapter 1) only two people reported a significant adjustment on the part of the company to adjust for the cause of the accident. Sankar, who we also met briefly in Chapter 1, works as a machine repairman at Texmo, a large pump manufacturer. When we asked him if he was afraid when he returned to work after the injury he told us, “No. Hereafter, no one should work carelessly. Additionally, from then on, they put a safety guard in that machine. They changed the system to a new system. No one should have to do what I did. Accidentally injuries happen, when each incident happens, the only thing Texmo says is, ‘safety is first.’ Safety only first. For that safety, what all is needed, they do that for us. They will ask what additional things are needed for your safety, and they’ll do that for us. So in doing that, they show the utmost care for us.” Another man who worked as a manager at a parastatal cement company just over the state border in Kerala tripped and put his hand into a machine-cooling fan. He lost most of his index finger; the company had a reporting procedure and, afterwards, all such fans were fitted with guards. Other, more informal forms of adjustment were somewhat more common:

“How did you feel when you came back to work after the accident, were you afraid?”

“I didn’t have that fear to work, but I don’t get into the machine anymore. The boss doesn’t allow me to get inside. Instead of that work, I do other works.”

“Do you think about the accident?”

“No, I don’t think about it often. But if I go to temple, I shouldn’t wear my chappals, so at that time I feel it. Because I can’t walk well without my chappals. Other than that, there’s no trouble.”

This slippage, between difficulties faced and work and those in the private sphere, which were often felt more acutely, was very common. This again, reveals the way in which the injury ramifies out into multiple, overlapping spheres; in spite of the focus in the hospital and recovery phase on “work,” it is other forms of care and caring labor that people tended to miss and mourn more, as we saw when Ayyappan reflected on his inability to pick up and comfort his young daughter. The importance, again, of practicing and adjusting, at home and at work, was a way to both overcome fear and trepidation as well as to literally retrain the body.

The accident also offers a space from which to explore a more complex understanding of care under neoliberalism (Muehlebach 2012). In the case explored here, rather than being abandoned after an accident, at least some injured workers are cared for. This points to the ways in which, following Muehlebach, Ferguson, Povinelli, and others, structures and techniques of caring and inclusion are not necessarily eliminated under the influence of neoliberal ideas of market rule, rather they are transformed, and, for Ferguson, this leads to the question of whether these techniques, these neoliberal arts of governance can be used for progressive political ends ((Muehlebach 2012; Ferguson 2010; Povinelli 2011; Bear et al. 2015). In the following chapter, we turn to the ways in which these accidents are treated at the hospital, what that reveals about the interpenetration of hospital-based forms of care, capitalist demands of productivity, and the way the body is made and unmade in the service of work and care.

## Chapter Three

### Reconstructing class: form, function, and productivity at the hospital

*In March 2017 one day in trauma review a junior surgeon presented a case that had arrived a few days previously: a 45-year-old man had fallen at work and cut his wrist on some glass fabrications. He presented with his wrist having been neatly sutured closed in Conoor. Yet, although the wound looked neat, he had no pulse in his fingers; the surgeons opened his wrist back up to find extensive nerve, artery, and tendon damage. Dr. Subramaniam, hearing this, said, “You always have to check. If they’ve been sent here, it’s for a reason.”*

#### Introduction

In this chapter we arrive at the hospital. The hospital is separated from the busy street it sits on by a long and narrow driveway. The mouth of the driveway is crowded with vegetable, fruit, and coffee stands, and, just to the side of it, in front of the hospital, is a small and cramped

market. You grab that day's newspaper from a vendor and begin walking down the driveway, passing an ATM booth on your right – someone is nearly always drawing money out and, in fact, relative to many of the ATMs in Coimbatore, this one fairly reliably has cash in it and is in working order. You continue down the drive, being sure to stay far over to one side to leave space for cars and autos to squeeze by, wave and smile at Mani, the guard, who asks if you've had your breakfast. There are guards at both doors, too; you head to the side door, next to the canteen, walk past a small shrine on your left, and the doors to the Casualty (Emergency) Ward on your right.

I first came to this hospital for the same reason that many of the patients and doctors do—because of its reputation. Asha is known as a preeminent center for reconstructive plastic surgery, particularly for hand surgery, microsurgery, and replantation. The reputation of this hospital reaches out into the world, brings patients in from a 200-kilometer radius for first-order surgeries, and sees patients from all over the world for follow-up surgeries. Like the patient in the epigraph, some have had some care on the way but been sent on in the hopes that the surgeons and resources at Asha may be better equipped to manage a complex trauma. As Dr. Srinivasan, one of the senior surgeons I knew best, told me, “Anyone within a 300 km radius who is told they need an amputation will say, let's try at Asha and see what they say.” Doctors, too, from all over India compete for prestigious residencies here, and many foreign surgeons come for weeklong stints to observe the senior surgeons, their unique caseload, and to take part in the microsurgery course that is offered nearly every other week in the basement, where surgical residents and fellows from all over the world practice microsurgical techniques on rats. There are also foreign surgeons here doing yearlong fellowships.

The purpose of this chapter is to examine the contours and contexts of the hospital itself and to ask, broadly, what is it that plastic surgery does? Building on the preceding chapter, I explore some of the technical details of reconstructive plastic surgery itself, explaining the basic objectives of many of these surgeries and the kinds of technical and embodied work, attention, expertise, and luck that are required to achieve them. I show that the gaze of the doctors is tuned into very small, detailed minutiae, narrowing the body of their patients into individual tendons, nerves, skin cells. Injured body parts may be observed in different ways or at different levels — by x-ray, MRI, by palpating, by cutting open, or through a microscope—I read these practices as ones of narrowing or focusing the visible, or of surfacing the interior (Taylor 2005). I counterpose this with stories about the ways in which the surgeons simultaneously expand the worlds of their patients, connecting injuries and recoveries to the patients’ broader lived experience and to local and historical systems as well. In particular I show that the (doctor’s understanding of the) patient’s class position and future livelihood are significant in the course of treatment. Just as it repairs and sutures tendons and tissues, plastic surgery reconstructs notions of class, as well. I conclude by considering the ways in which the contested notions of bodily productivity that are so important on the operating table seem to reinscribe normative ideas of what bodily productivity means and looks like, but at the same time serve to expand notions of the “normal.”

#### A potted history of plastic surgery

Plastic surgery has a long and somewhat fraught history. Records of plastic surgery-like procedures exist on Ancient Egyptian papyrus as well as in Ancient Greek and Roman texts, but it is Sushurta, a physician who lived near present-day Varanasi sometime between 1000 and 800 BCE who is usually credited as the “father of plastic surgery.” His *Samhita*, including

descriptions of surgical techniques like rhinoplasty and earlobe reconstruction was translated into Arabic during the 8<sup>th</sup> century CE, from which it made its way into Italy and the rest of Europe. In the 16<sup>th</sup> century in Europe plastic surgery began to be used to correct syphilitic noses (Gilman 1999), and in the late 18<sup>th</sup> and early 19<sup>th</sup> century there are records of British physicians traveling to India to observe Indian techniques in rhinoplasty (S. Lock, Last, and Dunea 2001, 651).

Over the course of the 18<sup>th</sup>, 19<sup>th</sup> and 20<sup>th</sup> centuries, techniques improved and plastic surgery began to be used for a wider variety of conditions. However, it was not until the mid-19<sup>th</sup> century that the introduction of effective anesthetic techniques allowed for longer surgical procedures to be performed more safely. Prior to that most surgeries lasted less than a minute (however, given that antisepsis techniques would not be widely adopted for a couple more decades, it is fair to say even with anesthesia, surgeries were a brutal method of last resort, and many patients died on the table of shock or blood loss or afterwards of infection). Plastic surgery raised racial panics in Europe about surgical reconstruction or alteration, particularly of noses, allowing syphilitics (otherwise distinguishable by their sunken noses – if they had survived the disease), Jews, Irish, “Orientals,” and light-skinned Africans to “pass” (Gilman 1999, 23–24). We can see from Gilman’s careful history that medical technologies never come into existence or operate in an objective culture-free sphere (see also Taylor 2003).

Trauma surgery in general and plastic surgery in particular have a close association with battlefield medicine. Indeed, many of the most common techniques used today were developed during World War I. The combination of the recent advent of reliable anesthesia, a broad acceptance of the germ theory of disease, with the trench warfare and close-contact combat emblematic of WW I created conditions ripe for the development of surgical techniques to repair, replant, and restructure traumatic tissue damage. More recent work on cosmetic surgery in

Brazil (Edmonds 2010) and amongst Asian-American women in the San Francisco area (Kaw 1993) shows incisively how these surgical practices today articulate with racial stereotypes, gendered ideologies, notions of beauty, and, of course, the media, economic, educational, and political productions and policies that contribute to this USD 50 billion industry (“Cosmetic Surgery Market Size, Share, Growth, 2019-2026” 2020).

### What is plastic surgery? A view from Asha Hospital

Critical medical anthropologists have likewise approached plastic surgery, albeit in a perfunctory way, and primarily as one end on a continuum of bodily modification which serves as an embodiment of unequally distributed risk – as risk exposes the poor to certain kinds of bodily changes, technologies develop to insulate and enhance the bodies of the rich and privileged (Nguyen and Peschard 2003, 58). Nguyen and Peschard, here writing a review article, posit plastic surgery as the most obvious form of bodily modification which exemplifies social hierarchies and access. This does a disservice in several regards, to both the life-saving properties of plastic surgery (see its role on the battlefield, its continuing use in cancer surgery, and its prominent role in gender confirmation surgery), and to the fact that the majority of plastic surgeries that happen in many places in the world are the result of trauma, a risk disproportionately faced by the poor and precarious. The association in the West of plastic surgery with cosmetic surgery is one that is not shared in much of the world, including in Coimbatore. In this chapter, I shift focus on plastic surgery away from a luxury item to a necessity, exploring the particular kinds of labor and expertise that the surgeons cultivate, and the way that their practice does, in fact, relate to and reproduce particular configurations of class, although in a more complicated way than the too-easy critique of Nguyen and Peschard alleges.

At class<sup>32</sup> one morning in July 2017, one of the surgeons gave a short lecture about the history of various techniques of cleft lip repair (Asha Hospital is part of the Smile Train, and many cleft lip and palate surgeries are performed there). He was particularly focused on the Millard rotation, which, developed in the 1950's, reconfigured what had hitherto been the most common approach — simply to join the two separated sides of the lip. The Millard technique instead employs rotation-advancement to maintain both the cupid's bow and the softness of the lip and upper lip tissue. Many techniques have built on the basis of the Millard rotation in the subsequent decades.

After this history had been traced briefly by one of the registrars, Dr. Bhaskar, a senior maxillofacial surgeon, stood up to add a few details, delivering a short off-the-cuff lecture and sketching examples on the white board to elaborate. This evolved into a casual back and forth between him and Dr. Srinivasan as they told a few short stories about how surgeons have come up with various techniques. They said that stories abound about surgeons dreaming of new techniques during sleep, and recalled that Millard supposedly came up with his technique because, developing photos in the dark room, he saw a cleft lip upside down. In the end, Dr. Srinivasan said, "Any surgery has got many techniques and none of them is absolutely perfect." Dr Bhaskar agreed, adding, "It's good to know all the techniques and then you pick the one you like and skillfully develop it."

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<sup>32</sup> A thrice weekly morning meeting of the plastic surgery department, a somewhat less formal, more frequent equivalent of grand rounds in the United States



*Figure 13: impromptu lecture about the Millard technique*

This short exchange illustrates several important features of the teaching and practice of plastic surgery that I saw at Asha Hospital. The first is the focus on technical details. Over and over, in class, on rounds, in lectures and at conferences, the surgeons' expertise was expressed and understood as knowledge about the very small, technical details on which a surgery's success may depend. The second feature of plastic surgery is the notion and practice of substitution. A large part of what plastic surgeons do is to substitute certain body parts, tissues, nerves, and tendons for another. Knowledge about and negotiations over what parts and tissue can serve as acceptable replacements for others is therefore fundamental to this kind of medical practice. This question of substitution also means that, unlike in many other specialties, as I was frequently told, plastic surgeons cover the entire body: "the anatomy [that we have to know] goes from the layers of the scalp to the bones in the toes." Finally, in spite of, or perhaps because of,

this focus on technical details and substitutability, notions of art, artistry, and creativity were also common features of surgical practice at Asha Hospital, and beyond—indeed in his original article outlining his new cleft lip repair technique, Millard himself wrote, “The act of constructing or repairing facial features is of its very nature artistic and, as in all art, depends on freedom for its vitality. No two cases are exactly alike” (Millard 1958, 318). In addition to developing technical expertise and dexterity, surgeons must develop an interpretive and improvisational ability to react to the particular specificities of an individual case. As Rachel Prentice shows in her ethnography of surgeon training, learning surgery is an embodied practice; the techniques, ethics, and skills of a surgeon are forms of knowledge that are constituted not only through technical know-how and memorization, but are cultivated at the level of the surgeons’ embodied, affective, and social experiences (Prentice 2013, 109).

The consistent focus in the Asha plastic surgery department on surgical skill was also related to the unpredictability of trauma surgery. As Dr. Subramaniam, the head of department, told me: “There are three spheres involved in an accident: first, the patient, maybe the patient is overweight, diabetic, thick or thin, healthy or not. These things I cannot control. The second is the injury itself which also I cannot control. I cannot control how the car hits him. The only one I can control is the last one: the surgeon, his training, experience, willingness.” Throughout this chapter, we will explore how ideas about “training, experience, willingness” were deployed and cultivated on a daily basis, as well as the ways in which they articulate with concepts of care, class, and embodiment.

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After class, the chairs are cleared quickly away and the doctors depart for rounds. I hurry to tag along after Dr. Srinivasan and his team. He sweeps through the hallways (see Figure 2),

followed by three nurses, his Physician's Assistant, two or three junior surgeons, a visiting surgeon from Washington University in St. Louis, and me, all hurrying to keep up and keep out of his way. Other doctors and nurses are likewise moving quickly about the hallways in little groups, visitors are starting to arrive and the hospital is coming to life. It is 8am. A young child toddles down the hallway with his mother, his arms in splints to keep him from tugging on his IV, a nurse gently cups his chin in a casual gesture of caring as we walk by. Dr. Srinivasan sees ten to fifteen patients in the space of thirty minutes, which, with time accounted for walking from room to room, floor to floor, and ward to ward, means he is with each patient for about a minute, sometimes just a few seconds, sometimes two to three minutes. The hospital is six stories high; the plastic surgery conference room, where class is held, is on the fourth floor, but plastic surgery patients may be found on the third, fourth, or sixth floor (many patients are shared between the ortho and plastic team, so there is overlap). There is also an ICU, an HCU, and a separate ward for burn patients. There are private rooms on the third and fourth floor as well as general wards. The private rooms vary by price—the most expensive are large and suite-like with a balcony, a/c, and an extra room for attenders to stay in. Then there are simpler ones with just a single room, a TV, and an a/c. There are a few semi-private wards, with two or three people in a single room, separated by curtains. The general wards house 20-40 patients in beds in rows; they have curtains that can be drawn around the bed to give privacy. Attenders sit on plastic chairs, the ends of beds, or the floor. These beds cost 50 rupees per day.



*Figure 14: trying to keep up on rounds*

When Dr. Srinivasan arrives in a ward, a ward nurse hurries to find the charts he will need and follows him to his patients' bedsides. He usually asks the patient how they are doing, examines bandages, sometimes unwrapping them, checks vitals, listens to any updates from the nurses, and then dictates his instructions for the day—change the dressing, get PT up here, he can be discharged this afternoon. He switches easily between Tamil, Hindi, and English, depending on the patient's language, but gives his instructions to the nurses and other doctors in English. The patient and attenders usually listen carefully, sometimes pose a question or two, which Dr. Srinivasan answers quickly. Today we meet a Tamil man who was working in Saudi Arabia, injured there, and flown here yesterday to have the ends of his forefinger and thumb salvaged—only one was salvageable. Dr. Srinivasan speaks to him for a while—asks him about

the flight, what time it arrived, whether he came alone (it was a 4.5 hour flight, he arrived yesterday at 2am, and yes, he came alone). He is in one of the semi-private wards, two other people are in there as well.

In another room, one of the largest private rooms, we meet a Tamilian from Singapore who came here to have his leg amputated because of his diabetes. Dr. Srinivasan speaks to the patient for a couple minutes, then to someone on his (the patient's) cell phone, presumably a family member, telling them the patient is doing well, and that they would call the prosthetic people today to come see when he can be fitted for a prosthetic. Out in the hallway, he turns to another doctor on his team and says *we must watch that wound very carefully for signs of necrosis*—it is not clear to me if he already suspects something, or is just being cautious.

In the third-floor general ward east, one of the other doctors asks Dr. Srinivasan to take a quick look at one of his patients, a severely injured man; the doctor says he suspects, “complete brachial palsy.” The patient, whose head is bandaged and left arm in a sling, cannot feel Dr. Srinivasan touching his left fingertips. Dr. Srinivasan calls over the patient's family members and tells them that with this kind of injury they cannot operate again right away, but rather they have to wait 2-3 months to see how it is healing, if any of the sensation is coming back, and then perhaps they might be able to go back in and repair some damage. “Damage athihamaanathu,” he says, the damage is severe. Then he turns to the nurses and tells them to put in an order to begin exercises today, passive manipulation.

There are brief moments of reassurance during rounds, and the odd joke, which make the patients smile, but mostly things move quickly and the patient is addressed directly only briefly. The timelines discussed are typically only that day, sometimes the next day—will the dressings be changed, physio begun, a possible discharge today or maybe tomorrow. Families and patients

listen carefully to the doctor, nodding, only a few ask questions. In the case of children, for instance that day we saw a child of eight years with both his right arm and leg in a cast, the doctor addresses himself to the child's mother, smiling at the child and telling him to be brave on his way out.

Rounds happen twice a day with the senior surgeons, and the junior surgeons round by themselves sometimes, reporting back to the consultants.<sup>33</sup> Rounds are important because they are when the surgeon's assessments are relayed directly to the patients. As we will see later in this chapter, moments of arrival at the hospital are predictably tense and hectic, at least for trauma cases, and although the patient is often conscious and included in discussion of treatment plans prior to the surgery, these conversations are brief. Rounds are when patients and family members are able to ask questions, seek reassurance, and express doubts directly to the surgeons, yet of course their ability to do so is limited by the speed with which the surgeons move from patient to patient.<sup>34</sup> Their understanding is likewise limited by the fact that surgeons most often convey instructions to nurses and fellow doctors in English regardless of the language of the patient. Questions of empathy and care were often present in surgeons' conversations with me and with one another; every surgeon I interviewed discussed the importance of reassuring the patient and caring for them, but it is clear that in the everyday hum of the hospital, time and resources for detailed or in-depth engagement and reassurance are limited; the primary focus of the surgeons' labor, and, hence, the primary form their caring labor takes, is, as we might expect, the operations themselves, to which we now turn.

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<sup>33</sup> In India, junior doctors—residents in the United States—are called registrars and senior doctors (attendings) are called consultants.

<sup>34</sup> There is a rich literature on ward rounds in and of themselves, and on the way that they reinforce and reconfigure spatial and professional hierarchies (Grant 2008; Fox 1993; Liu, Manias, and Gerdtz 2013). Here I approach rounds as means to give texture to the hospital, the daily labor of the surgeons, and to frame the ways in which they interact with their patients.

