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How I fell out of love with the NHS
An ethnography of hip replacements and healthcare
assemblages in the UK

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Thesis submitted in accordance with the requirements for
the degree of Doctor of Philosophy
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I, Hannah Cowan, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

Abstract

This thesis is both a story of how I fell out of love with the NHS and a proposition for how to do politics in and on the NHS differently. Having begun my journey as a campaigner trying to save the NHS of the 1950s, I suggest it is time to come at the rife and dichotomised arguments about the UK's healthcare service with a different tack. I do this by drawing on anthropological and STS scholarship to look not at what the NHS is, but how it is done in everyday practices. Through an ethnography of hip replacements, I see the NHS as a fluid assemblage. I collapse traditional macro-meso-micro policy hierarchies to look at how power gets pieced together through everyday practices. In doing so I argue that, far from being a beacon of equality, the NHS reproduces the inequalities it was supposed to rectify. The classed and gendered hierarchies that get practiced through the relations between staff directly affect what kind of hip replacement is given to whom. Long held practices such as maintaining detached concern, valuing surgical labour over other forms of care, and chasing the spot at the top of data tables lead to patients without the necessary social, cultural and economic capital being left to struggle without care. Through incorporating historical data, I suggest that the problem here is not neoliberalism, but a much more historically entrenched problem of trying to remedy the outcomes of capitalism through a welfare state. Rather than resurrect the NHS of the 1950s, I propose ways in which people can become activists as part of the fluid relations of the NHS. Through reorienting the value of our everyday actions, I propose a different way of practicing healthcare activism.

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Preface

When I first started my PhD, I loved the NHS. I'd been on many of the marches in London over the years, and like other campaigners, I spoke passionately of the NHS as a beacon of equality. Okay, I hadn't quite got to the point of wearing the 'I heart the NHS' badges and t-shirts I've seen others wear, and nor did I sport one of those tote bags with Aneurin Bevan's face on it – the infamous lines claiming folk need to fight for, defend, the NHS. I did, however, serenade the NHS on a march with "you are my sunshine, my only sunshine, please don't take my NHS away".

Growing up in the UK meant I quickly learnt that the NHS was something we should be proud of, and having a mother as a nurse greatly reinforced this. I first realised how amazing the NHS was when I was six years old and my class was asked to draw a picture of our parents at work. I drew mine in a dark blue dress with a belt buckle with what I thought was Florence Nightingale's face round her waist. "Wow!" I remember the teacher saying and subsequently telling the class that my mum looked after people. I went home proud that my mother was a nurse. A couple of years later, I was the only one allowed to stay at my childminders' an hour later than anyone else *because* my mum was a nurse – it was an important job and they wanted to help us out. As I grew up, I realised how much our friends and family relied on her for advice. She'd always have bandages or steri-strips in the car when someone fell over and she'd always put our lives on hold to help someone. Only a few months ago, a neighbour knocked on her door, clutching a bloody finger, asking for help. Being a nurse is clearly not something you can just leave at work – it was always a part of our lives.

Over the years I started to notice something change. As my mum was a single parent, me and my brother were the people she would talk to about her day at work. And it started to become more difficult. There were staff shortages, pay freezes, and management changes. There was working late and bringing home paperwork. And as kids we had to contribute. Leaving washing up for when she got home was a heinous crime. We were the first to be called on as her sidekick in an emergency and of course we were never allowed to be ill; there were far more ill people at work she had to look after. The vocation of being a nurse has

definitely overflowed into my everyday practices; I have a habitual nurse-like body which (however problematic) itches to help people who are in pain at the expense of myself (and sometimes others).

Although my mum spent a lot of time telling me I should never be a nurse, I couldn't resist staying with the NHS. I was enthralled by the political changes to the NHS long before I started my PhD. In 2012 I went to Parliament to anger myself with the politicians debating the Health and Social Care Act; an apparent milestone in the so-called "privatisation of the NHS". How could they be "dismantling" the one thing I thought was a given in UK politics? The one thing in the UK I had grown up being so proud of (it certainly wasn't the men's football team or our military policy). This was when I first started going on marches, and though I was never able to get my mum along I knew she was glad I went on them.

But by the time I came to get funding for my PhD, I was becoming increasingly conflicted. On the one hand I was an anthropologist who wanted to question everything that's seen as a given. Deconstruct and think like a rhizomatic anarchist who doesn't believe in power structures as tree-like as the NHS. But on the other hand, it's the NHS – it was the one exception to my fear of concentrated power – who, on this side of the political spectrum, with a mother as a nurse, could be against the NHS?

1 | INTRODUCTION: THE HEALTHCARE REVOLUTIONS

“The eyes of the world are turning to Great Britain. We now have the moral leadership of the world.”

Aneurin Bevan, UK Minister for Health 1945-1951¹

The UK’s National Health Service (NHS) has been a highly political entity since its creation in 1948. The promise to deliver free healthcare for all, through a national organisation collectively paid for through progressive taxation is a democratic-socialist ideal that has lasted for at least seventy years. During the period of my research (2015-2019), longstanding debates on whether the NHS can or will survive into the future have come to a political peak. Policy makers are focused on learning from the private sector in order to make the NHS more efficient whilst simultaneously increasing the quality of services. Indeed a landmark policy, the Health and Social Care Act (2012), legislated that private sector organisations must now be able to bid for contracts to deliver NHS services. These policy changes have been met with fierce opposition. Academics, the general public, and now Labour politicians are rallying to “Save the NHS” and resurrect the original democratic-socialist organisation with the Campaign for the NHS Reinstatement Bill (2019).²

Coming to this research as a campaigner who was trying to save the NHS,³ I began hoping to understand how these policies around efficiency and marketisation are affecting the everyday delivery of care. My initial research question was along the lines of: How does introducing private sector actors and market incentives into a publicly funded healthcare system mediate the delivery of patient care? But from my early ethnographic encounters with protestors and policy makers, each group fighting for their own revolution of

¹ From Bevan’s “Vermin Speech” reported 5th July 1948. Available in the Guardian Archive (1948)

² Also see the National Health Service Bill 2017-2019 (Parliament, House of Commons, 2018).

³ See the Preface for a more detailed account.

healthcare in the UK, I started to feel discomforted by their seductively simplified arguments. As I illustrate in this first chapter, the arguments of campaigners and policy makers at first seem impenetrable and irreconcilable. Indeed, even now it still feels like a social taboo to speak out against the juggernaut campaign slogans to save the NHS. Simultaneously coming to this research from the field of anthropology, the idea of untroubled and easily reproduced categories sets alarm bells ringing. In this thesis I therefore use ethnography to take a different tack; a different route in to understanding what is happening in the NHS. I aim to trouble these categories and complicate the simple and entrenched slogans that are instinctively reproduced by both sides of this polemic.

In this first chapter, I illustrate how I began to draw myself away from the (national) pride, and indeed love, I had for the NHS, and the dichotomous debate of protestors and policy makers on how healthcare should be organised in the UK. In the spirit of anthropological study, I begin with two ethnographic texts – one from the time I spent with campaigners, and one from my initial observations of policy makers who are trying to implement change on a variety of bureaucratic levels. I hope that through beginning this thesis ethnographically, I will be able to portray the passion and emotion being sustained around the NHS during the time of my research. I will then bring these together and describe how and why I want to take a different approach to understanding this debate.

The campaigners' revolt to save the NHS

It was finally the big day – 4th March 2017. The samba band had given everyone a sending off on the train down to London to march to save the NHS. The train was packed full of people with homemade signs, campaign t-shirts, and backpacks full of lunch. The carriage was buzzing with excitement; everyone was talking loudly, and fellow marchers were looking over their shoulders to join in the conversation: Do you think the police will turn up? How many people are we expecting to march? What about the media? Oh I doubt the media will pay attention, despite the numbers, they never do... The theme for the day was

#Our NHS. People were coming to London from all over the UK to tell the government who owns the UK National Health Service. This particular march (one of many since proposals emerged for the 2012 Health and Social Care Act) was about the introduction of the Sustainability and Transformation Plans (STPs). The government had just divided England into forty-four geographical ‘footprints’, all tasked with finding better ways to deliver care whilst making financial savings. Although some policy analysts see this as an a replacement for the competitive market model (Alderwick et al., 2016; Ham et al., 2017), the campaigners saw this as further contamination of private-sector thinking into the NHS.

The excitement from the train grew as we approached the march starting point. In the distance there were giant balloons from the unions Unison and Unite. Closer by there were campaigns and political parties handing out signs – I tentatively took a Stand Up Against Racism placard – I still wasn’t sure how much I wanted to participate now that I was there as a researcher. But soon enough I was bouncing the placard in the air as everyone chanted: “No ifs, no buts, no NHS cuts!” We started looking around at the comical home-made signs – a doctor in scrubs proudly held up a sign saying: “The blood on my hands washes off”. Others made jokes about then healthcare minister Jeremy Hunt (what an unfortunate surname when you have protestors at your back). The atmosphere was electric, almost like a carnival. So many people had turned out, the crowd spilled over into the horizon – maybe after today the media, the politicians, and the rest of the public would actually start listening.

It was clearer this day more than ever that the UK’s National Health Service (NHS) is more than just a particular way of organising healthcare. Both at the march and back at the city I’m from, people display posters and wear badges with “I [heart] the NHS”, whilst others vow to fight for it. The NHS is a “national treasure”, an institution which evokes passion, pride, and love. As we were serenading the NHS with *You Are My Sunshine*, we began to get packed into the road, and ended up waiting well over an hour for the march to begin. The older women I was with began to need to sit down – walking is one thing, but standing round for prolonged periods of time can be tricky, and there weren’t any chairs or benches to perch on unless you came out of the march line-up. There were children crying because their backpacks were hurting, or they needed the toilet

– and Pret (a chain café) had closed its doors due to the incredibly long queues for refreshments and amenities. Eventually the wait was over, and people’s perseverance paid off – the march was incredibly uplifting and the hundreds of thousands of protestors who turned out did eventually make the newspapers.

The dedication leading up to this march was most evident in one of the campaigner’s costumes. Tim had decided to dress up as Death coming for the NHS, and though he had ordered some big black gothic boots and a black gown from the internet, the rest of his costume was homemade. He fashioned the scythe out of an old broom handle and a piece of wood he’d carved to make the blade. Then he had crafted a big wooden foot to represent his local STP plan. This was “Footprint 37” and he had written the amount of savings that had to be made in Tipp-Ex - £864 million. Tim hung it around his neck with a chain and carabiners, and had glazed both the foot and the scythe blade because he heard it might rain. “It’s a bit rough around the edges but it works!” he told me excitedly. He certainly drew some attention from the other campaigners, and some of them had even asked him to make their region’s footprint for them.

Tim’s hard work on the run-up to the march was all in dedication to the NHS. As he spoke to me with such enthusiasm, I wondered what it was in the NHS that he, and the others on this march, were so committed to. Unlike other areas of activism that I have been involved with over the years, the talking in pub function rooms actually turns into actions; well attended rallies, meetings, and protests. The local campaign is comprised of a loose core group of about thirty people who lean towards retirement age. Those still in work have to juggle their involvement in the campaign whilst, for others, the campaign becomes an (unpaid) full-time job. There’s a lot of work to be done. Designing leaflets, welcome packs, and newsletters; writing to MPs, local politicians, and other campaign groups; organising events, stalls, and meetings; investigating the local plans for change by searching and reading documents; meeting with people in-the-know, and submitting Freedom of Information Act requests; and extending the campaign to neighbourhoods in the suburbs or in the surrounding towns. When I first went along to the organising committee, the amount of labour being carried out astounded me. This is a cause with much dedication.