### The Operation Theater

One day in July, as I was leaving the hospital for the day, Dr. Srinivasan suggested I come to the operating theater the next day. *We're doing quite a complex case*, he said, *you might like to see it*. I agreed, and arrived the next morning around 9 at the 4<sup>th</sup> floor plastic surgery operating suite. There are several operation suites at the hospital, two each for plastic and orthopedic, and a separate burn unit theater, twenty operating theaters in total. The designation of a suite as either “plastic” or “ortho” is somewhat misleading, as many operations require both a plastic and an orthopedic surgeon. The theaters themselves are ranged around the perimeter of the building, and sunlight streams through the large windows. Patients are wheeled into the OT through a set of double doors, but doctors, nurses, and observers enter through a small side doorway, which leads to a hallway with a shoe cubby. Leaving my shoes there, I proceeded into a small locker room. On this Thursday morning, aside from a few nurses who were getting ready, and the department secretary, who was working on his computer in an office adjoining the suite, I was the first to arrive at the OT; Dr. Srinivasan and the other surgeons were probably still eating breakfast, on their short break in between rounds and the start of surgery for the day. One of the nurses handed me a set of dark green “doctor” scrubs (shrugging when I told her that I’m not a doctor), a pair of crocs, a hair net, and a face mask, and I changed in the small locker room and headed down the hallway to OT 2.



Figure 15: The view from OT 2

OT 2 is the corner room, bright and airy, with four large windows and a nice view of the Nilgiri foothills, faded blue in the distance (figure 15). The patient had already arrived; she was sitting up on the operating table, in a surgical gown and a hairnet. She was young, I find out later 25 years old, holding the hands of one of the nurses and weeping quite silently. Several surgeons and nurses were there as well, putting up X-rays and CT scans on the light boards, writing the operating plan on a white board, checking equipment and supplies, laying out tools. The patient, who is from Bangalore, suffered a serious road traffic accident seven years previously and had had a series of unsuccessful surgeries (ten in seven years) that left her left tibia (the larger of the two bones in the lower leg) badly bowed and with a large sclerotic mass. She was in a great deal of pain and had been unable to walk without assistance since the accident. This surgery was, I

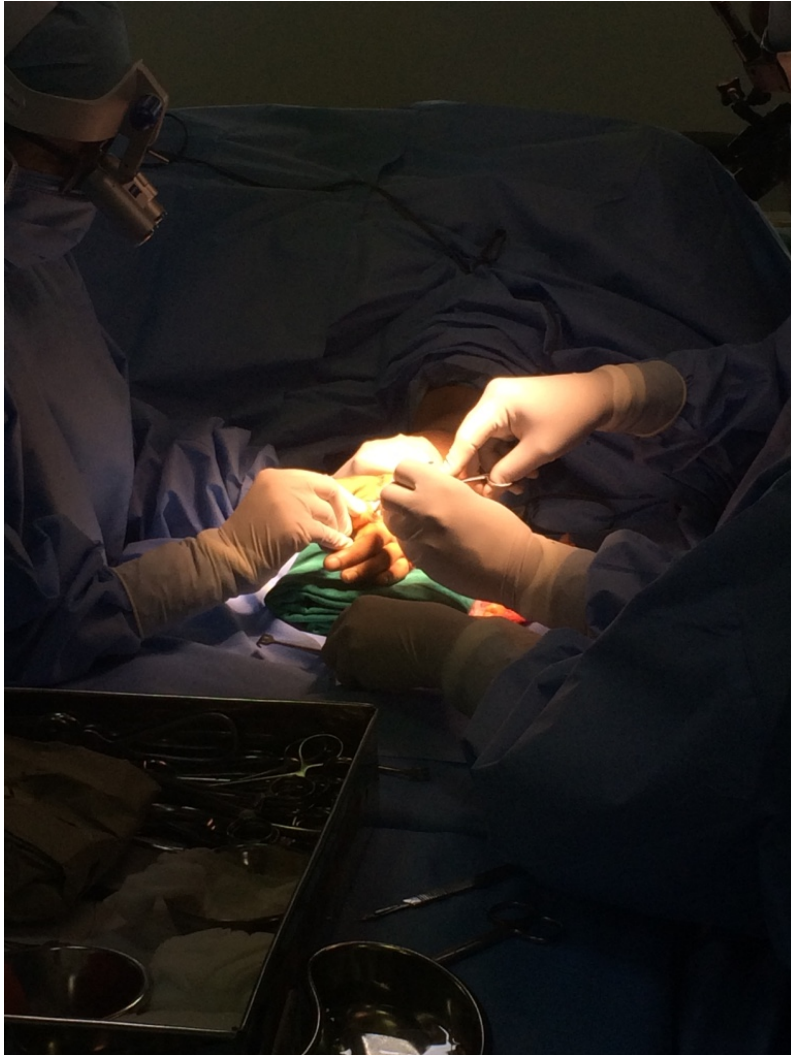
was later told, a last attempt to allow her to keep the leg: if it didn't work, she would likely face a below-knee amputation.

The anesthesiologist arrived and approached the patient. She began attempting to calm the patient down enough to administer the spinal block. The anesthesiologist asked her to hold her knees and round her back and began administering a local anesthetic. She was speaking soothingly to the patient, telling her she would do it “very slowly, slowly,” but the patient continued to cry, becoming increasingly agitated as the procedure got underway. The anesthesiologist ended up abandoning the first attempt to get the spinal in. At that point, a few other doctors and nurses arrived, and, along with the anesthesiologist, told the patient firmly not to refuse the spinal block. Although she would be unconscious for the procedure, they wanted to do the spinal as well because it offers better pain relief over the next 12 hours. *It won't hurt going in*, they keep telling her. A nurse came over, took her hands, spoke soothingly, and the anesthesiologist was able to perform the spinal. The patient lied down to wait.

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In addition to the outside windows, the OTs also have windows in the walls to the adjoining theaters. This allows surgeons, visitors, and nurses to communicate and check in with their colleagues. Observers are also allowed to go from one OT to the next. (Observers, as I mention do not “scrub in” and so of course avoiding touching any sterile equipment is paramount). There's a lull in OT 2 as everyone waits for the surgical team, so I head over into OT 3, where another patient, already anesthetized, was waiting with the second surgeon and scrub nurse for Dr. Subramaniam to come. She had had a very severe crush injury of the left arm; it got caught in a lift where she was living in the Gulf. It had not been treated well primarily, the assisting surgeon said, and she had come here for the first in a series of surgeries to try to restore

her brachial nerve. She had no movement or feeling in that hand, and the flaps that were covering her arm were very swollen and unwieldy.



*Figure 16: A calm moment*

Dr. Subramaniam came in, sat down, and got started. He called to a visiting foreign surgeon, a doctor from the UK who is doing her general surgery residency in Brazil, but who is interested in plastic surgery, to “come, tell me about yourself.” Chatting with the foreign doctor and myself, he cut open the flap that was covering the back of the patient’s hand and started cutting away tissue. He reduced some of the bulginess of that flap, and then went about cutting down to the extensor tendons. He did the pointer finger extensor first. After he was almost down

to it another doctor came in to tell him something about another patient; Dr. Subramaniam left quickly, leaving the other surgeon and scrub nurse to continue working. He came back after just five minutes or so, the tendon was released and he then forcibly bent her forefinger back and forth, breaking up the scar tissue, because right now her fingers don't even move at all, even passively. This way she'll at least have some passive movement which, he said, "will give her hope that someday it might move." He proceeded to do the same for each finger, "one down, three to go," revealing the tendon, loosening it a bit, and then crunching the fingers down. Finally, having done all four fingers, he started closing up. The atmosphere was calm and peaceful. The way that he cut away at the tissue had a meditative or artful quality, the other surgeon and the scrub nurse assisted him calmly and there was an easy flow, a workmanlike quality to the way they worked together. All were seated on stools around the patient's outstretched arm (see figure 4). The secretary or other doctors came in from time to time to ask questions or tell him about an email he had received. He chatted with me about my research and my plans for writing up, and explained things to the other doctors, showing what was most important about this or that step. He often spoke in Tamil, with his secretary and the other Tamil-speaking doctors, including Dr. Srinivasan who came in briefly before beginning his own surgery. I would walk to the windows from time to time to check on the other surgeries going on. By now they had started on another patient in OT 4 and Dr. Srinivasan had started his patient in OT 2. She was unconscious now, and from the window I saw them turn her over onto her stomach. Dr. Srinivasan began drawing on her legs, making the plan for the surgery.

By the time Dr. Subramaniam was closing, they had started the microsurgical portion of the leg surgery next door, so I went back into OT 2. Dr. Srinivasan was dissecting her injured leg from the back, through the calf muscle. He asked one of the other surgeons to tell me a little bit

more about the case. So Dr. Manoj took me over to where a series of images of her legs, x-rays, CT scans, and MRIs, were hanging on a lightbox. He pointed to a white mass on one of the images—*see all this scar tissue? That's why Dr. Srinivasan is having to go in through the muscle; it is a much more difficult approach, but all the others have already been used, sometimes more than once.* I ask about the basic plan for the surgery and am told that, after Dr. Srinivasan opens her left (injured) leg, he and one of the orthopedic surgeons are going to remove 20 centimeters of the tibia (the large bone, which in her case, is bent and sclerotic, never having healed properly from the accident), Dr. Srinivasan is then going to “harvest” the fibula (the smaller of the two leg bones) from her right (uninjured) leg and use that to replace the removed, injured bone. The whole surgery would take nearly 6 hours; this kind of cross-plant has only ever been done a couple of times, maybe just once before, Dr. Manoj tells me. That explains the level of excitement in the room; one surgeon is assisting Dr. Srinivasan, but 4 to 6 others float in and out throughout the course of the surgery, crowding around, watching. Dr. Manoj tells me that each fibula carries only 4% of a person's weight, so, she should be able to walk on her right leg even without the fibula, but still, it is clear they are making a risky trade-off, insulting her uninjured leg in the hopes of restoring her ability to walk on her injured leg.

Dr. Srinivasan, though, is calm, meticulous. He is sitting very straight on a stool, looking through a large microscope as he cuts through layer after layer of tissue: scrape, scrape, scrape, cauterize a bleed, put a clamp on a vessel, scrape, scrape, tag a tendon and move it carefully to the side, scrape, scrape. There is one surgeon assisting him, looking through a second eyepiece on the microscope, two head surgical nurses, as well as several more who circulate, bringing in new trays of equipment, and removing waste, and one surgeon with the official hospital camera. Everyone else has their smart phones out and is taking pictures, too. The image that Dr.

Srinivasan sees in the microscope appears on a television just behind him, so the other doctors can watch the surgical field itself as well. They beckon me forward to watch too; after a few relatively uneventful minutes, suddenly the screen fills with blood. I glance around, everyone is staring intently at the screen, time seems to slow, but it is only a few seconds before Dr. Srinivasan has found the source of the bleed - a nicked vessel - a nurse has handed him the correct tool, he's clamped the bleed, and the nurse suctions and daubs the wound clean again. There is a collective exhale.

The surgery proceeds like this, with moments of tension, interspersed with calm. Eventually Dr. Srinivasan has opened both of her legs down to the level of the bone, first one, and then the other. There is a tourniquet on the leg he is working on, when it was applied, a nurse wrote on the whiteboard "TQ on," and the precise hour and minute it was put on. They have, at the very most, two hours, before they need to take the tourniquet off without risking damage to the tissue, and better an hour and a half. Between this, and the fact that Dr. Srinivasan cauterizes the small capillaries as he goes, adding a faint acrid smell to the antiseptic odor of the OT, and avoids cutting any of the larger vessels, there is very little blood in the surgical field, but the muscle he has cut through and separated is red, and raw-looking, exactly, I think with a slight turn of my stomach, like a piece of red meat. When he gets down to the injured bone in the left leg, he finds the main vessel which leads to it, and to which they'll connect the harvested fibula. He tags the vessel, the tourniquet comes off ("TQ off" goes up on the board), and everyone relaxes a little bit.

Meanwhile Dr. Srinivasan has started working on the second leg; the whole process begins again, "TQ on" goes up on the board. He is going through the outside of the right leg, which will give him a clear shot at the fibula. It takes about 40 minutes to get down to the fibula,

he finds the main vessel, tags it, then cuts around the bone, including a few inches of muscle and tissue that he will take with the bone. Finally, again the tension mounting, he clamps the vessel a few inches from the bone and cuts it. The whole game, I've been told many times, with replantation in a case like this, is establishing blood flow. That means also limiting the ischemia time of each of the components in the course of the operation. Ischemia time is the time over which a body part has no or a reduced blood supply. So they now have only an hour or so to connect this small segment of bone, and the small amount of muscle and tissue surrounding it which he took as well, to the blood supply in the other leg before it starts to die. Dr. Srinivasan carefully saws through the fibula and carries it to a table a few feet away, where he lays it under a bright light, and sits down with it. He wraps it gently in wet gauze, and continues to drip saline water on it. The assisting surgeon begins to close her right leg.

Meanwhile, the orthopedic surgeon has arrived and begins sawing at the left, injured tibia. After maybe twenty minutes, he takes the bone out. The orthopedic surgeon is examining the removed bone, bending and flexing it, and showing it to the other surgeons; it eventually ends up in a biohazard bin. The harvested fibula is wheeled back over to the patient, the orthopedic surgeon leaves, and Dr. Srinivasan sits down again. The fibula is placed in the gap left by her removed tibia, rotated, and secured in place with an internal fixator. The vessels are sutured together, bringing blood to the replanted fibula. TQ off. Dr. Srinivasan sighs, stretches, and pushes back from the operating table. The assisting surgeon begins to carefully close.

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Even though this surgery was unusually complicated, similar scenes, techniques, exchanges, and labor take place everyday in these operating theaters. This excerpt exemplifies the way that care and expertise are expressed as attention to very small details and very small

body parts. I was struck, that day in the OT, by the gentleness with which Dr. Srinivasan handled the harvested fibula. For maybe thirty minutes, while the orthopedic surgeon removed her injured tibia, Dr. Srinivasan sat in the corner, keeping the fibula wrapped safely in gauze, dripping saline water on it, ignoring the bustle of the rest of the OT, his focus entirely on the health of that bone and surrounding tissue.

Surgeons and nurses must balance the opposing aims of minimizing ischemia time and being cautious and methodical. A good surgeon can work both quickly and carefully. As Dr. Subramaniam said one day in class, “the problems with a major replant increase exponentially with time (referring to the fact that the patient being discussed had arrived too late for them to salvage the limb). So, you too need to hurry—don’t hurry the surgery but do impart a sense of urgency to the team—the nurses and anesthesiologists will take their cue from you, so be focused and move quickly. Even 20 minutes or 30 minutes means so much to the patient...[it] means, whether he has a hand or not, all the way to how much money he makes, what kind of job he has, whether he gets married or not. So you are a very powerful guy.” With this quote, Dr. Subramaniam moves us to the next important theme of this chapter: although the surgeons are focused on minute and technical details, they also work consciously and consistently to connect to and understand patients’ broader lived realities and the role of the surgery in constructing, reconstructing, or disabling various possible futures.

### [Reconstructing Class](#)

The ways in which patients and their bodies are treated varies according to a wide range of factors; the nature of the injury itself, which body parts are involved, the amount of time that has passed between the injury and their arrival at the hospital, and the patient's situation more broadly, including their ability to pay, all are taken into account as the treatment plan is agreed

upon at Asha. The notion of productivity, a productive body, and particularly, a body's ability to be productive in the future are at play in explicit ways in these encounters. I draw on Alison Kafer's notion of "crip time" to think about the way the body, and here, especially the hand, is reconstructed, always in conversation with the hope of future productivity, or the threat of future unproductivity/disability, looming (Kafer 2013). In this section I draw primarily from a series of interviews with Dr. Manoj, who we met briefly in the previous section, a senior surgeon at Asha who specializes in wound care, interweaving his comments with a description of the experience of arriving at the hospital as a trauma case to investigate the ways in which embodied notions of productivity are negotiated and remade in these encounters.

When emergency ("open wound") cases arrive at Asha, they are evaluated quickly by the casualty officer who sends them immediately to the fourth floor for an x-ray. Often patients arrive having had some first aid either on site (many factories have small attached clinics) or on the way to the hospital. Patients come from a radius of two or three hundred kilometers for first-order surgeries, and often the difficulties of traveling to reach the hospital were common themes of these stories as well. Ayyappan, who we met in the Introduction, was injured in Sivakasi, a town in southern Tamil Nadu. Although Sivakasi is famous for a notoriously dangerous industry—the production of firecrackers—at the time of his injury, Ayyappan was working in a medium-sized factory that produces plastic (polythene) bags. The machine he was working with got stuck, and while he was trying to fix it, it depressed unexpectedly, catching his right hand and cutting off his middle, ring, and pinky finger along with a large portion of his hand. Because of the extent of his injury, the doctors in Sivakasi recommended he go to a hospital in Madurai (about a 2 hour drive). The surgeon was away at the hospital in Madurai when he arrived, and, he was told by the hospital staff that in any case his injury would be better handled at Asha. He had

been bandaged up in Sivakasi, his bandages were changed in Madurai, and he got back in the car, along with his brother and the owner of the factory. It is a 5-hour drive from Madurai to Coimbatore, and, he told me that when he arrived at Asha, “I had not even one drop of blood left in my body.”

Harris Solomon’s work on the movement of bodies to and around the hospital is useful here, and his account of how the initial trauma is exacerbated by sometimes arduous journeys to the hospital was something we heard many times, as well (Solomon 2017). Because Asha is so well known, and draws from such a wide radius, many people we spoke with had several hours of travel before they reached the hospital, sometimes having received first aid en route, sometimes not. Indeed, one man I spoke to briefly in the hospital had been injured while working construction in the UAE and, after receiving treatment to stop the bleeding, was bundled onto a plane mere hours after his accident and flew to Coimbatore.<sup>35</sup> Some people were able to salvage body parts from the machine, some were not. Those that could, like Ayyappan, typically wrapped the pieces, packed them in ice, and brought them.

In various states of consciousness, almost always accompanied by family members, friends, or coworkers, patients go from x-ray to the 4th floor plastic surgery pre-op ward, where they meet their surgical team for the first time. The first priority is to get them out of pain; this usually involves a regional nerve block. Most cases, except the most severe, are operated on while the patient is conscious, under a nerve block. “After you get them out of pain, what do you do?” I asked Dr. Manoj.

Then, [I] assess the injuries. Assess the injuries; I would just take a gross look at the injuries. I would take a gross look and I would immediately form my plan, what the end result, whether to salvage [the injured body part], or whether to remove it. Because, here, economics also play a very important role in the decision to salvage. Because the patient

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35. There is a direct flight from Coimbatore to Dubai; for more about the flow of labor from South India to the Gulf countries, see Osella and Osella (Osella and Osella 2000).

must be able to afford it. If he's not able to afford it, then sometimes, an amputation may be cheaper, and better for all. Because it's not just about treating the patient, because, here, the only insurance that exists is social insurance. So either his uncle, brothers, brother-in-law, everybody gets together and pays in. So in fact, you would be actually putting down a whole family if you don't reconstruct well and you give an unusable limb. So in fact there it would be better to amputate, where he can change his, just shift his job, and still be useful to the family, without putting the whole family into debt.

Here, Dr. Manoj moves seamlessly from talking about a medical practice of looking and evaluation (“assess the injuries”) to a detailed consideration of the patient's economic and social situation (“the patient must be able to afford it”) which in turn has an impact on both the doctor's decision to salvage or not, as well as, Dr. Manoj recognizes, the various potential futures of the patient and his family. This kind of economic calculus is an integral part of the caring labor dispensed by the doctor and depends explicitly on the surgeon's understanding of his patient's financial and class situation. The stakes of this moment are high (“putting the whole family into debt”). The question of the patient's productivity here arises as both a physical and a social concern—the patient's body is not and has never been wholly his own; it is made and given meaning through a complex web of social relations, in which practices of both work and care are entangled (Hacking 2007; Ram 2013). Assessing the injury is of a piece with considering possible future horizons of recovery (“give an unusable limb”) in which the possibilities of and for productivity are both paramount and intensely social (“still be useful to the family”). Biomedicine has long been critiqued for the dehumanizing aspects of its physician's gaze—the ways in which doctors are taught to see narrows the focus so much as to obscure the details of the person themselves (Good and Good 1989). Yet here, the surgeon engages in a balancing act, recognizing that the surgical expertise he has to offer and the gross viability of the limb are *not* the only concerns on the table. Dr. Manoj points to the fact that the body itself is enmeshed in, made up of, and made meaningful through a complex array of social relations and obligations.