This dedication, it has been argued, is perhaps more of an emotional, unconscious, pull towards the NHS' symbolic value than a rational attachment (Gorsky, 2008). The commitment amazes me in the same way as the intricate carvings on church walls fifty metres up – someone had the religious fervour to spend an insane amount of time doing something incredibly detailed for a cause they believed in. This is not dissimilar to the hours spent writing and reviewing leaflets to ensure that every detail is correct and written in a way that will encourage people to take action. On one occasion the local council cancelled one of the public engagement events, so one of the campaigners went through every single leaflet crossing the meeting out and writing “MEETING CANCELLED”, then leafleted tirelessly to ensure everyone got the right information. Others are dedicated to find the truth about what changes are being made to the NHS. They scour the internet looking for local policy documents and organisations' minutes whilst battling to and forth with their colleagues over long email threads to try to get to the reality of which buildings are being sold off, or services contracted out to the private sector.

This level of commitment (including my own in writing this PhD) demonstrates still further the way in which the NHS is more than just a healthcare system. People love the NHS. People have pride in the NHS. And these campaigners feel that the government is taking the NHS away from them. For many, the NHS has an almost mythical value that symbolises equality; 1948 is a moment in history when everyone, rich and poor, was given the right to access healthcare free at the point of use. As described in Chapter 2, it is no coincidence that this great institution was born just after the nationalistic pride of winning World War Two, when Britain was seen as the height of modern, civilised, democracy. The nostalgia is clear through many of the campaigners' stories of being born in the NHS, giving birth in the NHS, or having relatives cared for in their last days by the NHS. All of the campaigners have personal stories about their experience with the NHS, and whilst some still talk about the incredible and caring doctors and nurses while going through chemotherapy or joint replacement, there is increasing discomfort with some of their experiences of receiving care from a service under pressure. And so through t-shirts and tote bags, campaigners hold onto those sacred words: “The NHS will live as long as there are folk with the faith to fight for it”; Nye Bevan's famous quote (that he may not actually have said) becoming a beacon of hope for those on this new battlefield (Belam, 2017).

Importantly, the sentiment of the campaigners is shared beyond the group that go on marches. There tends to be a Brexit-like “which side are you on?” sentiment to the NHS. One day I was working on my PhD in the garden of my local pub and ended up being accosted by some friends who wanted to tell me how much the NHS meant to them. Alex came out first. He’s been involved in the NHS all his life as he has needed a prosthetic leg from birth. “I hope you’re writing this down!” he pointed towards my paper as he told me how the NHS had transformed his life, enabling him to walk and work and all the while feel good about his leg. He goes along to the local Prosthetics Service two or three times a year to examine any damage and occasionally have a new limb cast when it wears out or the technology improves. Not long after, another local, Collette, walked out to join the conversation. Her partner needs a hip replacement and so far, it has been quite difficult – “this is what they’re doing to the NHS!”. Alex and Collette kept interrupting each other trying to tell me how important the NHS is, how much it saves people’s lives, and enables them to live well. This time in the pub isn’t an uncommon experience. The more I talk to friends, strangers, and acquaintances, it’s apparent that the NHS is an institution that affects everyone’s lives. For those on the side of the NHS like Alex and Collette, the NHS is an institution that must constantly be defended - even in the pub.

So when campaigners and those on their side feel that the government is trying to dismantle the NHS, there is a lot of disbelief, scepticism, and, most importantly, anger. When central government seems too far away, the campaigners protest outside local government meetings for the STPs or Clinical Commissioning Groups (CCGs) that have to make decisions on the distribution of funds. Before the meetings start there are samba drums, leafletting, and chants about “people before profit”. When everyone piles into the public meeting itself they come armed with flags, banners, and pre-written questions, hoping that the CCG and local council members who have to help implement the government’s STP plans will be onside. When the children’s services were being outsourced to the private sector, they were really angry so those who were able stayed standing. The Chair asked the counsellors if anyone had any interests to declare – no one did, except from the back of the room: “We have an interest to declare! We want to put our children before profit! And we know that if services get outsourced, they go downhill!” the man holding the trade union flags kept

on speaking until the Chair eventually threatened to throw the public out of the room and hold the meeting in private. The protestor marched out; point made.

The suspicion from protestors sometimes feels justified when contracts that would once have to be made public are now allowed to be kept from the public when it is “commercially sensitive” (Stoll and Bhutta, 2015). And it was ordered that the STP plans should not be published before the Chief Executive for NHS England allowed it (Boyle, Lister, and Steer, 2017). This suspicion results in the belief that every organisational mishap is intentional: as when the local STP and CCG boards change rooms at the last minute, or fail to advertise their events as well as the campaigners might. Almost every meeting begins with a row about the fact that the notes are not produced for people who are partially sighted, or the microphones aren’t working, meaning those needing a hearing loop may not be able to hear. The campaigners are sure that local politicians are trying to obscure their plans. People need to “wake up to what’s really going on”, they would argue. As a result, campaigners’ leaflets are full of bright, bold red writing telling people about the “MASSIVE CUTS” and how “THE NHS IS BEING CARVED UP” – “WITH NO PUBLIC CONSULTATION”. Images of vultures or fat cats taking bricks out of the NHS represent companies like Virgin, Serco, and Coperforma taking over the delivery of children’s services, patient transport, and musculoskeletal centres.

The frustration is sometimes pervasive, beyond the moments in meetings and surfing the internet. Every time I bump into any of the protestors on the street, in the coffee shop, or in the pub, their voice and tone is full of urgency. It’s the kind of frustration that leaves many other people I know to switch off from politics, give up on the NHS, because it’s all too much, but here their bodies sustain the anguish, the fight that Nye Bevan insisted they make. Sometimes people do just burn out, like at the campaign strategy day, where everyone left feeling exhausted. “We need to get to the *people!* – the people *out there!*” I wondered who these othered people were who they were referring to. At times this seemed like a difficult fight against mainstream politics.



A leaflet handed out by local campaigners (own photo)

Some hope is provided to the campaigners by a group of policy analysts who make it their life's work to support the campaign to save the NHS. Those such as Allyson Pollock, Martin McKee, and Lucy Reynolds who are half 'in the system' through their university ties, act as hero, Robin Hood-like figures who are able to really *prove* the case. I saw campaigners get excited at the prospect of one of these figures coming to speak at their events, because they would be able to speak truth to power. Whilst this group of academics are heterogeneous and disagree at times, all have made careers with papers suggesting that introducing contracting to private sector providers and making financial savings in the NHS is detrimental to healthcare and equality (Pollock, 2004, 2015; Reynolds *et al.*, 2011; McKee and Stuckler, 2011, 2014; Pollock and Price, 2011; Reynolds, 2011; Reynolds and McKee, 2012; Davis *et al.*, 2013; Davis, Lister and Wrigley, 2015; Boyle, Lister and Steer, 2017). Allyson Pollock's (2004) *NHS Plc*, Jacky Davis and John Lister's (2015) *NHS for Sale: Myths, Lies, and Deception*, and Leys and Player's (2011) *The Plot Against the NHS* all support the suspicions of campaigners that much of this work is done in secret with ulterior motives to "undermine the ethos of the NHS". McKee and Stuckler, on the other hand, focus on giving macro-economic analyses to show the effects of austerity and neoliberal policies on health inequalities across Europe (Stuckler *et al.*, 2009; Stuckler and Basu, 2013). Despite different tactics, this group of health services research scholars focus on the effects of neoliberal economics (where public welfare expenditure is cut to pay back government debt and deficits) on health and particularly the NHS in the UK.

Partly as a result of this research, many campaigners feel the fight is against something bigger and more monstrous than themselves; it is about a whole overarching economic, political realm that gets called neoliberalism. They do not, however, see this system as unbeatable. Through rising up from below in the Labour Party they have managed to get Jeremy Corbyn close to power, and he speaks at their rallies to support the Campaign for the NHS Reinstatement Bill (2019). Whilst there are often setbacks such as Brexit or the news of Boris Johnson becoming Prime Minister, the nostalgia for the NHS as it was at some point in the past keeps people going. The love these campaigners have for the NHS urges them to put in all their time, energy, and emotion, burn out and come back to it again from a different tact. At times it feels like they are prepared to put their everyday life on the line to save the NHS.

The policy makers' revolution to transform the NHS

I was squished at the back of a makeshift speakers' platform in the London Olympia conference centre watching a panel on the latest NHS reforms – the STPs. “This is a revolutionary moment! These plans disrupt because they're meant to disrupt!” A man on the panel was responding to a question from the audience who was concerned about the instability that yet another upheaval in the NHS might cause. Another panel member switched on her microphone – “To be honest I wouldn't worry, from our perspective the STPs look as though they'll just be another Plan that remains a Plan. The real way forward at the moment are ACOs – Accountable Care Organisations. These contracts force organisations to work together, so they eliminate competition between providers!” The excitement amongst the panel was noticeable. But back where I was squished against the fake plastic walls, everyone just looked bored and tired.

I was at the UK Health Show, which advertised itself as having the four biggest health conferences all in one place – on Procurement, Commissioning, Cyber Security, and Technology and Efficiency. It was aimed at pretty much any manager figure in the NHS who had a big budget to spend: hospital directors, CCG groups, procurement teams. All levels of a management were welcome. Walking round the show, I realised just how far the NHS had come from the image of Aneurin Bevan's post-war NHS. The whole space was a marketplace, with a maze of stands selling a plethora of services I never even knew hospitals needed: rota planning programmes, patient data management systems, and services to streamline your delivery and compare the price you're paying for needles and catheters. Even Vodafone had a pitch selling some form of connectivity. People in suits tried to grab a colleague and I as we walked past their pitch, whilst others stood back behind a podium staring silently into the distance. The loud hum of hundreds of voices in such a big open space completed the trading-floor atmosphere, where hundreds of people were buzzing about the latest app, programme, or method of contracting which is going to help the NHS.

There were many people at this show who were determined to transform the NHS into a more efficient service fit for the future. Along with local policy maker

General Practitioners (GPs) in the CCGs, they are concerned that the NHS will not be able to survive given the current “challenges”. There were a number of arguments that I heard repeatedly at STP, CCG meetings, and this conference alike. The first is that “we”, the UK, has an ageing population; they are concerned that people are living longer and that this growing demographic group is more likely to need care. The second, they would urge, is that we are facing rising demand in the NHS because people are getting more chronic illnesses such as diabetes and COPD. Third, healthcare is getting more and more expensive as new treatments and technologies become available. And finally, alongside all this, our finances in the current economy need to be restricted. We can’t go on spending more and more on an ever-expansive NHS; it is unsustainable. These stories, often told with impassioned voices (and also perhaps an air of desperation), create a sense of urgency for the situation. The only other option of the “do nothing approach” is regarded as unfeasible, so, as the argument goes, “we” must now work together to make an NHS that can survive into the future.

Importantly for these policy makers, these changes must be done bottom-up from the local CCGs. In local meetings they claimed that they “do not believe there should be any further top-down reorganisation of the NHS”, as not only are people tired of change, but the system may not be able to cope with more changes in managerial infrastructure. Rather, solutions should be driven by what works locally, rather than what is being imposed top-down. They argue that this revolution from below will ensure that plans are “truly place-based” and fit for the specificities of each area. To do this the CCGs have been holding local events for the public to come and tell them what they want and need from their local healthcare. They want to feed these ideas back into the STP plan so it is a truly collaborative process. However, whenever I spoke to them at the events, they were slightly annoyed that they always seemed to be taken over by campaigners – they (like the campaigners) want to reach the *real* people, the *real* public. They want to ask them about some of their latest innovative ideas like moving all the stroke care to one of two hospitals and providing more care in chemists. It is through these innovations and service developments, where local people and NHS managers throughout the hierarchy can have influence on local policy, that policy makers at all levels seem convinced they can save the NHS.