The reconstruction of a hand, then, is not a simple technical task accomplished by the surgical team alone, but rather the patient's social network is part of the reconstructive team as well; the politics, costs, and stakes of reattachment extend beyond the body of the individual on the operating table.

In fact, in the pre-op ward, as they are making a plan for the surgery, the surgeons give the patient and his/her attenders a fairly accurate estimate of what the procedure will cost, or, if there are multiple options, what each of those might cost. Following up on his comment about debridement from the previous section, Dr. Manoj told me that, if the patient determines that the full cost of the surgery is too expensive at Asha, he will always urge them to let him debride before transferring to the government hospital — in the hopes that, with a more “radical” debridement, the surgery at the GH, potentially with a general rather than a plastic surgeon, will be more likely to succeed.

The value then, of the body itself and its parts, is explicit and enumerated. These parts are differently valued depending upon the patient's broader situation. I was told several times that women, particularly unmarried women, were more likely to insist upon a reconstruction rather than an amputation. *Women tend to be more concerned...less willing to accept an amputation*, said one surgeon on rounds one day. Or, as another chimed in more bluntly when I asked why that was the case, *Who will marry a woman with only one hand?* The body in general, and disability in particular, intersects with other aspects of identity. We see echoes, here, of the way women were cast as particularly at risk in certain forms of work, and that this risk was framed in terms of qualities of feminine bodies – long hair, loose clothing, jewelry, and weak muscles – these were all used to conjure a picture of a woman unsuited for certain kinds of work. In the hospital, the same process seems to work in reverse; women are seen to be both more interested

in and more dependent upon a presentation of bodily integrity. This is related both to expressions of stigma around apparent disability, and also to normative ideas about what a body is for. I read the question *who will marry a woman with only one hand* as confirming Indira's assertion that women do *indeed* need two hands to do the work. Or at least, women are expected to work with both hands and, their value more broadly and their ability to perform expected roles throughout their life course is called into question if they are unable (or perceived to be unable) to fulfill the demands of reproductive labor.

More than that, though, this statement shows the specific way that ideas about appropriate and desired futures are read, at the hospital, through notions of the uses and usefulness of particular body parts for particular people. As I return to below, it is not only that different people, and their situations come into play, but different kinds of limbs are also valued differently. For many of the patients I spoke with, their status as factory worker is part of the reason the doctors focus intently on restoring function to their hands and guides the surgeons in assessing the patients and presenting treatment options. It is also, then, inextricable from the surgeons' area of expertise. That is, the doctors (and patients, most often) insist that the restoration of function to an injured limb is an unqualified good (I return to this question in the following chapter). It is this assumption, added to the supply of maimed bodies on which to practice that enables the surgeons to develop a reputation for and expertise in hand surgery in the first place (Shapiro 2020). I attempt to trace this constitutive contradiction over the coming pages.

### Class and productivity

Class in South India, as elsewhere, is a concept that is difficult to pin down. In an edited volume in 2008, a group of scholars set out to "recover class." In the introduction to this series,

Richard Herring and Rina Agarwala argue that class, once a central analytic in South Asian Studies, has lost prominence in the late 20<sup>th</sup> and early 21<sup>st</sup> century (Herring and Agarwala 2006). Herring and Agarwala relate this retreat from class analytics to broader, global discourses of “market triumphalism” in the early 2000s, in which a discussion of class structures or class politics was made to seem old fashioned, as well as to the failure of the USSR, which was taken as evidence, if not by Marxist scholars themselves, then perhaps by the broader public, of the larger failure of Marx’s ideas to hold true to political economic movements in the 20th century. This shift relates to questions of scale as well. Class as an analytic is lost as focus shifts to either the macrolevel (globalization, GDP) or the microlevel (the subject, the body). In the following chapter, I turn more fully to a discussion of Marxist feminist approaches to the social reproduction of labor and the working class. Here, I consider scholarship that approaches the materiality and experience of class.

More recent scholarly attention to structures and experiences of class in India have focused on narratives about economic liberalization, the burgeoning middle class, and practices of conspicuous consumption (Fernandes 2006; Mazarella 2003). These scholars connect the consumption patterns of middle-class Indians to discourses about modernity, nationalism, and globalization. Sareeta Amrute complicates earlier work on the middle class by considering the ways in which Indian programmers in Berlin contest the notion of work and consumption as an unequivocal good, but rather assert their middle-class authority by limiting the ability of work to encroach on their free time (Amrute 2016). In her study of class in Madurai, Sara Dickey makes an argument about “the critical significance of being seen for marking a person’s class standing” (Dickey 2006, 85). She shows the ways in which her interlocutors theorized about their own and others’ practices of consumption, how these practices condense in visible displays of the body

(dress, fashion, comportment, ideas about “neatness”) that produce oneself as belonging to a particular class, as well as the importance to the performance of being publicly recognizable as belonging.

What I want to pick up on here is the importance of the visible, and of the body, for displays of class, as well as the fact that those displays are read by others as indicating one’s belonging to a particular class. However, the function and reproduction of class in the hospital has little to do with conspicuous consumption. Rather visible markers of class are read and interpreted by the surgeons to mean something significant about a patient’s broader circumstances. Class here is relational; a person’s membership in a particular socioeconomic stratum is (thought to be) recognizable based on their appearance – the kinds of clothes they wear, jewelry, cell phones. The materialities and aesthetics of class are not only present in the medical encounters at Asha, but reinforced. The medical gaze combines with practices of looking that sort the gazed-upon person into a particular class. A person’s class informs the treatment plan both in that “the patient must be able to afford it,” and because the surgeon makes inferences about what a body or body part will be used for based, in part, on the patient’s identity.

Early in the clinical encounter, a patient’s finances, his family situation, and the various futures the surgery can open up or foreclose upon for him are couched in terms of his future bodily (and hence, economic and social) productivity. The complex nexus between body, work, and family is here condensed in the material object of the worker-patient’s hand, and the randomness of the injury it sustained – now an object of the surgeon’s labor. Often, phone calls are made from the pre-op ward, as the patient and his attenders reach out to friends and family to see, as Dr. Manoj said, who can contribute to the cost of his care. In the case of workplace

accidents, frequently the factory owner will pay for a substantial portion of the medical care, if not the entire amount. Of course, the unfolding of this series of fraught conversations is itself dependent to a great extent on timing. Ischemia time looms large throughout all of these encounters, as well in the operating theater itself, as we saw earlier. For my interlocutor from Sivakasi, when he arrived, his severed hand would have been right at the edge of the time limit beyond which they would not have considered replanting it. So, in his case, this slowdown, after the anesthesia, during the planning phase, when there might have been time to call friends and family members, was truncated, and he was rushed directly into surgery.

Yet, even with very little time, as Dr. Manoj said, it's not only the wounds that are assessed:

“How do you assess the economics?” I ask Manoj.

“Just look at him. Look at him. Look at his wife. See what's the chain she's wearing.”

“Whether it's gold or...?”

“Yeah, the yellow thread or gold. Just, look at the fellows around him, and I'll know, if they're unshaven and scraggly, I know what they can [afford], so I would actually price them like that. If I think, if it is an upper limb, then I would price my reconstruction lower. So that they will not be biased into telling me to take it off.”

Just as the doctor takes a gross look at the injuries, he, in the same glance, visually evaluates the patient, looking for typical, visible markers of class. The chain he's referring to is a thaali chain, a necklace worn by married Tamil women; typically, wealthier women have chains made of gold, while those unable to afford that wear, as he says, a yellow thread. Here we can see that

plastic surgery in this case is inextricably bound up with physical markers of class (although in a very different way than in the case of cosmetic surgery). In this evaluation, the surgeon reinforces common-sense notions of the aesthetics and materiality of class. The bodily calculus negotiated as the doctors and patients decide upon a treatment plan hedges the future productivity of the limb against the present cost of reconstruction. The specific identity of the patient is always at play here, and, in the case of a worker, his hand is reconstructed as an instrument of labor. As Dr. Manoj said, “with the hand, I would put function over form. My priority, I would put function over form. At least for the type of patients that I treat. For example, a poor laborer, I would put function over form.”

Most of the surgeons I spoke with defined “a successful surgery” as “the patient being able to return to work.” And indeed, of the patients that I interviewed who were capable of going back to work, nearly all did so, usually at the same workplace, often with the same machine. At the same time, there is of course disagreement about what precisely productivity means. Kannan, who we met in Chapter 1, had a reconstruction of a finger which failed. He was angry the doctors wasted his time and money attempting what he saw as an unnecessary reconstruction; and yet, in spite of the fact that even with the amputation he is able, physically, to continue to operate his machine, it is the disturbance in his mind caused by the accident that affects his productivity, not a physical constraint. The implications of the injury/trauma, as the surgery itself, exceed the physical/medical. This complicates the implicit assertion of the surgery: the idea that if people’s bodies are intact, they will be productive.

The doctors are, of course, cognizant of these issues and theorize carefully about them. Although I did witness subtle differences in treatment for patients who were obviously wealthy or obviously poor, to a large extent those episodes of discrimination happened in waiting rooms,

when making appointments, etc, rather than in face-to-face encounters with the surgeons themselves. Dr. Srinivasan once told me, “India’s poor are hardworking, and they want high quality care. There is no difference between me, who became a surgeon, and a man who works in the canteen, no difference in intelligence, it’s just that I was lucky to be born in the right place, and had opportunities for education, and other things, that this other man did not have. Everyone is working hard to get by, but they lack equal access to opportunities.” In a similar vein, Dr. Subramaniam told me explicitly that equity and access are fundamental to the mission of the hospital:

[Y]ou have to do high quality, state of the art treatment for everybody. Some people think that if you are providing care for the poor, you can just give them dirt, but I think that is not right. The poor in India are very discerning and won’t pay for something if they do not think it is good quality. Our mission is to make high quality treatment and surgery available to anyone in India, so to do we must obviously keep costs down. Costs can be kept down, provided doctors are willing. And of course also to keep costs down, you have to increase the volume.

On the other hand, while these ideals are expounded by the surgeons, they do not necessarily trickle throughout the hospital, and daily examples of class privilege and discrimination are apparent. A few weeks after I met him, Ayyapan, from Sivakasi returned to the hospital for a follow-up visit, as scheduled. He and his brother made the day-long trip, only to arrive at the hospital and be turned away because his surgeon was out of town. I called to check up on him, because I had been planning to meet with him that day, too, and became annoyed on his behalf when he told me that no one had told him his surgeon wouldn’t be there when he scheduled the visit, and about the way in which he had been brushed off. This can be read as simply a miscommunication, but this pattern repeated, and people who spoke English or appeared wealthier, were often given shorter wait times in the OPD, or able to schedule appointments in advance. A few months later, the guard who worked at my apartment building was hit by a car

on his way home. He was not badly injured but a few days later he was still in pain and unable to raise his arm; when I suggested he ask the doctors at Asha (which was just around the corner), he said he'd have to wait a long time there, but agreed to come along with me the next morning. Because of my racial and class privilege, along with the privilege born of my familiarity with the doctors, I was able to get him seen without a wait. In moments like this, class is being made and reproduced through race and other categories as a mode of exclusion, status, and hierarchy. In the next section, we turn towards the ways in which ideas about class, labor, and gender informed surgeon conversations and practices around what certain kinds of bodies, and different body parts *do*.

## Form and Function

### Different kinds of limbs

The balancing act between the cost of the operation and the ability of the family to pay, is complicated by the varying values placed on different parts of the body. The arm and hand here are seen as far more crucial than other body parts, especially lower limbs. Following the discussion of substitutability, although tendons, nerves, and bones can be harvested from other body parts, the same thing cannot be said for nonhuman technology. Hands are considered irreplaceable, unsubstitutable by current prosthetic technology by most of the surgeons at Asha. I return to Dr Manoj's quote, "...if it is an upper limb, then I would price my reconstruction lower. So that they will not be biased into telling me to take it off." Here, echoing a conversation I had many times with various surgeons, he points to the way in which different body parts are evaluated -and valued- differently, and again, almost always in terms of productivity. The intense significance of the hand itself in terms of economic and social viability is reflected too in the way that disability welfare benefits are adjudicated – the loss of a hand is “worth” more, or,

results in a much higher “percentage disabled” for the purposes of making claims from the government. This valuation/evaluation is prevalent in the medical encounter as well; Dr. Manoj went on to say that, both because of the relative unavailability of acceptable upper limb prosthetics ("no prosthetic can ever replace the function of an upper limb") and because of the importance, symbolic and practical of hands themselves, he is always more willing to try to salvage a hand, "as long as he has a finger and a thumb (holds up his forefinger and thumb), I would still go about reconstructing, because that in the longer run will be cheaper."

“Cheaper than not having a hand at all?” I ask.

“Right.”

By cheaper, Dr. Manoj does not mean that the surgery will cost less. In fact the opposite, the initial cost will be considerably more – the surgery itself will cost more, additional follow-up care will be required (whether surgeries or just physical therapy), the recovery time will be long and uncertain. However, his claim is that, even with the reduced function (and, hence, perhaps productivity) of having only a finger and a thumb, a person will be able to contribute meaningfully, financially to his family so that in the long run, the initial injury will cost the family less than an amputation which of an upper limb, after which it would be more difficult to find paying work.

In comparison, Dr. Manoj and others argued, a reconstructed lower limb is not much more functional than a prosthetic. Discussing this issue with a registrar a few days later, she said, “It’s not that amputation is cheaper. It is...at least in the lower limb, people feel that if at all even after repeated surgeries, they cannot walk, it’s just going to be, it’s not going to be that good a functional limb. It’s not going to be as good as the other one. Then they’re ok with taking it off and then using a prosthesis. At least in the lower limb. Because if you’re trying to reconstruct it’s

going to cost you somewhere between 2.5 to 3 lakhs. Whereas if you amputate, it's going to be like 30, 40 thousand, and they can use that 2 lakhs to get a really good prosthesis.”

“But for the upper limbs?” I asked.

“Upper limbs...rare occasion is when you go in for an amputation of an upper limb. People are not very ok with using a prosthesis. So they'll try their level best to go in for reconstruction. And when you do amputate, they're pretty upset for a longer time. They feel like...they get annoyed, depressed.”

“Because, just because hands are...?”

“It's more, well the prosthetics are not going to give you this [opens and closes fingers]. I mean not that well. Maybe the leg is covered with clothes, nobody's going to notice it. There are people who don't even have that much of a limp; they'll manage it with time, to actually walk quite ok. There's no noticeable difference. While in upper limb I think it is quite noticeable, so that factor is there, too.”

#### Cosmesis and aesthetics

These quotes speak to the way that form and function are negotiated in the hospital, both before and after the surgery. Form and function triangulate with a patient's identity, again, with what they are expected to use their limb for, as well as with the specific body part in question.

Some surgeons articulated this as a difference between reconstructive and cosmetic plastic surgery:

See, basically plastic surgery has many parts. One is the reconstructive trauma, otherwise you know it will be cosmetic parts and all. So in reconstructive, the basic fundamental is that importance is more given to function rather than aesthetics. Because it takes time, because acute injuries, reconstructive and functional restoration is more important than the cosmetic part. Cosmetic part is one thing only if the flap doesn't look nice, after six months or one year, after everything is healed you can do other cosmetic procedures to sort of improve the cosmesis. Whatever it may be, you can do that. So I think that, though

looks are important definitely, but in reconstructive surgery as such the primary importance is given more to function. Functional restoration. So you can do secondary surgeries and lots of patients they come and they undergo secondary procedures to improve their cosmesis. But primary importance should be given to the functional, and that also we need to explain to the patient. We do a flap, it seems it will be bulky. We just inform that we can do secondary procedures later on to reduce the bulk of it. I think you should tell them before the surgery, then they won't mind.

However, form and function are inextricably related. As Dr. Srinivasan told me, “for something to *be* a hand it must *look* like a hand.” He went on to explain that, although they do very little elective cosmetic surgery at Asha, all the surgery they do is nonetheless aesthetic. “All reconstructive surgeries are to some extent aesthetic, because aesthetic refers only to a sense of form... If I reattach a thumb, or use a big toe to construct a thumb which is missing, that is aesthetic as well because it has to do with the form of the hand.” While primary importance may be given to the function of a particular body part, the capacity of that function to be normal is also dependent on form. In their work, the doctors consistently evaluated what the purpose of a particular body part was, for the specific patient before them; this evaluative practice shaded back and forth between the narrowing of their gaze to minute details discussed earlier (what particular surgical technique will optimize the patient's chances of a return to function) and the expansion of the patient's body into his or her particular social lifeworlds (what does this particular patient use their body for, and how does that affect the surgical choices and priorities).

Much of what I have written about here seems to follow a fairly predictable, problematic notions of bodily integrity and productivity. As we know from much canonical work, the body is never whole and integral, it is always, already split, multiple, and with various influences interjecting into it. Alison Kafer, Ellen Samuels, and other Disability Studies scholars argue that notions of time creep into conversations about disability in interesting and troubling ways (Kafer 2013; Samuels 2017). These experiences are frequently understood and narrated through notions

of productivity, which splits the body neatly into pre- and post- injury temporal existences, and imposes a nostalgia for an (imaginary or not) pre-injury, able body.

However, plastic surgery in this context also shows the creative and, sometimes, experimental ways in which body parts are substituted for others. Leslie Sharp has written about organ transplantation and the identity and embodied work that must be done to integrate someone else's organ into one's body (Sharp 1995). Lawrence Cohen writes about kidney selling and transplantation as both incorporation into regimes of bioavailability and expressions of love and care (Cohen 1999; 2005). Few social scientists have considered transplantation in terms of the labor of the physicians themselves, and, more importantly, I add to this literature by asking, what does it mean if the substitution in question comes from the patient's own body? This substitution work is the bread and butter of plastic surgery — at Asha everyday skin and tissue are moved around to fill in gaps, to cover wounds, tendons and nerves are harvested from other limbs, toes are removed and replanted to stand in for missing fingers and thumbs. The body reconfigures as it is reconstructed.

Furthermore, this expertise in substitution is related to the necessity that plastic surgeons be expert in *all* body parts and was used to explain the difference between plastic surgeons and other surgeons. Dr. Srinivasan told me, “Plastic surgery is a very unique specialty because it deals with all ages, sexes, all parts of the body, all organs, and every kind of tissue—bones, skin, eyes, tendons. This has advantages and disadvantages. Advantages are that we excel at all these things and are therefore integral to all other kinds of surgeries, [we] can reconstruct after a cancer surgery better than a cancer surgeon.” Arguing for the importance of plastic surgeons on trauma teams in particular, a wound care doctor, Dr. Manoj, emphasized the importance of debridement to the healing process, and argued that a plastic surgeon will be “a little more

radical because he knows he can cover the wound.” Debriding is the process of cleaning the wound surgically; it involves not only removing dirt and other foreign matter, but also cutting back the living tissue which has become contaminated. If enough tissue is not cut back, the chances of later infection in the wound rise. Dr. Manoj said, “At the end of debridement...there must not be anything dead in there. There must not be anything contaminated. There must not be anything potentially dead, which will maybe die in one or two days. Those are the places where bacteria can thrive, and then lead to invasive infection. So once the debridement is done very well, usually you would get away with anything. Even if the flap fails you can easily put another flap.”

Here, Dr. Manoj connects the expertise and confidence of plastic surgeons in regards to substitution directly to their superior ability to treat wounds. Precisely because they’ll be able to “cover the wound” — that is, harvest tissue and perform a flap or a graft to fill in for the tissue excised in the debridement — the patient is at lower risk for infection. He is also making an interesting point here about the contradiction at the heart of surgery (Prentice 2013)—that surgeons have to cut into a body in order to heal it. The surgeons at Asha are not only comfortable with that contradiction, they find artistry and creativity (and, of course, overall benefit for the patient) in their ability to repurpose harvested tissue.