This means that the vision for change is slightly different in different areas. In the CCG meetings I attended they had identified nine “levers” to drive change that include things like bringing more care into the community and creating multi-disciplinary cluster teams to ensure complex care is co-ordinated. A commissioner in another area suggested we should start to think about contracting for care in the same way as Sainsbury’s contract for their oranges: they don’t specify how the oranges should be produced (except perhaps with a few end-labels like organic or Fairtrade) but they specify based on the end product – is the orange a good quality orange, is the service a good service? It’s ends not means. Another popular solution is integrated or joined-up care, where notions of citizen or patient “empowerment” are thought to lead to lifestyle changes to improve smoking, eating, and exercise habits. In this way, these innovations are not only thought to save money, but are also aimed at improving the quality of care and tackling some more long-standing problems in the NHS.

Whilst at times I see people wanting to learn from the way in which they source oranges in the private sector, it is also about showing the private sector who is in charge. Through government-funded projects, it’s become apparent that NHS Trusts are paying widely different prices for their equipment, including everyday single use things like catheters and patient drapes, as well as hip implants and hospital beds (Briggs, 2015; Carter, 2016). As a result, a team of nurses presenting at the UK Health Show, along with DHL, the delivery company commissioned to organise and manage the NHS Supply Chain, have come up with a rating strategy for various products. They’ve started the project by product-testing six categories including syringes and latex gloves and have worked with NHS Improvement to put together a system whereby all NHS hospitals can examine what other hospitals are paying for their products to help them negotiate with suppliers. The nurse urged the audience to subscribe to the system and buy their stock from the NHS Supply Chain, as the more Trusts that join, the greater the database becomes. “It really is a social movement, by the NHS for the NHS” she implored, “we have got to make sure these companies don’t take us for fools”. I glanced over to the representative from DHL, the delivery company profiting from all this.

As this nurse suggested, the industry really is starting to listen. Walking through the exhibitors of the show, companies such as Storm IT Systems directly recognise the fact that “The UK healthcare sector is facing its greatest set of challenges in decades”. Their solutions are therefore centred towards utilising the latest tech and digital products to streamline services for the future; they can stop your “communication lines being swamped by routine enquiries, such as appointment bookings”. Another company claims that its patient flow management tool, ‘Insight’, will enable a consistent and structured patient experience, whilst others try to utilise the quick and easy way in which people communicate on their mobile phones for doctors’ appointments. The technology and digital industry, including big names such as Vodafone,, have built up an infrastructure to help in this healthcare revolution; to harness technology to make the NHS more efficient.

Like the campaign to save the NHS, there is also a kind of academic industry around these changes to the NHS. People pay to go to big national meetings run by The King’s Fund or the Health Service Journal (HSJ) where they get excited about change and exchange ideas (Health Service Journal, 2018; The King’s Fund, 2018). Along with other think tanks and university departments these organisations also produce articles, thought pieces and guidance documents that claim to take an apolitical, ‘scientific’ point of view to affect policy in the making. But the focus on the very recent past can sometimes make it feel like a daily politics show, a plethora of information, unconsumable with the rapidity that it’s disseminated (Gorsky, 2008). This has prompted organisations such as the HSJ to offer subscriptions to HSJ Solutions (the largest evidence-based repository of NHS best practice) and HSJ Intelligence, which “provides exclusive information [allowing] you to initiate earlier, more valuable client conversations”. In this way, policy makers can keep up to date with the social movement on anything from contracting (How do we make providers accountable?), organisational set ups (Are STPs or ACOs the next best thing?), or purchasing (Are some hospitals better than others at negotiating the price of latex gloves?). This academic industry, which has a market of its own, is here positioned towards helping the NHS bureaucracy to become more efficient.

But among all this reorganisation, selling, and partnershiping, there is still a pride in the NHS. Mark, the commissioner who told me about the Sainsbury’s

oranges, wore his NHS lanyard proudly and grabbed it as he told me how honoured he was to work for the NHS; “even us suits are still proud,” he insisted. And so are some of the companies coming to save the NHS from its financial difficulties; they too are “proud” to be partnering with the NHS. There are times when it is clear that the introduction of private sector involvement is not seen as destructive of NHS principles, but is about helping these policy makers and implementors to save the institution that they hold so dearly. The local CCG group told me about how, like the campaigners, they are struggling to get “the people” onboard, and to include their voices. They hold local engagement events such as “The Big Conversation” to try to get people to come and give the public voice. And by this, they specifically, don’t mean the campaigners, but really “the people”, who they want to have a say in how their public services are run.

Indeed, not all of these policy bureaucrats completely took on the mantra of using the private sector to make economic savings, or even that savings should be the first and foremost objective at all. Many of them are just doing their jobs – and focussed on “doing the best with what we’ve got”. Some of the commissioning groups would talk to me in lowered voices whilst I was observing in a local STP planning meeting. It wasn’t as glamorous as I thought these planning meetings would be, in that run-down football stadium, drinking instant coffee. “It’s a fairy tale!” they’d whisper to me in between speeches. When one of the attendees questioned the fact that local NHS Trusts have started to act like businesses, the management team reminded her that “we do live in a free market after all, and we can’t change that”. When another asked about where the money was coming from to make all these transformative changes, the STP management informed the audience that “it’s a bit chicken-and-egg with the money, but we really *can* do this and we *must* do this to make the NHS sustainable for the future”. Over the course of my fieldwork, it became noticeable that people in these STP and CCG management positions get incredibly stressed, and their positions keep having to be refilled as people leave, too disillusioned to go any further.