In the same conversation, Dr. Manoj brought up the artistry of plastic surgery as well, when discussing why he chose plastic surgery as a specialization: “I always had an eye for detail, so I knew I could operate very efficiently and I loved it as an art. Just ripping open, it doesn’t work, it’s not like that, it’s like...talking to the body and the body talks to you, and you do it properly.” In Tamil, surgery is அறுவை சிகிச்சை [aRuvai cikiccai, which translates literally as “cutting healing/treatment”]; however, I rarely heard either doctors or patients refer to it as such.

Rather, whether they were speaking English or Tamil, the English word surgery or plastic surgery was used. The Tamil signs in the hospital designating the plastic surgery theater are transliterations of “plastic” coupled with அறுவை சிகிச்சை (see Figure). The word plastic comes from the Greek *plassein*, “to mold,” and it is this association, with shaping and transforming, that surgeons often held to in their descriptions of their work. As we saw in the operating theater earlier in the chapter, a subtle creativity is coupled with efficiency— this artistic side of the surgery happens in the planning process, but it is also present in the theater itself, as surgeons respond to the anatomical realities in front of them.

It is easy to read this as a story about the straightforward consumption of bodies by capital. But if that is true, the violence of sending someone back to work at a dangerous factory is inseparable from the desire, both on the part of the doctors and the injured patients, to minimize someone’s disability so that they can continue to care for those close to them. In other words, it is not in spite of or against notions of care that capitalist productivity is maintained and extended, but rather in and through them. Furthermore, although the surgeon’s insistence on productivity and function reinforces hegemonic ideas of bodily normalcy (and abnormality), their definition of what counts as “normal” function and form is, perhaps, considerably wider than we might expect. Having sat in hundreds of trauma review sessions, conferences, and casual conversations with doctors in which they flicked through pre- and post-op photos on their phones, the range of outcomes that are considered functional and/or acceptable is really quite wide. Again to return to the notion of substitution, part of what plastic surgery as a discipline does seems to be to think about what body parts can be repurposed for others: a toe can replace a finger or thumb, wide swathes of chest muscle can replace neck tissue, a right hand can replace a left hand, and a thumb and a single finger can replace a hand.

So, I want to consider whether there is another way to think about the impact of a traumatic injury on a persona without reducing it to a question of productivity/function. This a response to Kafer's call to imagine possible other futures in which ability/disability is considered, valued, and lived differently (Kafer 2013). Can the doctors' (and patients' – for they are often determined that the doctors should attempt the surgery) insistence on reattaching hands be read as something other than reinforcing notions about human value that reduce the body to simply an implement of labor? There's a way, after all, in which this situation itself troubles assumptions we commonly make about notions of care given conditions of global capitalism. Rather than be abandoned after the accident, a great deal of expertise, technology, and money is leveraged to care for these workers and repair the damage.

#### Conclusion: creative destruction

The surgical process itself entails a great deal of destruction, dead tissue is scraped and cut away, scar tissue is removed, skin and muscle from elsewhere in the body are moved around to cover defects and restore blood flow, leaving scars and voids elsewhere; as philosopher Catherine Malabou points out, destruction is no less a part of life than creation, in fact, life depends upon destruction (Malabou 2012). She gives the example of apoptosis, the cellular death that occurs when fingers are formed in utero—in order for the fingers to separate, the cells that originally connect them must die. “It is apoptosis that produces the interstitial void that enables fingers to detach themselves from one another” (Malabou 2012, 4-5).

It is not only apoptosis, however, that produces the void between fingers, as Kumar's story makes clear. I met Kumar on a windy spring day on the concrete pathway between the hospital and the hospital canteen/coffee shop. He is in his mid-20's, and that day his right hand was wrapped in fresh, white gauze. I bought some coffees, and we found a place to sit on the low

wall outside the canteen. He told me he had finished his BE (Bachelor's in Engineering) in the spring of 2015, but was unable to find work, so that autumn he took a job working with a rolling machine at a rubber factory in his hometown, which is about 90 kilometers from Coimbatore. His plan was to get some factory floor experience and then hopefully move up to an engineer-level post. However, after only 6 weeks, while on the night shift one night in October, his gloves got caught in the roller and pulled his right hand in, crushing all four of his fingers. Our interview took place in February 2017, 18 months after the accident, and he was about halfway through a series of surgeries to reconstruct his fingers.

After debriding the wound, and putting k-wires in the broken finger bones, the surgeons had begun with a pedicled abdominal flap. This is a fairly common procedure for serious hand injuries at Asha and involves the injured hand being sewn into the patient's abdomen. A sort of "pocket" is created through an incision in the abdominal skin, the hand is inserted and sewn in. Patients typically remain in that position for 3-4 weeks (during which they are usually discharged to go home) in order to allow blood supply to establish to the injured hand and tissue, and to give time for the flap to "take." Then the hand is cut out, along with a flap of abdominal skin. In Kumar's case, this flap of abdominal skin went over his still-healing and grievously-injured fingers, like a mitten. Following this, a series of additional surgeries was needed to, one by one, separate the fingers. To create the void between the fingers, cells must be separated, here, by a scalpel. And to some extent, the surgeons articulate implicitly the inextricable relationship between form and substance. ("In order for a hand to be a hand, it must look like a hand.") The destructive plasticity that happens as the scalpel cuts apart the reconstructed fingers, creates a new hand, which can only be a hand if it both "looks like" and "functions like" a hand; form and function are not easily separable and both also speak to the relationship between the

body/productivity and future life prospects. Indeed the hospital's motto is not "we reconstruct hands" but rather, "We Reconstruct Lives."

Meanwhile, Kumar pulled out his phone to show me the before and after pictures from his chart, which he had photographed and kept on his phone. He took me through the accident and initial surgery, and then the several follow-up surgeries he had so far had. "They've separated two fingers so far," he said, beginning to unwrap the outer coverings of his bandage. Underneath the outer gauze, his middle two fingers were still bandaged up, but his pointer and pinky fingers, quite bulky and swollen, with no visible knuckles, or, of course, fingernails, had been cut free. The accident destroyed his fingers; the surgery, in its attempt to reconstruct, also destroys. In addition to separating the fingers, Kumar will have a large scar on his stomach, from where they took the skin.

"We can always do further procedures to improve the cosmesis, later" said Dr Manoj. Dr. Manoj had a slightly different take on the relationship between form and substance compared with Dr. Srinivasan, but I think in fact they are essentially very similar. Dr. Manoj told me he values function over form in the patients that he sees--and that they do, too:

With the hand, I would put function over form. My priority, I would put function over form. At least for the type of patients that I treat. For example, a poor laborer, I would put function over form. ...[this means] retaining stability, mobility, and strength. So I would keep all these three in my mind when I reconstruct. I would want the part to be stable, I would want it to be mobile, and I would want it to be strong. So these are the ways I would go about reconstructing. I don't look at it as a wound, I would look at it as, the person using the hand again. And, position [is also important]. See, if you want the hand to work, the thumb must always look at the fingers. So if I have got a hand like that (holds up hand to show thumb pressed up against forefinger, so that the four fingers open and close, but there is not a thumb opposite), which moves, which is stable, but not in position, it doesn't work like a hand.

Although he stresses the importance of function over form, he also indicates that form and function are, to a certain degree, inseparable. The essence of what a hand is, for the surgeons, is

the ability to grasp and grip, and the only way it can do so (the only way it can "work") is if the form adheres to certain parameters—"the thumb must always look at the fingers."

There is a wide, wide range of results that are deemed successful, by both surgeons and patients. Kumar remained relatively cheerful; when he's not having to come back and forth to Coimbatore for follow-up care or additional surgeries, he spends his time studying for the banking/civil service exam and is able to do most things by himself--he can eat with a spoon, dress himself, etc. using his left hand. He is not yet married and his father is still working so the family manages just with his father's salary.

## Chapter Four

### Futures, care, and capitalism

In the Gens Manifesto (Bear et al 2015), Anna Lowenhaupt Tsing writes about “salvage accumulation,” to consider the ability of capital to convert things and skills produced in non-capitalist processes into capitalist value and wealth. Oil and coal, capitalist goods par excellence, are made through ancient geological processes over which capitalism has no control; using them to generate wealth is then, in Tsing’s terms, salvage accumulation. As another example, “where factories employ women workers to sew, knit, or process food, owners rarely train their employees; they assume that women already know how to do this work from growing up as women. It is salvage accumulation to harvest the value of this training in making capitalist commodities” (Tsing 2015). The ability of the hospital and the surgeons to benefit from the injured bodies of the workers, to remake these bodies as productive in the service of medical expertise at the moment when they are unable to be conventionally productive, is a form of salvage accumulation. Yet, it is not wholly extractive either. The surgery, the ability to access it, the care and resources it mobilizes, and the possibilities it (sometimes) enables are also things for

which patients and families are often profoundly grateful. This gratitude, on the other hand, is also in part related to the ability of the patient to return to work, often at the same machine in which they were injured. Care enables violence; violence begets care. Throughout the dissertation, I attempt to hold these seemingly-contradictive poles together, arguing that the work of yoking them together is part of the complex, ambiguous process of producing capitalism's appearance as a coherent system.<sup>36</sup>

In this chapter, I want to further excavate the contradiction I identified in the previous chapter, in the simultaneous violence and care of surgical labor. Here I shift focus from the hospital and the labor of the surgeons to what people told me about their recoveries and their possibilities for the future. The most salient feature of these conversations was a focus on the future viability of the family and the way that that hinged upon either a person's ability to go back to work, or a family member to step into the role of breadwinner. The thin line between work and care is revealed here, as to work is often framed *as* to care. I turn to Marxist Feminist approaches to the social reproduction of labor to excavate the ways in which capitalism is produced in and through care and caring relations.

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<sup>36</sup> “Ethnography can trace the processes through which complexity and contingency are often so effectively mustered into capitalist projects, as well as the accumulation, dispossession, and retrenchment of intersubjective difference that reliably accompany them. To use ethnography in this way allows us to attend to capitalism's simultaneity—uneven, heterogeneous, and contested, yes—but at the same time proliferative, powerful, and (dare I say) systemic. Holding these analytic poles in tension, as equally empirically true in the world, asks us to account for their copresence. How is it that both can be true? The short answer is that, like any project, capitalism's coherence and momentum take work; here, this means the linking and aligning of multiple messy projects through which systematicity can emerge” (Appel 2015).

### Ayyappan

We return here to Ayyappan, who we met in the introduction and in Chapter 3. He had been injured in Sivakasi, and, after a long journey by car, arrived at Asha Hospital, unconscious and with, as he said, “not even a drop of blood left in my body.”

The operation to reattach the amputated pieces of his hand, containing three of his fingers, commenced. The surgery lasted about 6 hours, and Ayyappan spent four days in the ICU and eight days in the general ward before being discharged. He and his brother, who had stayed with him in the hospital (his wife remaining with their young children in Sivakasi) returned home, making trips back to Coimbatore for follow-up; yet the cost of these return trips was beginning to be too much for the family to bear, and Ayyappan, his brother, and their families were beginning to weigh the value of these return trips against the various future possibilities and precarities they were facing. This came out most clearly when they were talking about the availability and necessity of physiotherapy (physical therapy in US parlance). The surgeons spoke often to me, and to their patients, of the paramount importance of physiotherapy. Dr. Subramaniam, the head of the plastic surgery department, told me that he begins encouraging patients to be diligent with their PT in the operating theater itself, during the surgery. In the case of smaller, shorter, and less emergent surgeries, the patient is most often conscious but under a nerve block that prevents any feeling in the limb under operation. Dr. Subramaniam said that often, as he’s suturing, once the crux of the surgery is over, he will begin talking to the patient about the importance of follow up and of PT. “I’ve done my part, and now the rest is on you, I say. The surgery is only fifty percent. It’s not magic. Fifty percent is the physio, so it’s very important, or the body part in question will not recover.”

Ayyappan and his brother confirmed receiving this message. “Even now when we met him the doctor said, you have to do the physio properly, but we don’t have the resources (*vacathi*

*illa*). I have to stay at the hotel. For one physio they are asking 300, and if we stay out, for one day they are charging 950 for the hotel. Also we have the food expenses, so it will take around 1500 per day. So calculate this for 3 months.”

His brother interjected: “Calculate even for one month. Not even one month, ten days! 15,000!”

Ayyappan nodded, “Ten days is 15,000. I’ve been going to physio in Sivakasi but it’s not that good. The doctor said the physio you’re doing now is not enough, you have to work more. Only then your fingers will become a little bit flexible. Now my hand has become very tight (*irrigiyirichu*).”

The external fixators had been removed one month after the injury, but his hand was very stiff. His middle, ring, and pinky finger were curled in and he could neither extend them nor move his metacarpophalangeal (MCP) joints — the joints where the finger meets the palm. His forefinger and thumb were stiff too and he was in pain.

“You can’t do this?” I asked, bending and straightening my fingers.

“I cannot. So I have to do the physio very well. You have to continuously do the physiotherapy, this should be your main work, the doctor said.”

Ayyappan recognizes the importance of this, indeed the pain and stiffness in his hand are a constant reminder, and he knows he needs a more functional hand to return to work. Although the hospital he goes to for physiotherapy in Sivakasi is well known in that area, he says they do not have hand specialists. So he, and his family, have to calculate the trade-off between potentially less effective PT and spending beyond their means to come back again and again to Coimbatore, with, of course, the risk that, even with the PT at Asha, the hand may not regain function. Ayyappan’s brother said, “In Sivakasi we need not pay for the room or food or things

like that. Here if we come to Asha for the bus expenses it will take around 1000 for two people, for one person 500. If I stay in Coimbatore everything will be in trouble.”

“Because he also has two children, and he has to take leave from his work to come,”

Ayyappan explained, gesturing towards the complex webs of familial care and obligation at play.

“Is the owner paying for the physio too?” I asked. The owner had covered the cost of the surgery and hospital stay.

They hedged a bit, “He will give, and he said we’ll see in the salary, don’t worry. Today we came, he gave us one thousand, but that was enough only for the bus, and the other expenses we have to bear. So we took two thousand as a loan.”

“You have your own home?” Jisha asked.

“Yes. It’s our own home, but it’s not very big, it’s very small, 10 by 10. Of everything given from our grandfather’s time, this is the only thing that’s remaining now.”

As other anthropologists have attested (Han 2012), the intertwining of love and debt is one of the ways in which intimate, caring relationships are forged, expressed, and exemplified. The uncertainty of Ayyappan’s recovery, what that recovery would look like, what abilities would be left to him, what possibilities for work and care would animate his future, these questions hung in the air throughout our conversation. He and his family are not yet in dire straights, they have family support, they have the promises of their employer, but this sense of uncertainty, of whether the hand will move again, of how long it will take and how much it will cost, worries them both. Many anthropologists have written about the way that discourses about the future are framed by imaginable possibilities in the present, and that, what is considered desirable or imaginable is tied intimately to structures of power and normativity (Edelman 2004; Duggan and Muñoz 2009; Ahmed 2010; Berlant 2011; Povinelli 2011). We see a kind of “cruel optimism”

(Berlant 2011) in these stories, in that the desire to return to productive labor in order to successfully reproduce the family subjects one to violence and exploitation that make the achievement of this version of the good life difficult if not impossible. On the other hand, my interlocutors were not critical of this impossibility, rather they ardently desired a return to or an achievement of that life in the face of odds.

We saw in the previous chapter the way that the surgeons' expertise depends upon a supply of traumatized bodies. We considered the contradiction that this very supply produces medical knowledge and material benefit for the surgeons and the hospital, yet it also produces access to care and possibilities for the patients. S. Lochlann Jain writes about the way that uncertainty is mobilized as medical knowledge, particularly in terms of randomized controlled trials and the promise that they will reveal the efficacy and effectiveness of cancer treatments; Jain is critical of RCTs, while not dispensing with the usefulness of the approach (S. L. Jain 2013, 221).<sup>37</sup> In the previous chapter we saw the ways that a voluminous supply of trauma is converted into medical knowledge (see also Shapiro 2020). Even when an individual outcome is unsuccessful, the surgery is still framed as worthwhile because it allows the surgeon to practice and hone his craft. Like Jain, in spite of this critical view, I am not arguing that the surgery is a bad thing. Rather, in this chapter I seek to show the regimes of care and uncertainty that enable both factory wage labor and the work of the hospital.

These forms of care reproduce and depend upon the generative labor of families in, as Dwaipayan Banerjee reminds us, "*already fragile worlds*" (Banerjee 2020, 4). Banerjee uses the analytic of endurance to frame skepticism and uncertainty in the wake of a cancer diagnosis that

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<sup>37</sup> It is not that Jain wants us to discard the usefulness of RCTs: "I'm not arguing that such an approach doesn't hold the potential for finding cures for cancer. However, this method comes with costs too often hidden behind the commonsensical notions of what data mean, how results should be understood and traded, and how comparisons should be made" (Jain 2013, 221).

intercedes, not in a comfortable and ordered life, but in a lived reality that is already shot through with precarity and doubt, in which material circumstances, social ties, and institutional structures are already unstable and untrustworthy. Banerjee charts the way that care is practiced and considered in such situations. Similarly, in this chapter I consider the forms of familial care that intercede in the unpredictable but not unexpected event of the accident, the kinds of considerations and doubts about social relations and futures that arise in its aftermath, and the ways that these are framed around the social reproduction of labor.

“Do you keep thinking about the accident?” I asked Ayyappan.

“Yes, it’s a bit difficult,” he said quietly.

His brother elaborated, “For whoever it happens, they will worry. He’s now at home, he can’t go to work, he can’t take the children to school. Our family is struggling. Before the accident, if I had some work, he would pick my children up from school and bring them home, but now it’s not possible. And he has small children. He can’t even carry water by himself.”

The crisis caused by the injury is framed here by his brother at the interstices of productive and reproductive labor – they are intertwined and Ayyappan is now unable to do either.

Ayyappan said, “Even my wife may think, she won’t say, but in her innermost thoughts, how much trouble I am facing, how much I am having to struggle (because of him). I have to do all the works at home, like that she may think. Will she think like that or not? Normally in a home, two people divide the work among themselves, but now, she has to manage everything, the big work and the small. If I could fetch the water by myself, that would be helpful, so she could do the other work in the home, but now, both the works are done by one person. So, what? I myself feel that I am not able to do anything, every morning, even my small child will be crying and I can’t even pick her up and carry her outside.” Ayyappan’s concerns about the

effects of his injury are articulated through uncertainties about the stability of his most fundamental social relationships.

“*Anneeram athu feel pannu vendiyathaa irukkula?*”, his brother said. “At that time, who would not feel badly? The injury from the machine isn’t a big thing, but these kinds of things are difficult in the heart. If we leave the house, people will say, *unamanavanga kanchi uthikalaam annaa intha maatiri irrukiravaangakkitha kashtum*. (This is an idiom which translates roughly as “Even if we may give a bowl of porridge to a disabled person, it will still be difficult for them” and is an expression of stigma against disabled people — that they will forever be dependent and that this dependence is a burden). When people speak, and we hear that, it is difficult.”

“What does your wife say?” I asked.

“She is very supportive. Even to come to hospital today it was her force, you need not worry, we’ll face everything whatever they say, you go to hospital and see what they say, she sent me with those good words. Even if we have to give our things (jewels) for a loan, don’t worry, we’ll go with the treatment, she said. Being like this for a long time is difficult, so you have to heal soon.”