Whilst many claim that there is a revolution, or a social movement, around improving the NHS, this revolution seems to stop if the conversation ever comes to funding. For some, the growing population really is a threat to the existence

of the NHS, but they are doing everything they can to save it from economic catastrophe. With all the innovation coming both from within and outside of the NHS, they are optimistic that we can revolutionise the NHS into shape. For the more pessimistic, however, it is not the economics blocking the NHS, but the politics – a politics that is too high to reach and far out of their control. Whilst this group do occasionally make a protesting remark, they eventually have to resign to doing the best they can with what they've got - take part in practices labelled 'damage control' – until they end up leaving their jobs in exasperation.

Asking another question to find another way in

In these two ethnographic texts I have presented two highly impassioned groups of people, with two highly impassioned arguments. Within the dogma of needing to make a “sustainable NHS”, the main things being sustained are the politics of “saving” the NHS by making the NHS more efficient, alongside a campaign to “save” the NHS from these efficiency processes. There are a number of reasons why these arguments are so lasting. The first is because both arguments are grounded by strongly held assumptions which are very difficult to challenge within each social group. With the policy makers, it was clear that you would get shut down if you questioned free market economics or the need to make efficiency savings in the NHS – the only, single, other option in their eyes was the “do nothing” approach. For the campaigners, the argument stops at the assumption that the creation of the NHS in 1948 was the most important act for improving equality in the UK. The nostalgia in the arguments, and the looking back to “save” The NHS, as it was before, makes it difficult to criticise it as an organisation at all. To criticise is to be on the side of the policy makers trying to dismantle this beloved organisation. Indeed, whenever I tell anyone the title of my thesis, they assume that I want to privatise the NHS. The rank and file of each group to stick by these assumptions is the first step to ensure their continued strength.

The second reason these arguments are so well sustained is because each see the others' assumptions as somewhat delusional – a non-rational form of argument that doesn't even deserve to be addressed. For the policy makers the

campaigners aren't even part of "the public" that they are trying to reach. Campaigners are seen as over-emotional and disruptive of public meetings because they just don't realise the extent of the economic situation they are in. Looking back to a past NHS is to not acknowledge the vast growth in population or the global economic crisis; they are deluded. For the campaigners, it is the policy makers who are deluded; having the wool pulled over their eyes. The government is only using the story of the economic crisis to make a market out of the NHS, open it up for their friends and colleagues to earn money out of healthcare as they do in the USA. The NHS is only the NHS in their eyes, if it is both owned and delivered solely by publicly owned organisations, that are not being asked to make profit. Anything else just has the name NHS without the values; these policy makers have just been tricked into thinking it's the same thing. With each seeing the other as making delusional, irrational, forms of argument, it makes it hard for each side to have a conversation where they value what the other is saying. Their arguments are maintained.

But the third and final reason these arguments are so well sustained is actually through something they have very much in common – the way they see policy as operating in a hierarchical manner. This approach is reflected in the health services research on both sides of the agenda, where they view the world and their research that relates to it as macro, meso, or micro level. As explained further in Chapter 4, researching the macro level is about the overarching economic policies such as the effect austerity, Brexit, or a Labour government might have on healthcare. It also refers to the Healthcare Acts that go through Parliament and to how Simon Stevens, the Chief Executive of NHS England, responds to these policies. The meso level is about how those policies from higher up get implemented. If some of the powers have been devolved as they have been to CCGs and STPs, then they might look at how those powers are being used, and what effect this has on the delivery of healthcare services. The micro-level of healthcare is often researched with interviews or particular forms of ethnography. These scholars aim to understand how healthcare workers deliver everyday care 'on the ground', and how this affects patient experiences. This way of doing research holds up a hierarchical structure of policy, where there are overarching economic factors and decisions which influence the meso-, and then on down to the micro-level of organisations. By seeing distributions of power in this way, campaigners and policy makers hold

up their respective “spirit of capitalism” - neoliberalism or a need for austerity - as the overarching problem. In doing so they hold their worst enemies, the thing they want to fight against, suspended in power above them.

It’s important to note here that both revolutions claim that agency can, and should, come up from below. The protestors still make a point with their samba drums outside local CCG and STP meetings, and they still urge meso-level policy makers to take a stand and refuse to comply with the macro-policy imperative. Campaigners also strategise to get all “the people” onboard with their campaign so that the government finally listens. The policy makers, on the other hand, have put in a concerted effort to devolve powers to hospital trusts, and local GP commissioning groups with the idea that they can respond to local population needs and innovate to find new, more efficient ways of delivering care. There are then initiatives that try to collate good, efficient, innovations from the ground up to share best practice across wider teams. In these ways, both sides of the argument believe they’re being revolutionary in their approach – democratising power structures and getting everyday people involved.

But whilst both agendas claim to encourage agency from below, they still hold the hierarchy in place – these changes are just coming from lower down in it. The campaigners are trying to rise up to convince policy makers to change their minds, or find representatives such as Jeremy Corbyn who can take power at government level. They still believe that it is only by changing the prime minister, or the healthcare minister, that policy, and therefore the fate of the NHS, will change. For policy makers, too, it is only because they have given the freedom to make decisions to GPs and regional bodies that they have this power, this agency. Those who are implementing policy can only provide case studies that they feed up to higher levels so that they can share their knowledge around, it doesn’t have a direct effect. In viewing power in this hierarchical fashion, both sides of the argument assume that policy exerts power from above, and that other actors implementing it, or delivering and receiving healthcare in hospitals and communities, are subject to that power.