Ayyappan asserts that his concerns about his wife’s “innermost thoughts,” are belied by what she actually says; her words are those of supportive wife, yet still he wonders. And, in his recounting of what she said, her encouraging him to seek treatment is, at least in part, to alleviate the (we can assume material as well as affective) difficulties of “being like this for a long time.” At this stage in the recovery, much remains unknown; various possible futures expand out from the moment of injury. In these possibilities, the ways they are imagined, and which ones tend to come into being, we can see the traces of a range of powerful structures and ideologies. In these imagined futures, as Ayyappan and his brother explain above, the twin exigencies of productive

and reproductive labor, the ways in which they enable and produce one another were often expressly articulated. I turn to a consideration of the social reproduction of labor to understand further the forms of care and the adjustments in social roles that cropped up as part of the labor of reconstructing the hand.

### Social Reproduction

A focus on the social reproduction of labor reveals the ways in which productive and reproductive spheres of labor are twinned and mutually dependent (Dalla Costa and James 1975; Federici 1975; Fortunati 1995; Mies 1986). Many scholars have noted that social reproduction reveals a contradiction or “crisis tendency” at the heart of capitalist systems. “On the one hand, social reproduction is a condition of possibility for sustained capital accumulation; on the other hand, capitalism’s orientation to unlimited accumulation tends to destabilize the very processes of social reproduction on which it relies” (Fraser 2016, 100). That is, in order to go on producing surplus value, capitalism depends upon that uniqueness of labor power *as* commodity, the only commodity, in fact, per Marx, that can produce surplus value. And yet, because of its drive to extract every last drop of labor power from the worker, capital risks literally killing the worker and hence being unable to go on expanding. This tension is a primary site of class struggle as well as the root of several crises of capitalism over the past two hundred years (Fraser 2016).

Social reproduction theory takes both the production of goods and the reproduction of the worker together as integrated parts of the capitalist system. Because capitalism depends at its basis upon the reproduction of labor, the idea that the spheres of production and reproduction are meaningfully separable is an illusion. Rather they are both constituted by and constitute capitalism (further proof that capitalism, at its heart, contains the seeds of its own undoing). For scholars of social reproduction, this means both a political and intellectual focus on forms of

labor that are invisibilized and naturalized by a narrow understanding of the “economic” as relating only to those most obvious spheres of waged, productive labor.<sup>38</sup> Importantly, building on the work of earlier feminist scholars of social reproduction, Battacharya and others insist that a wider focus than the family is needed to understand social reproduction more fully (Battacharya 2017). The family is a site of a great deal of study and interest, for good reason, for it is a primary means of reproducing labor. However, education, healthcare, laws and policies, communities, childcare, eldercare, public transportation, these are all systems that produce the worker and, hence, value.

By considering the care – medical and familial – that takes place in the wake of a factory accident as a form of reproducing labor power and the working class, I explore the faint line between work and care: care is recognized as a form of embodied labor, and to work, frequently, *is*, to care. As one surgeon said: *how will he take care of his family if he cannot work?* Or, as Karl Marx put it, “Labor-power is a commodity which its possessor, the wage-worker, sells to the capitalist. Why does he sell it? It is in order to live” (Marx and Engels 1978, 204). The questions that arise in the wake of an accident, as we have already seen, are frequently about the future possibilities of the family. If the accident is a constitutive part of labor itself, caring for an injured worker tells us about the stakes of reproducing labor power, as well as the social relations and inequalities that are produced in the maintenance of this system. Everyday acts of care are at once an expression of love and obligation and a systemic means of producing and reproducing inequality. Reconstructive plastic surgery emerges as a technological fix to the tension between

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<sup>38</sup> As Susan Ferguson writes, social reproduction theory, “insists that our understanding of capitalism is incomplete if we treat it as simply an economic system involving workers and owners, and fail to examine the ways in which wider social reproduction of the system – that is the daily and generational reproductive labor that occurs in households, schools, hospitals, prisons, and so on – sustains the drive for accumulation” (Ferguson, quoted in Battacharya 2017, 2).

production and reproduction, suturing the body of the worker back together so he can return to the “productive” sphere. Capitalism does not exist outside the bounds of caring labor but rather is made in and through these very acts of care. Yet even these surgical techniques are dependent upon other, unremunerated forms of labor to succeed.

### Nagarajan

I turn now to an extended vignette about a man called Nagarajan and his family. In recounting the way their story unfolded, I draw attention to the contours of care, bodies, reproductive and productive labor, and the future that emerged.

Nagarajan is 61 years old and has two daughters. He lives with his wife and youngest daughter in a family home in Ganapathy Pudur, a small working-class neighborhood in Coimbatore. They are of the Kullalar caste (classified as OBC), traditionally potters. When Jisha and I interviewed him, his eldest daughter was at home as well, having come home for her first birth – she had delivered twins by C section just the week before. She and the babies were resting in a back room; over the course of our interview, Nagarajan's wife, Keerthana, went in and out to check on and care for them, and many neighbors and well-wishers stopped by with gifts for the new mother and babies, and food for the family. Jisha and I, having learned about the twins in the course of arranging the interview, had stopped to buy sweets and baby clothes for the family on our way, and I had brought an old rattle of Wesley's to give them as well.

When we arrived, Nagarajan's youngest daughter, who works as an engineer for a rideshare company, set out chairs for us and made coffee. Although she went in and out, attending to other household work, she and her mother for the most part sat through the interview, chiming in from time to time and helping to tell the story of Nagarajan's accident, his recovery, and the effect it had had on the family. They are a lower-middle-class family, they own

their home, although it is small; they sent their daughters to private schools and colleges, and arranged a promising marriage for the eldest (she and her husband live in another area of Coimbatore), but, it was a struggle to do so. Both Nagarajan and Keerthana had to work very hard to make ends meet, taking loans, working eight to twelve hours a day; as Keerthana said, “We have had to come through many struggles in this life” (*vaazhkaila evallo pooradanamo avallovumee pooradiyaachi*).

Nagarajan had been born and brought up in Coimbatore and he worked for twenty-five years at Ramakrishna spinning mill, then he shifted to a flour mill to work as a manager, ordering spare parts and raw materials, overseeing the other workers. After a few years, that mill closed and he shifted, some four years before we met him, to a company that makes plastic and metal items using injection molding machines. After about three years in that company, he was badly injured one day when his glove became stuck on a pin inside the machine he was working with. Unable to withdraw his hand in time, it was caught in the machine, crushing the middle, ring, and pinky finger on his left hand, injuring the palm and bones in the hand itself as well. “While taking the previous piece from the machine, my glove got caught on the pin inside the machine, and I didn’t notice. I turned the machine back on, when it went on, my hand got pulled inside. When I was trying to take my hand out, the die closed...it cracked all my bones...When I took my hand out and looked, all the bones were cracked, it was all cut.”

“What kind of machine was it?” I asked.

“It’s a molding machine. It’s automatic. Once we put the metal in, and switch it on, it will bring it into a shape, it molds it automatically and then the completed piece will fall down. But some pieces get stuck inside, in that case, you have to put your hand inside to take the piece out. What happened to me is I didn’t realize that my glove was stuck inside the machine, on a pin.

There are four pins inside. My gloves were stuck on those four pins. I switched on the machine, but when I tried to pull my hand out, I couldn't, it was stuck. Right away I pulled, but my hand didn't come out. The die closed. It all happened in one second."

His daughter emphasized, in English, "it closes in a *fraction* of a second."

When it happened, they did not go immediately to Asha Hospital, rather, they went to a nearby clinic for some first aid, and then to another large Coimbatore hospital. However, there they were told that the orthopedic surgeon would not be in for several hours and they were advised to go to Asha instead. The accident happened around 2:30 in the afternoon; "we had to go here and there, and after taking x-rays and everything, it was almost 5 before we reached Asha."

"How was the pain?" I asked him.

"The pain was unbearable, I couldn't bear the pain. So I was given injections in both the hospitals."

At that point in the interview a gas cylinder delivery man came in, rolling a new cylinder. Keerthana got up to pay him and to direct him to switch out the empty cylinder. The gas cylinder is a banal and unimportant detail, but it serves to illustrate the texture of everyday reproductive labor, the vast network of people and things that are necessary for the reproduction of a family. Nagarajan continued, "We got there at 5 o'clock, and there were many formalities, the operation started at 6:30 or 7, and was over around 11pm. Then I was shifted to the ICU for recovery." Nagarajan was accompanied to the hospital by his wife, his son-in-law, four co-workers, and the factory owner's relative, who was looking after the company while the owner was abroad.

"They didn't make me to sleep, but put anesthesia in my hand (a nerve block). The feeling alone I couldn't feel, but I was awake. Then the surgeon said the nerves are all cut, 70

nerves are cut. (his daughter added, “minute nerves.”). We’ll do the plastic surgery, and then you have to do the physiotherapy, only then the hand will get well soon. It will take a long time to get cured, because you are a bit old, and you lost a lot of blood, they said. So for six months daily I went for physiotherapy there. I went for six months, daily. After a few days another doctor came to take another x-ray to check the condition. They took two x-rays. I had some shoulder pain, I couldn’t lift my hand, so they took an x-ray of my shoulder and they said that the disk had slipped a little bit so I should consult a bone doctor. Ajay doctor told me I should see a doctor outside. I went to the bone doctor, he told me I should do some physiotherapy exercises daily, I was doing those for one and a half months, and I was given tablets to intake. While this was going on, we were on our way to our native place, at that time I had a heart attack suddenly.”

Here Jisha and I paused, unaware that he was also recovering from a heart attack. His daughter added, “Actually the doctors didn’t say, you might have an attack. We saw many doctors, the nerve doctor, and again the bone doctor, we saw them all, but they didn’t say he would get a heart attack. After that only we come to know he’s having a heart attack. A severe heart attack. The first attack they didn’t know, a mild attack, but this was a severe one.”

Keerthana filled us in on a somewhat complicated story – having had doctors at both Asha and another orthopedic clinic brush aside his persistent left arm and shoulder pain as a side effect of the injury, on a trip to their native place of Sathy, Nagarajan started to feel ill on the bus. They visited a medical shop and then, finally, a hospital in Sathy, where he had an EEG and was diagnosed with a heart attack. An ambulance was called and they returned to Coimbatore, to Kuppusamy Hospital, a private multispecialty hospital. She said, regretfully, “If we had gone to the private hospital [earlier], the doctor would have seen all the symptoms, the shoulder pain, and would have said something, so we could have planned accordingly. But none of the doctors said

anything about all these symptoms earlier, the nerve doctor, the bone doctor, the neuro doctor. So then it was one Sunday, we went to our native, and he got a major attack. Actually he had a small pain, a small hole, but due to the long travel, four hours travel, he got two more blocks.”

Here we see the way that the machine injury exists on a continuum alongside other bodily and social instabilities. Like Banerjee’s interlocutors, Nagarajan and his family expressed distrust of the medical institutions that had missed this diagnosis, that were too quick to dismiss his pain (Banerjee 2020, 6). The story of the injury is also not easily separable from other bodily fallibilities; we see above that recounting the injury narrative leads seamlessly into the disclosure of the heart attack. In many other interviews, as well, the specific machine injury was folded into an environment in which bodily pain and instability were common features of the texture of everyday life. Many if not most interlocutors told us about a friend or neighbor who had also been injured, recounted the way that their work life had already once been interrupted by the need to take care of a sick or injured family member, or complained of aches and pains that were not related to the injury. These are all examples how the injury is made sense of in different ways, in chapter 1, as we saw, in its coincidence with other timed events and here, as part of a longer life story that takes place against an already precarious backdrop.

Keerthana has also been doing machine work her whole working life, since her children were young. She works at a small press machine in a workshop nearby, making filters for TVS vehicles, but her work was interrupted by the need to take care of Nagarajan after his accident. “We had to pay for all that six months therapy, so I took leave from my work to look after him, and again I rejoined, but then he had his angio and again I took leave. And then for my daughter’s delivery now I am again on leave. People who are working with me, they are all getting 8000 to 10000 (monthly) for salary, but because I am often taking leave, I have less

experience, so I am getting only 6000.” Here Keerthana articulates very clearly not just that she has social obligations to perform unremunerated and undervalued forms of reproductive labor, but that these obligations are in fact also part of the way that her productive labor is itself undervalued. As Mezzadri and Majumdar write, “the combined productive and reproductive burden women experience during their time in the factory also devalues their paid work experience...In short, women’s engagement in reproductive activities has a direct impact on the way and degree to which they are exploited on the shopfloor” (Mezzadri and Majumder 2018, 8).

“When you take leave, will the owner be willing to take you back?” I asked.

Keerthana replied, “They will take, but the salary will be less. When I asked about the raise of the salary, they said, look, you were on leave for all these days so the production from your side did not increase. We’ll think about the raise for your salary for next year. But next year also some commitments will come so I again won’t get my salary raised.” In effect, capital benefits multiple times from Keerthana's labor. First, from her productive labor producing parts for TVS vehicles; second, because she is unpaid for the reproductive labor she does in addition to this to support herself and her family; and again, because the reproductive labor she has to do for free serves as a justification for paying her less on the workshop floor. Furthermore, when she anticipates that other things will come up in the future that will again prevent her from working fulltime, she indicates the way that a precarious future is anticipated, the way that future calamities are already being hailed and made space for.

Nagarajan now has taken over many of the household works, while Keerthana and his daughter go out for work. “I can do all the small small household works, carrying water, folding clothes” he said. Yet the bulk of the more intensive household labor, cooking, cleaning, washing clothes, remains the second shift labor of his female relatives. “He could do some small work

[outside] too, instead of sitting idle,” Keerthana complained. She told us she had asked him to find work in a department store or a shop, somewhere where the work was lighter but a small income would still be helpful to them, to help them manage the “*kai celavu*,” the petty expenses (literally the “hand costs,” similar to the English expression, “cash on hand”).

Nagarajan said he had some plan to go back to work once he feels a little more stable, “Once I have my strength back, I will go.”

“Back to machine work?” I asked.

“Not machine work,” he said, “work in the drilling machine.”

“Isn’t that a machine?” I clarified.

“It’s not like that, it’s a different kind of machine. The other machine is a die machine, where there are many procedures to do, but here, with a drilling machine, it’s not like that.” He implied that a different kind of machine work would be lighter, and hence better suited to his changed body, and his changed abilities.

Keerthana, however, interrupted, shaking her head, “Anyhow to work in the machine you need both hands.”

Nagarajan replied, “No, no, no. For that many options have come now. I went there last time, I saw, I would be able to do it.”

Jisha, attempting to smooth over the slight disagreement said to Keerthana, “He’s very bold, isn’t he?”

But Keerthana was adamant about her own embodied knowledge of what it took to work with machines. “I too work in the machines,” she said, “I *know* that we need two hands to work in the machine. One hand to operate the switch and the other hand to insert the piece and take the

piece out. And vice versa. So obviously we use both hands. For him he doesn't have one hand, so where is he going to work (*ivarukku oru kaiyee illa, apparum enge pooythu veelai ceyvaaru?*)”

Nagarajan was quiet, looking down at his hands in his lap. Keerthana sighed and said, “don't worry, again take two more months to rest, we'll think about it after that.”

“Yes,” agreed their daughter, “we have to decide later.”

The interface between bodily ability, productivity, and care is here laid bare. The surgery left him with both hands, but one that is stiff, painful, and not as functional. The simple fact is that, given the structures that frame his experience, Nagarajan needs two hands to be able to work, which is to say, to be able to care for his family in the way that is expected of him. These expectations are crafted out of a particular form of productivity demanded by capital for a person's subsistence, but they draw upon and reinforce social and cultural expectations as well, about masculinity and care. Even the kind of rest that Nagarajan has access to is related to a gender hierarchy; as Lakshmi said (chapter 1), it's different for men because they can take full rest, while an injured woman is still responsible for her family's care. In the previous chapter we read about how the surgeons reconstruct based upon a perception of what the patient needs their hands for. Yet, despite the doctors' insistence that they are not miracle workers, despite their trying to temper the expectations of the patients for what kind of function they'll have, the multiple costs of the surgery spiral out into an uncertain future. Although Dr. Manoj said it was cheaper to have a hand than not to have a hand, here we are confronted more directly with whether that is always the case. A year and a half later, Nagarajan is unable to work and in debt from his multiple medical crises. This is the cost of using each trauma case that comes through the door to practice for the next – in the aggregate that strategy may save more lives and livelihoods, it may enable futures that would otherwise have been foreclosed, but it does not

come without a cost. For many of the people who receive such surgeries, they don't regain function, and although in theory they can “just, just shift his job and still be useful to the family” (Dr. Manoj), it's clear at least that Nagarajan does not want to do that, and many are not able to. The shift in his idea of himself is difficult, but it is also in part precisely because of the surgery that he has to go back to work. Yet, if he doesn't return to work, what use is his (reconstructed) hand?

With the lens of social reproduction theory, the role of the surgery becomes yet more complex. On the one hand, the surgery itself and the entire hospital ecosystem are part of the social reproduction of labor: the surgeons are quite literally reconstructing the bodies of workers, with the explicit end goal that they will be able to return to work. Yet when faced with the fact that many people are *not* able to return to work or, if they can, they face a severe pay cut, we have to ask after all what is the purpose of these surgeries? One man we spoke with was injured too badly to continue to work in machines, but his company employed him to perform odd small jobs, loading and unloading supplies, running errands. When he worked with the machines, he made 20,000 INR per month, enough to support his small family of four. Now he makes only 8000. His wife has had to find work, and they've shifted his children to government primary school rather than private. We see again how precarious the position even of lower middle class working families is. We saw in chapter 2 compelling evidence that people want their bodies to be whole, that there is absolutely a good in reattaching limbs and digits because of the emotional and social toll of losing them, both in terms of a sense of self as well as due to the social stigma of disability. And yet, I also argue that on some level the surgeries (willfully or not) function as a means to make working bodies productive again, this time in the service of medical knowledge,

expertise, and reputation, precisely at a moment when they are unable to be conventionally productive.

This is one way that forms of caring labor are yoked to capitalist imperatives to be productive – capitalism itself enables the expertise of these surgeons, and the surgeons perform essential reproductive labor for capital. This is not to say that the doctors do not perform care, nor that it would be better if people did not have access to these surgeries. My point is the opposite: the fact that care, nurturing, and benefit are in a mutually constituting relationship with an exploitative labor system shows that care does not happen in spite of capitalism, capitalism happens in and through relations of care.

Although they did not find the physiotherapy at Asha to be very effective, the family has found visiting the cardio physiotherapy department at Kuppusamy Hospital to be better both for his hand and his general health. “In reality we won’t get back to one hundred percent, but he’s back at sixty percent,” Nagarajan’s daughter said. Yet follow-up care, as with many other people we spoke to, is a luxury they cannot always afford, in spite of their acknowledgement of and the surgeons’ insistence on its importance. “We went for two months, but now we are not going because the cost is too high. We have to get a car, per day 300 rupees, the doctor fee is only 150 for doing the physiotherapy but the transport cost is more. So, we stopped.”

We asked about whether or not he had had any financial help from the company, but the owners provided just 25,000 rupees towards the cost of the initial surgery. “The company they didn’t do any insurance, ESI, PF, none of that was available. They just gave us 25,000, after that we only paid the remaining amount.” Nagarajan estimated that the hospital stay had cost approximately 100,000 rupees, but that, because they knew one of the doctors on staff personally, 25,000 had been deducted from the bill. “25 the hospital gave, 25 from the company,

the remaining we paid. And also for the daily physiotherapy everything we paid. The company they didn't give anything, just that 25,000, that's it."

Here we see very plainly that the cost of caring for the laborer, even in the wake of an injury sustained at work, is easily transferred from the factory owner to his employees and their family. The "invisible economies of care" that exist to sustain the worker at the worker's own expense, include the literal process of helping the worker, here, recover from the embodied cost of labor itself (Shah and Lerche 2020). We can see here, too, the way that labor policies and their uneven enforcement produces this system as well. Workers have few legal recourses to effectively demand recompense from owners; rather they are forced to rely on the goodwill or sense of social responsibility of the owner. In short, on whether or not the owner cares for them. As many workers told us, they can't expect that the owners would care. Selvaraj told us he was glad it was him and not a worker employed by him who had been injured. "Definitely I would have helped them, because I have humanity (*manithaapam*). But I am happy that it didn't happen to them, it happened to me. It didn't happen to the laborers, just to me, so I'm happy for that." Selvaraj here indicates that it is a sense of responsibility to those in one's social circle, one's sense of humanity that would cause an owner to care for his workers. Of course, in the absence of enforced legal requirements, an owner's humanity may vary considerably. We turn to this question more fully in the following chapter.

"I asked [for more]," Nagarajan told us, "but the company is under a loss. Two brothers started the company, as partners, but now the orders have been very less, so they said they couldn't help any more than the 25,000 that they gave...For one month we went to hospital in car, every day, and the cost was high." His daughter added, "Everything we only paid, no one

will bear that.” They took a loan to manage the expenses and are still paying it back. “My younger daughter is paying all the amount out of her earnings,” Keerthana said.

In Nagarajan's case, we have a fairly typical story of a husband and father who is injured at work. He is treated acutely, and his family bears that stress, the stress of the week in the hospital, of returning for dressing changes and removal of external fixators, of physiotherapy. But the recovery drags on; it's a year and a half later and he is unable to work. They've taken out loans to pay for his recovery because the company covered only part of the treatment, and now his daughter is paying back the loan through her own productive labor. Meanwhile the reason she was able to get an engineering job that can at least offer the possibility that they might get out from under this debt is that her father and mother worked eight- to twelve-hour days throughout her childhood, deferring some of the labor of childrearing to other (female) relatives, in order to pay for her private schooling and college. Although they are not the most precarious class of worker, the accident shows how tenuous their hold on sufficient resources to reproduce the family is. The way that their family shifted in the wake of the accident reveals the reproductive labor that buttresses capitalist production, as well as the ways in which these economies are underpinned by relations of love, care, and senses of familial obligation.

Most of the literature on the social reproduction of labor is relatively divorced from an exploration of the affective or phenomenological experience of providing and receiving life-sustaining care. Elana Buch's concept of generative labor is helpful here. She defines generative labor as “the wide range of moral imaginings, practices, processes, and relations through which people work together to generate life in all its forms” (Buch 2018, 6). Buch is interested in processes of care, of the everyday contours of caring labor as well as the various mechanisms by which paid caring labor for older adults is chronically and systemically undervalued and

underpaid, keeping those people who perform it (in the US, a largely feminine, minoritized, and often migrant workforce) both precariously employed and unable to perform the same acts of caring labor for their families. She joins other scholars of what are called “care chains” (Hochschild 2000; Yeates 2004; 2012), a concept which refers to the often-transnational links in the provision of paid and unpaid caring labor which allow another person to perform another kind of labor.<sup>39</sup> These chains depend upon and mobilize gendered and racialized notions of privilege and care. The focus in much of this literature has been on the contrast between the emotional labor demanded in these care chains and the relatively low pay and poor working conditions. The heightened emotional significance of “care” work serves in essence as a way to continue to devalue this labor. Elana Buch writes, “we struggle to accommodate the profound interdependencies that make life possible. Those who care for the most vulnerable among us become ever more vulnerable themselves. It is a system that consumes those who sustain it” (Buch 2018, 7). Social reproduction theory tells us of course this labor has to be undervalued, because in order for capital to extract the maximum surplus value, it must externalize as much of the cost of reproducing the laborer as possible.

Near the end of our interview, I asked Nagarajan, "What do you think about the future?" “What future do I have?” He said, “I’ve finished everything, I have my granddaughters, I’ll play with them. Hereafter, it’s their future. We are looking now for proposals for our younger daughter. It’s their future. Ours all it’s over.” The cycle of re/productive labor continues.

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<sup>39</sup> Hochschild’s classic example is of childcare, in which a wealthy woman pays a poorer woman as a nanny while she goes out to work. The poorer woman, in turn, leaves her children to be cared for by a relative or friend, and so on and so forth (Hochschild 2000).

## Chapter 5

### Labor law and responsibility

*“We people always suffer, the owners are always earning profit, while we workers remain in the same category, in the same difficulty (atee kashtam tan).”*

-Mathan Raj

#### Introduction

In the previous chapter, we explored the ways in which the accident and its attendant surgery can be read as a form of the social reproduction of labor power. Here we turn more directly to the question of labor law, the policies that frame these experiences, and the questions

of responsibility and liability. In other words, how is the process of social reproduction embedded in larger discourses about the care and responsibility of owners, and the laws that exist to protect workers? I do this through focusing on two stories in which the failure of owners to protect injured workers arose prominently and was related, in the words of my interlocutors, to the ability of owners to shirk broader legal requirements. I also explore the role of the hospital in deferring this responsibility. The hospital functions to sequester workplace accidents into the realm of an individual bodily crisis, obfuscating a more collective reading of these accidents as the predictable outcome of chronic conditions of risky labor. Yet the hospital is also more directly implicated in a system that defers liability for these accidents and allows owners to shirk their expected, if not legal then social, obligations to their workers. Two women I spoke to, both of whose stories I explore in more detail below, told us, though separately, that the reason they were brought to Asha Hospital rather than the Government Hospital was that, had they received care at the Government Hospital, a report would have been filed with the police.

We return here to Chitra, who we met briefly in Chapter 2. Our interview with her went well; she was open and eager to talk about her experience and explain her thoughts on the accident itself and her surgeries. As was common, her stories were supplemented by the memories and thoughts of her family members, including her elder daughter (who is doing her PhD) and her husband (who is a delivery man for a medical supplier, and himself had a road traffic accident while working not long back, from which he suffers continuing back pain and headaches). In what is now a trope in ethnographic research, however, the most interesting part of the interview happened after I turned off the recorder. Her daughter turned to me and said, in English, *she is being too soft, she's not telling you everything. She's spoken nicely about this company but really it is not a good company.* Chitra's husband nodded. I asked for more details

and her daughter elaborated, *First, they are paying her very little, only 1200 per week for heavy work* (eight hours per day, six days per week). *And also, they don't keep records properly.*

She told us that the company paid her mother in cash but never gave her a pay slip or a revenue stamp. Chittra broke in to say that she would sign in the company ledger book, but her daughter said *exactly, so the proof that she even worked there is entirely with the company* — Chittra has no evidence herself, so if she wanted to file a case against the company, she would have no records to submit, no proof that she even worked there at all. Chittra's husband added to these complaints, saying that they have yet to receive any benefit from the company. They (the company) paid for the cost of the treatment, but didn't give any additional compensation. *This is a lifelong injury, we can't get her fingers back, so is it right they just pay for the treatment alone?* Then, the daughter claimed that if they had gone to the government hospital, the doctors there would have been required to file a report about the accident with the police, which would have led to or at least made it possible for the family to file a case against the company to seek compensation; it might also have prompted a visit from a factory inspector. But instead the company owners took her to a private hospital, under the guise that the care would be better, but where they will *just treat her, take the money, and send her off*. I probed a bit more, Chittra and her husband both confirmed that they thought that was true, and clarified that it is not that they thought that the care at Asha wasn't good, but now they have no legal recourse, no official record that the accident even happened.

Jasbir Puar has added on to the work of scholars of biopolitics by arguing that, in addition to the right to let die and make live, there exists a right to maim (Puar 2017). She argues that it is neoliberal capitalism, and the nation-state in the service thereof, that makes certain bodies

available for maiming (and thus capacitates other bodies).<sup>40</sup> Here in these examples, we can see that people are made doubly bioavailable – available, first, for maiming by the machine and second, made “operable” in Lawrence Cohen’s terms (Cohen 2005), available for the surgical intervention. In this system, this class of workers, not the most precarious, is *not* let to die (Foucault 1990, 138), in fact, emphatically so. A great deal of resources and energy are mobilized to care for the injured worker rather than their being abandoned, as is common for more precarious workforces (Shah and Lerche 2020; Mezzadri 2017). Yet nor are they fully protected; their availability for, in Puar’s terms, “maiming” is crucial to the functioning of capital (Puar 2017). The broader ecosystem of the city with its legal regulations and limited factory inspector time, as well as the hospital and its caring mandate, serve to suture the system together, such that violence and care enable and uphold one another.

Vatsala was living in a small house in Mettupalayam when Jisha and I went to meet her. Mettupalayam is a busy town about a half an hour outside of Coimbatore, right at the foothills of the Nilgiri mountains; Vatsala lives in her house for free, in exchange for doing housework in the large house adjacent, the owners of which also own her small cottage. She has not returned to work at the betel (areca) nut processing company where she was injured about two years before we met her. Her son was 29 years at the time of the interview, working in a Xerox shop nearby, but her husband had left when her son was just six months old, and she raised him on her own. To support herself and her young son, she worked for 23 years with a machine that separates the raw betel nut from the shell before she was injured. In this machine, the worker loads the whole

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<sup>40</sup> “I am not diluting or diffusing the identity rubrics of disability by suggesting all bodies are disabled to some extent or another, or by smoothing disability into a continuum of debility and capacity. Quite the opposite; I am arguing that the three vectors, capacity, debility, and disability, exist in a mutually reinforcing constellation, are often overlapping or coexistent, and that debilitation is a necessary component that both exposes and sutures the non-disabled/disabled binary” (Puar 2017, xv).

nut into one end, the machine splits it, and the nut goes to one side and the shell to another. It was difficult work, she told us, “We have to pull and lift 75 kgs of weight, we have to stitch the sacks, we have to load it, everything we have to do.” When she first started, for a full day’s work (9am to 6pm, with a one-hour lunch break, six days a week, or seven if the work was urgent), she was paid twelve rupees per day; at the time of her accident, she was making 190 rupees per day (USD 2.5).

The accident happened when a bit of shell became stuck in the machine. Vatsala tried to use a stick to dislodge the stuck bit; she reported being unsure exactly what had happened. There are blades and moving parts inside the machine, that is why she had used a stick instead of her hand but, “while putting in the stick, I just felt something, suddenly, like a shock in my hand. When I pulled my hand out, I looked at it, and I couldn’t see the tip, everything was smashed.” The tip and first knuckle of the pointer finger on her right hand had been crushed, and later would be removed at the hospital. She now has a small stub there and, although it was painful for the first year after the accident, now only hurts from time to time, if she bangs it on something, or if she tries to make a tight fist. She went first, with the owner’s son, a co-worker, and her son, to the Government Hospital in Mettupalayam, but was transferred from there to Asha.

There are many themes in her story that we’ve seen before: the danger of “stuck” or uncooperative machines, the sensation of shock rather than pain at the moment of injury, the particular forms of precarity faced by women, especially, here, absent the financial support of a partner. However, in this chapter I turn towards another feature of her story that came up in oblique hints throughout the interview and finally was revealed entirely when I asked about it directly: namely, that she was taken to Asha Hospital under the auspices that the care would be better. In fact, she said, the true reason was that, had she stayed at the GH, a report about the

incident would have been filed with the police. The company owner moved her to Asha in order to avoid such a report. She explained how, in the immediate aftermath of the accident, she was taken first to the Government Hospital in Mettupalayam. “From the bus stand to the workplace it is three kilometers, and the GH is right there near the bus stand. From there we went to Asha. The bone was fractured, we can’t do anything here, and we have to file a police case, so take her to Coimbatore, they (the doctors) said. So they gave me an injection for the pain and tied my hand with a gauze. At the GH. Having tied it, we went directly to Asha.”

She cycled back to this moment — the transfer from the Government Hospital to Asha — several times throughout the interview, lingering on it, but in an unspecific way. A few minutes later she said, “So we went right to the GH in Mettupalayam, there they said, this is a police case, so you better take her to Coimbatore. Here we can’t. So we went straight to Asha. He paid the hospital expenses.”

“Who?” I asked

“The owner,” she replied. “But after that, he didn’t give anything else. Later he said, after getting cured, come back to work. But after my hand heals, why should I go back to the same work? While I was in rest, I couldn’t even afford food, and they (the owner and his family) didn’t turn back and look at me again (i.e. didn’t look after me, take care of me) so I said, I will not go back to work there.”

Here Vatsala reveals more clearly her feelings of ill-use by the owner and his family, feelings that will crystallize later in the story with their complete abandonment of her and their accusation that she cursed their son who would end up losing two of his fingers in the same machine, in a similar accident, three months to the day after hers. In the meantime, she told Jisha and me about her treatment at Asha, the fact that the surgeons were unable to salvage the finger,

and instead had to shorten and close it. She stayed in the hospital for one sleepless night and was discharged the following morning. The owner's son said they paid 35,000 rupees for the hospital expenses, but she never saw a bill; it is clear she does not trust them.

Towards the end of the interview, she again repeated the story of the injury and transfer. Whether because it was a claim she was building towards, or because she was worried I had missed her point given my passable-but-not-great Tamil skills, she reiterated:

“After I took my hand out, I saw it, that it was badly smashed. This nail was not there, the upper part was there, but the sides were fully crushed. I held it tightly like this and I came and said, my hand went inside the machine. So they took me to GH. Having gone to GH, they said this is a police case so we won't see it here. The police should come. If not, you can take her to Coimbatore. So they took me directly to Asha. They took me to Asha, paid the cost of the operation there, and after that they didn't even come back to see me. After the stitches were removed I went to my elder sister's house. After that, if my hand gets better, I thought I can return back to some work. It was like that. But he didn't give even 5 paisa.”

Finally, comprehension dawning, I asked directly about the police involvement, “Did the police ever come to file a report?”

“No,” she said. “That's why, when they said that it's a police case, the owner didn't want to stay there at the Government Hospital. So ok, we'll go to Asha itself. They told like that. At first they took me here, they thought that, just by tying the gauze it would be alright. But it was not so. After seeing me, they said that it's a police case, the police should come. That's what the Government Hospital doctors said. When they heard that it's a police case, they took me straight to Asha.”

“So you went to Asha for that reason alone?”

“Yes. Since they said that we’d have to file a case, they didn’t want me to get the treatment in GH, they decided to take me to Asha. Before that, again we went back to their home, because the owner’s third son had come with me to GH, so he wanted to tell his father about this. When the son told to his father that it would become a police case if we take the treatment in GH, after thinking about it, they said, we need not take the treatment here, better we go to Asha. They said like that. And, later, my son said, we should file a case against the owner. I have worked with them for the last 23 years, how can I do that? I didn’t want to do that. But my son didn’t agree at all, he was arguing.”

What are we to make of these stories? First, there is the question of whether they are “true,” — is this really the reason these women were taken to Asha instead of the Government Hospital? Or, even if it was not the only or even the primary reason, is it true that a report which would have been filed at the GH goes unfiled at a private hospital? My ability to answer this question is limited. The hospital employs a few social workers who work with patients, guiding them through the process of claiming welfare or compensation from the state, and/or connecting them with employers who may be able to hire them, even if they are no longer physically able to return to their old job.<sup>41</sup> I asked one of these social workers about the reporting mechanisms that exist at the hospital. He told me that in the case of road traffic accidents, there are police officers who come to the hospital most days to take statements from patients who have been involved in an accident and make a report. This, coupled with police information from the scene if available, will form the official record of the accident, for the purposes of insurance claims and in case one party files suit against another. The social worker also told me, however, that, depending on the severity of the accident and whether or not those involved have vehicle insurance, these matters

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41. The Indian government offers incentive payments to companies who employ people living with disabilities.

are also often sorted out informally. Ok, I said, what about for workplace accidents? Well in that case it's up to the employer, he said, telling me that a police officer will come to the hospital and speak to the injured patient if the employer calls to make the report. Some companies, he said, have their own internal reporting mechanisms, or may choose to report at a later date. Or not at all? I asked. Yes, he confirmed. In other words, it does not seem that the hospital has a system in place whereby accidents are automatically reported. However, the same social worker expressed skepticism over whether the reporting mechanisms are any more robust at the Government Hospital.

It is the case that some companies have internal reporting mechanisms. Mathan Raj (who was the only worker I spoke with who received compensation above and beyond the cost of care, 100,000 INR for a partially-amputated pointer finger), told me that, although he had not been aware of the system prior to his accident, along with a human resources worker at the factory, he filled out a series of forms and reports about the incident, both in order to claim his compensation and to adjust the machine or system in case it was found to be dangerous or defective. And I interviewed a factory owner of one of the largest pump manufacturers in Coimbatore and she told me that they have a reporting system that investigates all accidents and all "near-misses."

However, beyond the question of truth and reporting mechanisms, there is the question of what this belief indicates about the state of labor law and regulation and the question of worker safety. Again, I argue that these stories indicate that the accident takes place in circumstances under which people are already (deservedly) mistrustful of institutions, including medical and legal institutions, as well as social ties and obligations (Banerjee 2020, 5). That is, both of these women, and many other workers with less extreme examples, expressed dismay and frustration,

though not surprise, that their owners had failed to care for them appropriately. Dr. Srinivasan will tell us later in the chapter that most patients draw upon “social insurance” to cover the cost of their treatment, and indeed we saw this directly in chapter 3 when part of the pre-operative process involves reaching out to social network to determine how much surgery one can afford. However, under circumstances of precarity, social insurance is often limited or unreliable, owners will claim to pay for a surgery or offer to pay a worker back but frequently fail to do so in the end. Workers were highly critical of this tendency in owners, saying that it revealed the owners true lack of humanity (*manithaapam*), and yet, in the absence of robust labor laws, reporting mechanisms and in the presence of capitalist imperatives to drive production costs down and subcontract to meet demand, workers ability to demand compensation or recognition from their employers was limited. I turn now to a consideration of labor laws themselves, the kinds of systems they respond to and herald, and the ways in which they assume and distribute danger and risk.

### The Factories Act

I turn to a brief history of industrial labor law in India. Valerian DeSousa argues that industrial law in India (and, I would add, the accident— preventing it and litigating in the wake of it) is one of the techniques through which workers are interpolated into and made visible within the industrial legal system (DeSousa 2010). He writes about how Indian labor law was encoded, and its relation to colonial systems of governance, rule, and trade. He argues that law was one of the techniques by which purportedly lazy and undisciplined colonized bodies were refashioned into acceptable and efficient workers by the colonial regime. In 1872 a report was published by Major Moore, Chief Inspector of the Cotton Department, detailing the working conditions in the cotton and textile industry in India, and urging the British government to work

towards labor reform. This was coupled with an outcry from Lancashire and Manchester that unregulated labor in India would result in unfair advantage to manufacturing plants in India, and further contribute to the decay of British domestic manufacturing. The first result of this was another commission that, after an investigation of the textile mills in Bombay, concluded that, although working conditions were harsh and included long working hours, child labor, a lack of fixed holidays, and dangerous machinery, they were nonetheless acceptable in this context based on a racist construction of the Indian worker as pre-modern and undisciplined (Anstey 1929; DeSousa 2010). Over the next several years and decades, this satisfaction with working conditions was slowly displaced by a recognition that improvements in such conditions were necessary, either for humanitarian reasons or because the workers themselves needed to become more disciplined, or, again, because of the competition to Lancashire and Manchester mills by unregulated (and hence cheaper) Indian manufacturing processes.

The first Factories Act was passed in 1881, prohibiting the employment of children under seven years of age, requiring the fencing of dangerous equipment and the reporting of workplace deaths and accidents, and spelling out the powers and responsibilities of local governments in relation to factory function (Kydd 1920). Although in various commissions and reports leading up to the passing of this law, the regulation of adult employment, especially regarding the health and safety of workers, had been much discussed and various regulations suggested, they did not make it into the final bill. Shortly after the passing of the bill, in a report from the Inspector of Factories of the Government of Bombay advocating for swift amendments, this first Act was called, “gravely and palpably inadequate” (Kydd 1920, 24). It was not until an 1891 amendment that adult workers became subject to the implications of this law, which limited working hours for women and children, and changed the definition of a factory. The 1891 amendment came

about due to pressure from humanitarians (both Indian and British, who lambasted the unsafe working conditions), and from British textile owners who were growing increasingly concerned about competition from the Indian market. The overtness of the economic interest evinced by the British mill owners is illustrated by the fact that, after the Manchester Chamber of Commerce passed a resolution advocating the extension of the British Factory Act to Indian textile mills, the European Chairman of the Madras Chamber of Congress (a British organization) wrote a letter to the Government of India in which he “attribute[d] Manchester’s action to jealousy, to the dictates of self-interest and to the discovery that competition in India was becoming too severe for Lancashire,” rather than to a “disinterested concern for Indian operatives” (Shiva Rao 1930, quoted in Holmström 1984, 50).