As explained further in Chapter 4, the danger of seeing policy makers as above other actors, is that we completely miss, or actively dismiss, the ways in which other people and things act on the world. The understanding that policy and the

state's power is a sovereign actor, only appear natural because of a process where state authority is normalised as existing in truth (Foucault 1977; Fairclough and Wodak 1997). And importantly, the more we imagine this tree-like power structure to exist, the more presence and therefore power we give it in practice (Deleuze and Guattari, 1987). Rather, meaning and therefore the physical world is created through the embodiment, and the formation of relationships between, social actors, objects, language, signs, and symbols that come to represent and produce relations of power (Latour, 1993, 2005; Olssen, Codd and O'Neill, 2004, p65; Bourdieu, 2010; Wodak and Meyer, 2014, p7) Meyer 2014, p.7). I want to see the language used in policy directives and organisational papers, as a form of social practice just like any other (Law, 2004b, p.142). And to see the ways in which policy makers affect care in the same way as any other agent in the room – scalpels, healthcare assistants, and the patient bed. Because policy, implants, patient experiences, and managers' decisions are all constituted by habitual practices and multiple other agents (Foucault, 1984; Taylor, 1995; Bourdieu, 1998; DeLanda, 2006). No particular actor in this assemblage, such as a policy document, has, a priori, more weight to it. Rather I will view power as arising through particular relations, the condensation of actors in any one time or place. In doing so, I will show the NHS in a different configuration to the versions manifested by both campaigners and policy makers.

Considering these two versions of the NHS at the very beginning of my PhD research, made me reflect on what it is that had kept me so enthralled for all these years – why had I spent so long loving the NHS? As I will explain further in the next chapter, I would like to distance myself from the national pride that comes with the NHS. Whilst I may well have been swept up in some of this implicit patriotism, on reflection, this is something I have found it is important to distance myself from. Rather, the thing I loved about the NHS when setting out on this research journey, was the dream or hope of equality that it provided. Just as I don't want to assume power relations through the hierarchy of structures and agents, neither do I want to assume outright that 'public' practices are those that produce equality. Indeed, through Chapters 2-5 it will become clear that there is good reason not to trust that 'public' collates well with 'equality'. As you will gather from reading this thesis, the research question therefore changed throughout my fieldwork, from one about public

and private actors, to one about how equality and inequality get practiced through healthcare work in the UK.

In order to evade, or even collapse, the assumed hierarchies of the NHS, I ensure my methods do not restrict me to one place, or to measuring one kind of thing. I therefore use a form of ethnography that is not only multi-sited, but which deliberately crosses the boundaries these existing revolutions use to structure and organise their thoughts; I don't mean to practice the kind of ethnography that gets situated in the 'micro' in the health services research literature. Rather, I see how the NHS is connected up without these imagined boundaries, not only to follow the trouble, but also to follow those connections that may seem banal. For it is often the everyday, habitual actions that can reveal most about what is being delivered in healthcare within and related to the stitches, medicines, and implants. I look to the routines of company reps coming to inspect the equipment, and of often unnoticed people scrubbing blood off scalpel blades or making patients a cup of tea. I look to at the role of crutches, the socks that keep the blood pumping to avoid blood clots, and the restaurants that feed networked surgeons, medics, and policy makers. These are the routine actors that are often missed. Ethnography allows me to move between these places and practices, and to understand how they connect when actors such as surgeons and physios are often blind to the connections themselves.

For this kind of work, and in an organisation so bureaucratic and hierarchical as the NHS, I need some kind of hook – something that requires me to travel across the imagined-therefore-practiced boundaries of policy levels and the NHS itself. A case like those in the most thrilling of police-crime dramas; pinpoints and connections sprawling across the wall in the most unexpected directions. For my starting point, I have chosen hip replacements. Perhaps not the most thrilling of cases, but chosen because of its seemingly standardised, and routine format; a discrete episode of care viewed as perfect to be sold and outsourced to the private sector. In the next chapter, I explain the prosthetic hip's strange parallels with the history of the NHS and how it gave me a different route into understanding the everyday practices that take place in it. This hook took me into surgeon's conference halls, policy documents, local arthritis patient groups, surgical theatre, patient wards, instrument sterilisation units. It also took me to a small northern town called Wrightington, where I got to know

more about John Charnley, the man accredited as “The Father” of modern hip replacements. Following the hip from the physio assistant on the ward and the family member helping someone recover at home, to the shiny advertisements in conference halls, and meetings to increase the quality of data collection, allowed me to see the NHS in a way that cut through the hierarchies viewed by campaigners and policy makers.

So what, briefly, is to come? After retelling the genesis stories of the NHS and hip replacements alike in Chapter 2, I move on in Chapter 3 to equip myself with a set of sociological and anthropological literature that has historically focussed on understanding the everyday practices of healthcare. Here I move away from the health services literature that is used by campaigners and policy makers, and address the body of literature which has long sat uncomfortably next to my devotion to the NHS. Rather, I look at the making of the medical habitus - sex, drugs, and cadavers - and attempts to unmake it through evidence-based medicine and care practices. Whilst this literature often refrains from engaging with live political debates such as what should happen to the NHS, it does allow me to build a more practice-based and historical understanding of the NHS in later chapters. In Chapter 4 I then move on to talk about how I mentally and practically put down the campaign placards, to find ways to think about the NHS differently. In doing so, I develop a practice-based theory-method that allows me to retain an activist positionality, whilst holding onto the literature that sat so uncomfortably beside my identity as an NHS campaigner. In Chapter 4 I also explain in more detail how I flatten the world to find ways to cut the NHS differently.