Throughout the early part of the 20th century, amendments continued to be made to the Factories Act, and, in addition to working hours, came to include regulation of factory premises and facilities such as adequate toilets and eating areas that must be provided to workers, but always these movements were couched in a language that emphasized the importance of increasing the efficiency of the workers. Under the Employee’s State Insurance Act, 1948 and the Employees State Insurance (Central) Rules, 1950, employers are required “To maintain a bound Inspection Book, prescribed under Regulation 102 A –an Accident Book in Form 15 and to send Accident Report to the local office/dispensary and to others depending upon the seriousness of the accident.” However, like the Factories Act, these rules are applicable only to factories employing ten or more persons with power and 20 or more persons without power.

In 1923, the Workmen’s Compensation Act was passed, which guarantees certain protections and compensations to the worker or his family in the event of his injury or death. However, and to this day, these compensations are only claimable if the worker has done no

wrong. In the Dangerous Machines Act, it states that the employer is liable for compensation to the worker or his family unless:

- (a) the operator having been at the time thereof under the influence of any intoxicant or drug, or
- (b) the willful removal by the worker of any safety guard or other device which he knew to have been provided in the machine for the purpose of securing the safety of the operator.

So we have here the interpellation of the worker into a system of laws and regulations into which he only may enter if he displays the correct, modern, and disciplined working behaviors, or rather a system which assumes a modern, disciplined, male worker (DeSousa). Or, one could read it the opposite way, that these laws assume an undisciplined, drunken worker and serve therefore to protect the employer from responsibility for him.

In the spring of 2014, I toured a sugar factory outside of Madurai. I happened to be there on a day that the factory was shut, but normally the factory runs 24 hours a day and all of its approximately 500 employees are male (except for the women who were cutting the grass by hand in the factory lawn). And the grounds were quite lovely, a “garden factory,” like those which became popular in the 1920s and 30s as the turn was made towards increasing the productivity of workers by promoting health and healthy behaviors (Arnold 2013: 126). In contrast to this vision of the factory as a place of health and well-being, well ventilated with proper sanitation facilities and a canteen, I was struck by the number of signs encouraging workers to be vigilant. These signs, in both English and Tamil, warned of the dire consequences of a failing to follow protocols. One said, translated from the Tamil, “a moment of inattention could result in a lifetime of limbleness,” linking indelibly the working with these machines and the risk of an “accident.” There were also numerous posted signs explicating the rules by which a worker must abide as he or she walked in and worked with the machines (the wearing of shoes, a

helmet, and other protective gear, for example, was necessitated in order to approach near the machines). I contend that these signs serve as a method for producing workers.<sup>42</sup> They both discipline workers, reminding them of their peril and the importance of correct behavior, and insulate the employer against possible legal action by an injured employee.

Matthew Desmond, in an article called “Making Firefighters Deployable,” argues that the US Forest Service constructs its trainings and responses to firefighter death and injury precisely in order to distill responsibility for safety down to the individual firefighter (Desmond 2011). Far from firefighting being an “adrenaline-powered,” risk-taking, hyper-masculine space, firefighters come to “accept the organizational common sense of the Forest Service...they begin to develop a disposition toward firefighting, a disposition through which they place their faith in their individual abilities alone. And if they are competent, so goes the logic, if they know and observe the Ten and Eighteen, they have nothing to fear from fire” (Desmond 2011, 65). A similar logic seems to exist for many of the workers I spoke with who had been injured, in that fault for the accident was seen to be a distracted or incompetent worker rather than an inherent danger in working with machines. However, unlike the firefighters Desmond worked with, my interlocutors’ industries were quite various, and the level of training most had gone through was considerably less; I am therefore not convinced that this individualization of risk is unique to either “high-risk organizations” or produced fully from organizational structure. In this case the commonsense narrative of responsibility and (bad) luck is more dispersed. In the absence of clear reporting mechanisms (usually) and any formal on-the-job safety training (again, usually), this narrative is attributable not to a specific organization (although it may be built upon or enhanced there) but rather a more general orientation to the world.

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<sup>42</sup> As Benjamin Whorf shows us, the way that factory signs are worded produces different kinds of behaviors in workers (2012 [1956]: 368)

### Dangerous Machines

As many researchers since Erving Goffman's 1969 essay "Where the Action Is" have claimed, risk and danger are strongly gendered notions, and bodily risk, or risky behavior at least, is typically (though with important exceptions) associated with the construction and performance of masculinity (Goffman 1969). In this section, I ask how India's labor laws and policies construct a bioavailability to industrial injury along embodied, gendered lines. There are several other laws that restrict who may work with particular machines. Besides Section 22, quoted above, there is Section 27 of the Factories Act which prohibits entirely the employment of women and children near cotton-openers; "No woman or child shall be employed in any part of a factory for pressing cotton in which a cotton-opener is at work." A cotton opener is a machine that takes baled cotton, which is all squashed down, and shakes and blows it out to make it soft and loose, and it can then begin the process of being spun into yarn. No exceptions to Section 54, which regulates the number of hours a person can work in a day, are allowed to be made for women employees. And Section 87, "Dangerous operations," grants power to the State Government to declare dangerous "any manufacturing process or operation" which "exposes any persons employed in it to a serious risk of bodily injury, poisoning or disease," and to prohibit or restrict "the employment of women, adolescents or children in the manufacturing process or operation."

When I asked my labor law teacher in Madurai (who is himself a lawyer) why this was the case, he said that it is because women are "soft," not strong enough to work with such machines, and because they have long hair which could get tangled in the moving parts of a machine. All three of these ideas about gendered bodies were repeated in further inquiries around

this question.<sup>43</sup> This risk, of course, is related to the way that work is valued; as Piya Chatterjee writes, “nimble fingers are cheap fingers;” and women in India and all over the world have long been preferentially hired for small, precise, nimble jobs—threading spindles, picking tea, assembling electronics. This can be seen further in the way that the sexual division of labor sometimes changes given technological advance. Peter Custers gives us the example of the introduction of machines into the garment industry near Calcutta, which transferred previously undervalued “helper” tasks like button-holing and hemming from women to men (Custers 1997, 128). Urvashi Soni-Sinha, using the example of the construction of jewelry in the Noida Export Processing Zone near Delhi as a nearly or ideally masculine task argues that “The women’s ‘natural’ reproductive responsibilities were deemed incompatible with the practice of prolonged hours of work and training. The discourse that jewelry work was too difficult for women was related to arguments both about the inability of women to do the work and the need to protect women from doing such difficult work” (Soni-Sinha 2006, 351). As she goes on to argue, this was done in part to uphold ideologies behind the gendered division of labor, but on a broader or more material level, it also made available to the companies that employed the jewelry makers, or who bought the jewelry, a large population of readily available, flexible (male) labor.

Geert de Neve addresses gendered divisions of labor in the handloom weaving process, in which, in spite of changes and the recent upswing in women workers (especially in the handloom industry where they now outnumber men), women still perform the worst paying and least powerful positions (De Neve 2005, 87–88). He explores relationships of dependency, debt, and patronage by which the authority of the owner is solidified. This hierarchy is also expressed along gendered axes as one of the main reasons owners are keen to hire women is that they are

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43. and, I could add, Asha Hospital does perform occasional scalp replants for the devastating injury that does, in fact, sometimes occur when hair gets tangled in a machine.

seen as more dependable and less able or likely to organize against the owners (De Neve 2005, 94). He then moves on to explore gender and hierarchy in the powerloom industry, in which women are employed exclusively as winders, not as weavers, for a number of reasons: they are less likely to be willing to/allowed to work in the powerloom factories where working hours are set in two 12-hour shifts that are not flexible because of the necessity of keeping the machine running (which would make it difficult for them to also perform their domestic duties, in addition to the taboo of being unsupervised around strange men) and also because “powerlooms require much more technical know-how than handlooms and most women say that they are neither able nor interested in operating powerlooms which they consider to be a man’s job, because of its association with machines and technology” (De Neve 2005, 97). He finds many similarities between this system of organizing labor along gendered lines of hierarchy and that of the formal sector mills described by Fernandes and Sen (Fernandes 1997; Sen 1999).

These laws are meant to shield women’s bodies from certain kinds of physical exploitation and damage, asserting, in part, that this kind of labor, the higher pay and status that often goes along with it, and also the surgeries which may follow in the wake of such industrial accidents, are conditions for which male bodies, more than female, are deemed appropriate. I consider this male vulnerability in conversation with previous work on the bioavailability of women’s bodies in India for organ and egg donation/selling, medical testing, and sterilization campaigns. One of the contradictions drawn out by this scholarship is that precisely through a logic which understands women’s bodies as possessing a certain kind of resilience that men’s do not, they are made vulnerable to such interventions, troubling easy assumptions about the vulnerability of gendered bodies (Cohen 1999; Van Hollen 2003; 2013; Tarlo 2003). My

research similarly offers a counterpoint to narratives which reinforce normative gendered notions of bodily strength, vulnerability, and availability.

Responsibility for the accident, in the absence of more reliable reporting mechanisms, is often discussed as simply a matter of luck, “it was just my bad luck.” Only a couple of people referenced broader cosmological webs of significance, like the influence of astrological events or a particularly unlucky dosha. However, Vatsala, deepening her critique of the factory owners, said that, not only did they abandon her after her injury, they accused her of performing witchcraft against them. She reads this as a tacit admission that they were negligent in their responsibility to her, such that she would have had cause to curse them. “I was the first [to be injured]. And after me, the owner’s son was injured. The same machine, the same kind of work, his son lost these two fingers completely. They were cut and fell down. The same machine, the same work, the same Friday, three months later.”

She went on to say, though, that for their son, the owners paid for a replantation of his cut fingers, although they had refused to buy her a prosthetic finger. “But, they have money, so they reattached the fingers. These two fingers were lost, and they put them back, they also fixed the nails. For me when it happened, they said it will cost too much, like that.” She told us that she and her son went to visit the company near the flower market that makes prosthetics, to which Asha normally refers its clients. They were told that a prosthetic finger would cost 20,000 INR (about 300 USD); she asked the owner if he would help her cover the cost, but he refused.

“The owner asked, if it doesn’t fit properly, what will you do? If he had a good heart (*nalla manacu*), at least he would have offered to pay half, and I could pay half so that I could buy the finger. Only ten days later, his son was injured. So that’s why that lady (the owner’s wife) said that I cursed them (*saabam vitthutanga*), that’s why it happened to their son. She knew

they mistreated me, that's why she said that. But I didn't curse them, I told her. When I went asking for a finger, they said what are you going to do by keeping that rubber finger. But when it happened for their son, they reattached the fingers."

Here Vatsala calls out the owners for not caring for her as they did for their son. She acknowledges that a reattachment was not possible in her case, because her finger had been crushed rather than cut, but in their refusal to help her buy a prosthetic, they not only dismissed her as a person for whom they had some responsibility, they also reinscribe class-based ideas about what a hand is for, as we saw in Chapter 3. A prosthetic finger is not functional, it's purely aesthetic; that is to say, it doesn't move, but it may help one move in public without others noticing an amputation. Few of the people we spoke with opted to buy a prosthetic, and, even those who had rarely wore them, only, as one person said, "sometimes, if I go to a function, I'll put it on." Yet when the owner asks her "what are you going to do by keeping that rubber finger?" in essence he is indexing the notion that a prosthetic that is not functional has no purpose for a worker, whose hands are meant to be used for working.

Furthermore, in accusing her of cursing their family and their son, Vatsala sees yet another slight. It's a serious accusation, one that may have implications of her ability to get other work, and yet also, as Vatsala says, an admission that they know they did wrong by her. "She knew they mistreated me." It is not, as we saw in the previous section, that they broke any laws in particular, but they failed in their social obligation to care for her. There was, for all the people I spoke with, a skeptical assumption about the care that owners had for their workers. People felt that there was, ideally, a caring relationship between owner and worker, that in exchange for her labor, the worker received not only wages but some "social insurance," some relational obligation that would mean the owner would help out his worker if needed. In the same way that

people asked for advances or for small loans or gifts to help cover school fees and other expenses, owners who gave more freely at these times were praised, yet there was also skepticism that it reflected a true caring. Many workers assumed that, although this social relation existed in an ideal form, in practice an owner who could get away without helping his worker would do so. It is perhaps unsurprising that the two most extreme examples of this both came from women, who had relatively little political or social power to force the owner to pay and who, in the very process of being cared for, were also, by their own accounts, restricted from pursuing legal claims against the employer. “Ok, fine, anyway I don’t associate with them anymore,” Vatsala told us in conclusion. “Let it happen whatever may be (*nadakkurathu nadakkatum*). Why should I curse them? It is our fate, that’s why we got hurt.”

Although he was the only person I spoke to who received compensation for his injury (beyond the cost of medical treatment), Mathan Raj spoke most scathingly about the status of worker’s rights in Coimbatore. He was acutely aware of the ways in which his coworkers occupied far more precarious positions than he. When I asked about worker’s rights, his wife laughed, “What rights!?! It’s very bad here (*rompa maucam*). We don’t have any rights for workers.” And Mathan Raj echoed, “We don’t have any at all (*engalukku onumee illai*).” He went on to explain that when he first got his job at the large, formal factory where he works, some twenty years back, it was relatively easy to find work. He had only completed tenth standard, but, by gaining work experience in the company, after a few years he was taken on as a permanent employee. “Now,” he said, “people who are coming have diplomas, but even they will not be getting permanent jobs. There are no permanent jobs anymore. The company won’t do it. No companies will do it.”

Here Mathan Raj speaks to a common phenomenon, which is that, even at formally registered factories, alongside permanent, salaried employees (who hence have access to a wider suite of benefits and protections), people work “on contract,” for less pay, fewer benefits, and little security. He and his wife brushed aside the possibility that factory owners or managers could be expected to care for their employees.

“The people who are working the temporary job, they earn only 10,000. So what is the use? We people always suffer. The owners are always earning profit, by getting the work from us, they get assets, resorts, land, they build new buildings, but we workers remain in the same category, in the same difficulty, getting low wages. In one year they get 2,000-3,000 crores profit. In some cases in a government job, if something happens to someone, their job can be transferred to a family member, but even that system is falling now. But ours is a private company, so we don’t get that benefit anymore. They just appoint the workers temporarily. They won’t confirm it. They work only for just 10,000 rupees monthly salary. For a permanent job, my batch is the last.”

“So for the temporary workers, what happens if there’s an accident?” I asked.

“Without letting anyone know, they will hide it (*marachiruvaanga*). They will give some money to that person, and let them go.”

His wife added, “When I was working in the mill, one person lost four fingers in an accident. They took him to hospital, after the treatment, his family members came to look after him, the owners paid the amount and had the family take him home with them. They did not want him to work there anymore, so they sent him away after the treatment. If there is a union only, the workers are safe, or else, no. In this type of work, if there is no union, there is no safety for us, so we should look after ourselves. Safety depends on ourselves only.” Mathan Raj and his

wife here tie the contract labor system, the increasing precarity of workers, directly to both accidents and the ways in which employees are cared for (or not) in their aftermath. They express skepticism, if not outright distain, at the idea that workers might be able to extract support from their employers in the absence of stronger unions or policies and at the idea that employers would be expected to care for their workers out of a sense of humanity or social obligation. And, as both Mathan Raj and his wife indicated, as did many other interlocutors, these accidents are not uncommon. “After the operation, we weren’t able to discuss many things with them (the surgeons) because there was a big crowd of patients waiting, other patients with similar injuries.”

#### Conclusion: Numbers, paper, insurance

A fair amount of this and the previous chapter have been about numbers and cost – how much the surgery cost, how much was paid by whom, how much was someone getting paid, how much did PT and bus rides and hotels cost. I draw our attention to these numbers and the material practices that brought them into the world by way of conclusion. My interlocutors were nearly all comfortable telling me exactly how much something had cost; this information was volunteered often before I asked, and when I did ask people rarely hesitated to say. Occasionally someone would go over to a chest of drawers and hunt around for the original hospital paperwork to show me the bills and calculate the exact total (in India patients usually leave the hospital with their chart; Asha keeps a copy for record keeping and research purposes). I was often surprised at how nonchalant most people were at discussing money with me; and the few people who didn’t seem to want to discuss it in much detail would simply shrug and say *I think it was about 70 thousand*. I never pushed for the exact numbers; I was more interested in people’s responses to this question and the way that it provoked other information, about debt and

repayment, about the way the bill was calculated, about the comparison between the up-front cost and the follow-up care.

I was having a cup of coffee with a few of the doctors in the break room of the Outpatient Department one November morning, when Dr. Srinivasan arrived with someone in the Asha Hospital administrative uniform sari.<sup>44</sup> “Billing time,” he said and sat down. The billing department worker was carrying a large stack of charts; she handed them to him one at a time, explaining briefly about the case and the kind of surgery that was done while Dr. Srinivasan filled in rupee amounts on a bill with blank spaces for Theater Charges, Devices, Anesthesia, etc., etc. Some of the lines were already filled in; in situations in which both orthopedic and plastic surgeons work on a case, the orthopedic surgeons will fill in their part, then plastic fills in theirs.

Dr. Srinivasan said that they charge about 2000 INR (29.15 USD) per hour in the OT, so more complex surgeries cost more, of course. I asked if patients could pay in installments after they are discharged; he said no, “how do you know they will keep on paying?” People often pay in small amounts up to the date of discharge, but the bill in full is due before they leave the hospital. And indeed I sometimes heard stories about patients who were stuck in the hospital for an extra day or two because they couldn’t afford the bill. “People are usually pretty good about paying, sometimes we’ll lower the bill a bit if they ask.” The next chart in the stack is someone who had an amputation. Dr. Srinivasan said, “if a person had an amputation, though, we charge quite a bit less.” Another doctor in the room nodded and laughed a little, “no need to add insult to injury,” he said.

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<sup>44</sup> There are different uniforms for various workers at the hospital — the nurses have a particular set of colors, the head nurses a different set, the administrative staff yet another, and the janitorial staff another still. Doctors dress semi-formally in whatever they want, plus a white coat.

I highlight here the materiality of the bill – the way it is brought into the world in this way, in the few minutes between seeing patients, Dr. Srinivasan makes time to jot theater charges on a slip, which then goes out into the world and carries force. Enough force that people kept track of these bills, brought them out as evidence of the treatment they had received, and of what it had cost them. I contrast this with, as Vatsala and Chittra’s stories show, the noted absence of any other kind of material record of the accident. Following Matthew Hull, I consider these records, “not as neutral purveyors of discourse, but as mediators that shape the significance of the signs inscribed on them and their relations with the objects they refer to” (Hull 2012, 253). Hull claims that documents, broadly construed, both control and order organizations and construct and produce subjects and objects in particular ways – although both incompletely. The *absence* of a police report about the accident, in contrast with the presence of a bill demanding payment in full, indexes, if not a lack of care on the part of owners for workers, a lack of worker power and rights (“what rights?!”). Oddly, just as people pointed to the paper bills themselves as evidence of their time in the hospital, Vatsala and Chittra point to the lack of a material record as evidence of a lack of their power to force their owners to do right by them.

One day on rounds at Asha we met a young Nepalese man who works in Bangalore as a security guard. He was injured in a road traffic accident and treated primarily at Bangalore. The wound became infected and he had come to Asha for secondary treatment of a serious injury to his right ankle and lower leg. The tenants in the apartment where he works are paying for his treatment, Dr. Srinivasan explains, saying, “here the only insurance that exists is social insurance. This is why people in India don’t buy insurance. Why waste money on a premium? Nearly everyone has ten people he can call to ask for money. And people are shameless about asking because they know they would give if someone asked them. Whenever a visitor comes to

the hospital, they'll leave cash under the patient's pillow." Even at his own apartment building, the same thing had happened, Dr. Srinivasan continued. His security guard's wife met with an accident, the bill for the treatment came to INR 70,000, and every family in the 32-unit building gave 2000 rupees to help cover it. We saw in chapter 3 how the concept and practice of "social insurance" is mobilized in the pre-operative ward, as patients check in with friends, employers, family members to see exactly how much social insurance they can call up. In all cases, the injury opens a rupture, however small, in the texture of a person's everyday life. Stitching this back together requires concerted social, medical, and self-work. In some cases, as Dr. Srinivasan indicates, this informal social support functions quite well to help smooth over the experience of the injury and its sequelae. In others, it tips a family already living in somewhat precarious circumstances, into debt, uncertainty, and instability.

## Conclusion: Connective Tissue

At class one spring morning, Dr. Ajay, one of the more experienced registrars, gave a presentation about nerve physiology. He called it, “Conduction, Interruption, Regeneration, Reorganization.” He drew squiggly, kelp-like lines on the white board, and explained that dendrites collect electrical information, cell bodies integrate that information which is sent to the axon, and then to the brain. He quoted a famous pronouncement by neuroscientist Paul Bach-y-Rita, “we see with our brains, not our eyes,” amending it to, “we feel with our brains, not our hands.” Although I have drawn attention to the specificity of the hand, this much be held in tension with a recognition that the body is always, already multiple, made up of various and overlapping systems and influences.

Dr. Ajay moved on to discuss factors affecting the outcome of a trauma involving nerves: age seems to matter, not because younger nerve cells regrow more effectively but rather because the brains of young people are more plastic and seem to be better able to relearn/reorganize in the wake of trauma. This is evidenced by the fact that younger people with amputation suffer less from phantom limb pain, which suggests that their nervous systems – the brain and nerves working together – are better able to integrate the fact of the missing limb into their experience, rather than continuing to expect to feel the missing limb. The timing of the repair also matters (in other words, ischemia time); the type of nerve involved and the type of injury are also

significant. Interestingly, Dr. Ajay said that crush injuries heal better than a clean cut because if the nerve is crushed, it will grow back together and line up properly on a microscopic level, which a surgeon cannot replicate in a repair of a fully transected nerve. He showed us microscopic images of crushed axons bending and curving over time to line themselves up again, a view of what is happening in the months after a surgery on a microscopic level as the body literally reorganizes itself. It was a haunting presentation, in part because of the ethereal beauty of the images of the nerves and in part because of his emphasis on the way that something so small and unpredictable can determine whether or not someone regains sensation in a limb, whether or not they are able to move a finger. The idea that crushed is better than cut because something damaged may regrow while something neatly sliced, no matter how carefully a surgeon lines it back up, cannot often weave its way back together.

Lives, too, grow back together in ways that may be unpredictable but also follow established historical patterns. These injuries and their recoveries are, as Van Hollen writes, “the local embodiment of world history” (2013: 8). Who cares for whom, who steps in to fill a particular role, these may vary for individual families but they follow trends shaped by time and power. Tracing the sequelae of a factory injury brings us through a great number of spaces that are involved in this reconstructive work. Much of the work of this project has been in exposing the connective tissue between supposedly neatly-separable fields: the hospital – the workspace, care – violence, labor – care, the body – the machine. These things appear at first to belong to different, easily distinguishable spheres of activity and experience. The maintenance and, indeed, exploitation of these boundaries is part of how capitalism extends and exerts its influence. The designation of a wound as an accident and its sequestering to wards of the hospital for treatment in part cuts off the possibility of critique of a system that produces hundreds of crushed hands

and fingers each month – even as it also produces expertise, training, and profit for the hospital – even as it also produces and mobilizes regimes of care.

In this dissertation, I have argued that the workplace accident is an important analytic lens for understanding the complex overlap of labor, medicine, the body, and care. Often anthropologists confine studies of institutions to a single site, examining how a particular phenomenon is constructed within and by that institution, amidst and through various contradictions (Brodwin 2013; Lorna A. Rhodes 1990; 2004; Wool 2015). Although my study began at a hospital, it is not, in effect, a study primarily *of* that hospital, rather it is a study that follows the workplace accident back in time to its origin at the workplace and forward in time through the recovery phase and afterwards. This methodological orientation allows for questions about myriad practices and places through which the body constructed and reconstructed, by varying actors and to different, and sometimes contrasting, ends. By following the accident, rather than a particular site or industry, this project explores the connective tissue that forms the interstices between a range of different sites at various scales: between medicine and labor, care and capitalism, and the formal and informal economies. Connective tissue is not just a metaphor here: it is the body that comes through in an exploration of the accident as never simply an implement of labor, but always straddling multiple fields and made up by a broad range of social relations.

### Wounds and Injuries

I began this dissertation with the signature injury, arguing that the machine crush injury is a kind of signature injury that symbolizes a whole ecosystem of labor and the forms of care that are mobilized in its wake. This is particularly apparent from the hospital, when we consider the ways that surgical expertise is provided for by these particular forms of trauma. The historicity

and specificity is important here – different kinds of woundings would provoke different kinds of medical technologies, even as surgical techniques are borrowed from other woundscapes, including war, and vice versa. In 2017, the recipient of a prestigious yearlong fellowship at Asha was from Syria; he said in a speech thanking the funders that he planned to use what he learned at Asha to help treat victims of war and violence in his country. Medical knowledge and techniques form a kind of connective tissue that transfers between different contexts, each with their specific local woundscapes. The distribution of these woundings and this expertise are of course not accidental, but dependent upon global histories of inequality and exploitation.

Later in the dissertation I wrote about Lochlann Jain's work on injury; Jain explores the processes by which only certain wounds are able to (or are made to) rise to the level of injury. In the context of Coimbatore, while the machine crush injury may be a signature injury, it rarely rises to the recognizable level of injury that Jain refers to. The pain and hardship of the individual and their family are seen and acknowledged at the hospital and in the community. Socially, the wound is recognizable as an injury, as a hardship; however, in part because of the way that capitalism informalizes labor and keeps these kinds of wounds out of official records of workplace injuries and mishaps, it is extremely difficult for these wounds to rise to the level of injury in a legal sense. Rather, people are more likely to rely upon locally-meaningful social norms about responsibility and humanity to make claims against negligent employers, or to extract aid in the wake of an accident. By their nature, these mechanisms are informal and unreliable.

The historical specificity of the accident itself emerges as a critical lens to understand the contradictions of capitalism. Approaching the history of Coimbatore through the accident and narrated in the language of workers who have been injured and surgeons who have cared for

them reveals the connective tissue between the formal and informal economies. Labor laws and regulations are revealed not only as ineffective tools in the face of capitalism's tendencies towards consumption but as also a kind of boundary of exclusion. Additional laws and regulations do not change the calculus at the heart of the system, and so I avoid telling a redemptive liberal story in which the solution is stronger laws. Looking at the history of the Factories Acts in India reveals as much as well; policies aimed at injuries address particular forms of maiming for particular people, but these forms of governmentality will never include whole swaths of the population, the 450 million people laboring in the informal economy who are excluded from the start. Laws have not been able to bridge the formal and informal economy divide in a meaningful way, but social networks do so quite easily.

This project begins with the accident and the wound that it causes; I then trace the wound through a range of different social spaces – in some of these, it is hailed and recognizable in different ways and at different levels. The surgeons may recognize a pattern of injuries that are indicative of broader trends of risky work; an injured worker may recall neighbors, friends, and coworkers who have also been hurt; family members and community networks may come for days or weeks to provide care or drop by with food or other assistance; and factory and workshop owners may tacitly acknowledge a wound as an injury by providing for the surgical care, and by making informal adjustments to the working environment, whether by servicing a machine, purchasing a new one, or telling the employee that they need not work in that same machine. The accident and the wound reverberate out into the future and are configured and reconfigured differently as they travel through different social spaces; just as the body is made through social relations, so too is the wound. The particular forms of care it demands, then, are also historically specific.

### Generative Labor and Moral Economies

Throughout the dissertation, we saw the myriad ways in which care is generative of capitalism. Capitalism is a set of social relations; that is, these relations make up the day-to-day practices that produce what we call capitalism, and are made clear and visible in the workplace accident. These relationships vary in scale and shape, from the relationship between worker and machine, to that between coworkers, to the broader relationships that connect the workplace to the hospital and the labor that takes place therein. Part of what is seen in this project is the boundary work that capitalism does – the presumed binaries (production-reproduction, care-violence, work-home) that capitalism relies upon are ruptured by a focus on the accident, which shows how intimately these spheres co-constitute one another. Reconstruction, repair, and rejuvenation rely on weaving together multiple layers of connective tissue of care, which both exceed and bolster regimes of productive labor under capitalism.

The surgery, and the expertise and reputation of the surgeons and hospital, are themselves dependent, as we saw above, on a regular supply of trauma. However, as the surgeons themselves articulate when they tell their patients, “the surgery is only 50%, the rest is physiotherapy and is up to you,” the surgery is also fundamentally dependent upon labor that the surgeons do not do. Some of this is done in the physiotherapy department, but a large part of it is done at home, under the presumed supervision or exhortations of family members. Most patients are sent home with a set of exercises to do on a daily basis, and many return, or are instructed to return, for regular follow up and the provisioning of additional exercises from the physiotherapists. The work of keeping up with these exercises is very important to the strength and mobility of the repaired tissue, and, just as with other forms of labor (dressing wounds, feeding, cleaning a patient) the hospital depends upon mechanisms of social care and

relationships in order to succeed.

An additional historical irony is visible in the way the surgery is framed as an art, a craft. I picked up on the work of other medical anthropologists using the concept of tinkering as a kind of care. To tinker, of course, comes from the world of workshops, of crafts. I used tinkering to think about the way that people's adjustments to machines is a form of care, yet it is also the case that the demise of tinkering crafts is related to the rise of factory labor in the first place. That notions of artistry and adjustment move into medicine and surgery and away from manufacturing is yet another connection between surgeons and workers. The workers tinker with their machines, the surgeons tinker with the tissue of the workers; in both cases tinkering is a form of care, of relationality, and of violence.

There is additional work here to be done on the relationship between humans and machines. I have claimed above that workers and their machines have an affective relationship, that humans care for and make adjustments to the machine. I have spent somewhat less time considering the ways in which this relationship might be thought to be mutual – is there a way in which the machine cares for the worker? In the aftermath of an accident, how are caring practices for the machine transformed? Particularly for workers who were injured while performing habitual acts of maintenance – how does the accident provoke different kinds of caring practices that may be less habitual, more wary, and does that change the texture of the experience of labor? In some cases, adjustment to the machine after an accident meant being unable or unwilling to adjust to it. Kannan, for instance, works somewhat less in his workshop himself these days, but rather has hired a few young men to do the machine work in his stead, cutting into his profits perhaps, but also outsourcing the risk and worry to others.

The loose chronology of the accident charted in this dissertation is also about the

connective tissue between concepts of morality, obligation, humanity and “the economic.” We know already that the economic is not a clearly bounded sphere, and the accident reveals the interstices between economic activity and ideas about morality. Using the concept of *manithaapam* above I explored the way that paying for the surgical care was framed by workers as a kind of social obligation to which owners were (socially if not legally) tied simply by virtue of their position as a member of a community in relation to other humans. In some ways, then, *manithaapam* provides cover for the owner to avoid potentially larger or more costly questions of liability. But *manithaapam* is also a way for workers to levy demands (if not always successfully) in light of the fact that they are systematically excluded from the governmental regimes that might make it possible to make claims on a legal basis. They make these claims, then, not as workers seeking compensation from employers, but as humans seeking recognition of their own humanity. In doing so, the employer, too, affirms his own humanity, his own recognition of his obligation to people with whom he is in relation. The hospital also articulates and exploits this when the doctors explain that patients use “social insurance” to pay for their care – so much so that in the regular flow of admittance and pre-operative care, time is given to call upon this social insurance and see how much can be afforded. The example of *manithaapam*, then, shows yet another area of connective tissue that draws people and institutions together and provides at once care and shelter, while also in some ways allowing the capitalist system to skirt the larger issues of chronic risk that it produces.

In a short, posthumously-published article, Friedrich Engels engages with Darwinian theories of evolution and argues that the human hand was “the decisive step in the transition from ape to man” (Engels 2007, 25). He claims that the development of the human hand was both a necessary step in human evolution, and also the means by which this evolution was made

possible. And, it was primarily through increasingly complex forms of labor that the hand evolved:

But the decisive step was taken: *the hand became free* [from being used as an implement to assist bodily movement/walking, as it is in apes] and could henceforth attain even greater dexterity and skill, and the greater flexibility thus acquired was inherited and increased from generation to generation... Thus the hand is not only the organ of labor, it *is also the product of labor* (Engels 2007, 26).

He goes on to acknowledge the importance played not by the hand alone, but by the way the human body works together as a multiplicity, and that the development of the hand therefore had other effects on the rest of human biology—a sense of touch, the ability to speak, all developed in consort. Of course, we can see serious flaws in the way Engels conceived of evolution, particularly his view of the way that societies evolved; however, here I use this piece to point to a long history in labor studies of placing primacy on the hand as both tool and object of labor, and as fundamental to human society, sociality, and subjectivity.

Even more importantly, I take seriously Engels' assertion that the hand is not only an object of labor, as labor historians have long claimed, it is also *produced through* processes of labor. Taking this argument further, Engels is claiming that the hand itself has a history, which varies over time, as labor does, and that certain kinds of hands must therefore be produced by certain kinds of labor. The hands of the worker-patients as Asha, then, are produced both through the process of laboring with the machine, and then, again, reproduced by the labor of the surgeons. Notions of the body and of bodily productivity, particular kinds of bodily productivity, which are specific to this site and this moment are at play as the hand is produced and reproduced, constructed and reconstructed. What, then, can the way that hands are surgically reconstructed in Coimbatore tell us about the specificity of both labor and the hands that produce/are produced by it at this moment, and in this context? How do hands themselves bear

their own specific history, embody particular forms and notions of productivity, and how does that relate, then, to the way the hand seems to call out for this intervention?

The specificity of the hand itself as a particular kind of body part lingers around many of the conversations above, in the hospital and without. Recall the doctors explaining their different approaches for upper limb versus lower limb injuries, or the way both Keethana and Indira emphasized the significance, material and metaphorical, of hands (both saying, “we need two hands to do the work”). One young man we spoke to had lost half his thumb in a machine accident three months prior. He told us that a few years before he had had a serious concussion in a motorcycle accident, and compared his feelings on the two injuries in this way:

First, when I had the bike accident, I felt bad to face others, because I had that big (head) injury, but the doctors all said ok, ok, you’ll be alright. And that injury healed. But then when I saw that my thumb was cut, I thought, I will not be able to do anything without my thumb.

This dissertation contributes to existing literature on surgery and the body in South Asia. Scholars have focused on other kinds of surgery in India—transplant surgery (Cohen 1999), sterilization and other reproductive health interventions (Tarlo 2003, Van Hollen 2014), bariatric surgery (Solomon 2016); a focus on post-traumatic surgery puts the focus on the literal construction and reconstruction of the working body, revealing significant insights about what it is that makes a body or body part operable, in Cohen’s terms, as well as what it is that makes a body productive. These notions of operability and productivity are negotiated and contingent. No one party is fully able to determine the extent of the injury, the nature of the treatment, nor its success. The surgeries, in spite of their attempt to take into account circumstances beyond the injury itself, also routinely fail to address those issues that the patients will find most persistent in the future. That is, reconstruction with an eye towards function for the laboring body reproduces capitalist notions of bodily productivity at the same time that it fails to account for

the full range of what people need their hands for, as well as what will trouble them in the future about this incident.

In the first chapter, I argued that the accident is constitutive of the embodied experience of everyday labor and the workspace is, in part, one that contains lingering memories of accidents past, both for the worker who was injured as well as for their coworkers. The accident reveals the relationship between worker and machine, as it alters it. This is not to say that the accident is not anticipated, we saw that it is, both for workers themselves and at a broader occupational health statistics scale. The second chapter focused on narratives, care, and habit. I argued that habit is critical for understanding care, self-care, and the way that the past lives in the present. The third chapter brings us to the hospital, where we consider what it is that plastic surgery does in the world. I argued that plastic surgeons at Asha both turn their gaze to the most minute, bodily details, while also expanding it outwards and taking their own consideration of the patient's broader circumstances into account as they develop a treatment plan. This brings up questions of the construction of bodily difference, particularly class and gender divisions, and attendant ideas of bodily productivity, that is, what is a body to be used for? The fourth chapter focused most fully on social reproduction – in what way does using the accident as a focal point reveal insights about the production and reproduction of labor? How are the post-accident caring practices imbricated in larger systems of gender and capital? Finally, the fifth chapter considers the role of labor laws and regulations in constructing notions of and exposure to risky labor.

This dissertation provides ethnographic evidence for the important, somewhat cyclical, relationship between medicine and labor. Labor provides trauma that medicine depends upon to extend its skill; medicine provides labor that addresses the effects of work on the body and so contributes to the reproduction of the labor force. My findings show that it is in large part care

that enables this relationship – a worker works in order to care for his family, the surgeons carefully reconstruct his body so that he can continue to do so. This research shows not only that medicine and labor are in a relationship of “mutual provocation” (Asad 2007, 62), but that it is care that yokes them together.

This project contributes to the anthropological study of care, considering the ways in which care is not incommensurate with violence, as well as to the study of capitalism, exploring the ways in which capitalism is also not incommensurate with care. Throughout my research, patients and doctors alike cautioned me against reading the situation with an overly cynical eye, against viewing it as a kind of conveyor belt in which the industrial city supplied bodies for the labor of the doctors who, in turn, patched people up enough to return to these same dangerous jobs. That is, I maintain, a crucial part of the story, but it is only through the complex and affective ties of care that the violence of that system is maintained and enacted.

I see many different exciting questions that open up from this project. These reconstructive surgeries draw upon common-sense notions of class aesthetics and usability, but they also contest and negotiate normative ideas about form and function. Questions about form, function, and disability provide interesting directions for further analysis. Important work on disability in India has been somewhat sidestepped here, unfortunately (Addlakha 2020; “Disability from the South: Toward a Lexicon” 2019; Ginsburg and Rapp 2020; Friedner and Osborne 2015; Staples 2011). However, I think this project provides an entry point for considerations of the construction and embodied experience of disability, its relationship to historical, medical, and political structures. Furthermore, the future of plastic surgery itself I think holds interesting directions for anthropological research; the relationship between prosthetics and reconstructed limbs is one which may merit more attention. As options for limb

transplants grow, that may also be a rich area for inquiry.

And finally, and perhaps most obviously, I hope that questions of accidents, injuries, and surgery will be taken up further in future as well, not only from an anthropological perspective but in terms of politics, social justice, and equity as well. According to the Lancet Commission, five billion people around the world do not have access to safe, affordable surgical care (Meara et al. 2015). In some ways it is easy to see why things like surgery have received less attention in development spheres: to provide a single surgical suite, a vast medical ecosystem is necessary. Ameliorating this lack means addressing profound systemic inequalities that make the kind of surgical care available at Asha Hospital unavailable for many people around the world. Similarly, at its basis this project provides evidence of the vast inequalities that exist in working practices and experiences. Risk, even of “minor” injuries at work is extremely unevenly distributed, and relates to broader questions of capitalism and the way that work is organized and prioritized. The injured workers whose stories appear here articulate clearly what both Sanjita Saxena and Paul Virilio claim in different ways – that there is no intervention, no regulation that eliminates these kinds of injuries, because they are produced when bottom lines and production schedules are prioritized over the wellbeing of people.

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