I then move onto my first official ‘data chapter’ in Chapter 5 - although I think there is ‘data’ in all the chapters. It is here that I explain the inequalities I observed in the everyday delivery of hip replacements - where some patients are attended to more than others. In this chapter, I suggest the inequalities I observe are about more than neoliberalism. I begin to argue that there are inequalities in the NHS that are much more ingrained than the campaign slogans suggest. This leads me to draw on the historical stories of John Charnley alongside my ethnography in Chapters 6 and 7. Drawing on this data allows me to see an intersection of the NHS that cuts across time as well as space. In Chapter 6, I specifically develop the argument that the inequalities I presented

in Chapter 5 are about far more than neoliberalism. Rather I look to how the pursuit of prestige, upper class status, and masculinity amongst surgeons actually comes to affect the way in which care is delivered. The inequalities amongst staff in the NHS get replicated in the everyday delivery of care. In Chapter 7, I look to how these inequalities are maintained through quantitative data practices, where “data is king”. Here I comment on contemporary literature that uses draws on tinkering as a practice of care to bring a more historically feminised form of labour back to the fore. It is at this point in the thesis that I suggest we need to return to thinking about values as well as practices. In Chapter 8, I finally come to the question that I think needs to come at the end of every book, article, or thesis: What is to be done? In this chapter, I draw on some final stories to think about how to do activism in the NHS differently.

2 | GENESIS

The creation of the NHS

In the beginning, on July 5th 1948, a Labour Party health minister called Aneurin Bevan created the National Health Service. Many of the hospitals were a vast waste after the bombings in the war, but the spirit of Bevan hovered over the hospital beds and stethoscopes. Bevan said, "Let there be a comprehensive tax-funded healthcare system in the UK," and he saw that it was good. He separated the publicly-funded system from the privately-funded system, and called the publicly-funded system good, and the privately-funded system greed.

Growing up in a poor Welsh mining village, Bevan saw that young children were dying unnecessarily of tuberculosis and diarrhoea, so Bevan said, "Let us find the resources to stop these people suffering,"; and so it was. Bevan saw that he needed to rebuild hospitals, and invest in equipment. Then he saw that he had to hire more nurses in order to treat the people, so he created an NHS workforce in his own image; in the image of a fair and equal society he created them. Bevan blessed them and said "as state-salaried employees you shall care for the sick and needy", and so it was. "The eyes of the world are turning to Great Britain," Bevan told his people, "we now have the moral leadership of the world." From then on the 5th of July was known as the birthday of the NHS, because it was the day the people of Great Britain began to make their society more equal.

A parody of how I get told the creation story of the NHS

Seventy years later, this is almost how I hear the story being told. Whilst I draw on these more romanticised versions of the NHS in this brief chapter, I also describe the version of history which gives the NHS a more difficult beginning. Through telling these multiple histories of the NHS, I hope to highlight the taut love-hate relationship governments and at times the general population have had with it. I will then move on to describe how hip replacements are situated within this NHS history; for they have a strange parallel having been pioneered

in the fifties and sixties. The aim here is not only to explain why I have chosen the example of hips but also to introduce the intersection, or the version of the NHS, on which I focus my ethnography.

The god-like narrative I concocted as an introduction to this chapter is not so dissimilar to the version I often hear told. As described in the introduction, Aneurin Bevan is held up as a hero-like figure by NHS campaigners and those who support them. He is celebrated for growing up as a regular working class boy in a Welsh mining town, making his way to government through the trade unions, and, being “driven by a deep sense of injustice” (Thomas-Symonds, 2018). Back in Blaenau Gwent, where Bevan represented as a Member of Parliament, there is now a shrine on the hill that looks a little like Stonehenge. They are called the Aneurin Bevan Memorial Stones⁴, and there is an Aneurin Bevan Day to celebrate him in his home town Tredegar (BBC, 2018). The NHS is celebrated as a response to one of the “Five Giants” - Want, Squalor, Idleness, Ignorance and Disease- identified by the Beveridge Report in 1942. In the middle of what gets called the People’s War, Beveridge published a plan for a fairer and more equal post-war Britain. It was about looking after everyone, from cradle to grave. This report was the basis of the British welfare state, of which the NHS was one of the main pillars (Timmins, 2001). This narrative, though, is also one that is inflected with national sentiment. The making of the NHS into law was not only seen as a win for the working classes, but as a national post-war triumph, giving the UK “the moral leadership of the world” (Guardian Archive, 1948). The colonial narrative is sometimes unmissable; in the same celebrated speech, Bevan declared that “before many years are over, we shall have people coming here as to a modern Mecca, learning from us in the twentieth century as they learned from us in the seventeenth” (Guardian Archives, 1948).

In another version of events, it wasn’t actually quite so easy for Bevan, for there was another power working against him; that of the medical profession (a profession I explore further in Chapter 3). When Bevan came up with the plans, the Royal College of Physicians and the British Medical Association were actively opposed to the idea (Klein, 1989; MacMillan, 2008). They were

⁴ See Blaenau Gwent County Council (n.d.) for a description and image.

worried that being employed by the state would mean a loss in their professional autonomy – they were a profession so it should be they who gets to decide if, how, and when a patient gets treated (Friedson, 1970). It was only through negotiating a number of concessions that doctors began to come round to the idea: doctors could still practise privately outside their NHS contracts; General Practice surgeries could still be run as businesses and the NHS would buy their services, and the government would put in money to rebuild the hospitals which were damaged in the War (though this actually took longer than anticipated) (Klein, 1989; Hand, 2015). Whilst some doctors report being won round due to the argument that patients would not avoid going to the doctor because of the cost, the main tactic Bevan used to sway doctors was an advertisement campaign he put through people’s letter boxes saying “Choose your Doctor Now”. Doctors began to worry that they would lose out on business if they did not put themselves forward as an NHS doctor (MacMillan, 2008).

The public campaign also had to convince the middle classes who could already afford a private GP. Broadcasts in the cinema and television used a “but what if...[e.g. you broke your leg]” storyline to convince them that they might one day be in need (Batchelor and Halas, 1948). It was successfully advertised as the height of modernity, with imaging machines that could see inside your body and technologies which many had never seen before. As Hand (2015) explains⁵, even the middle classes had to be impressed with the cutting-edge nature of the healthcare they could now receive. It wasn’t just positioned as an institution to help the poor, despite that being conveyed as Bevan’s overwhelming motive (Thomas-Symonds, 2015). The most state-of-the-art hospitals previously associated with costly, perhaps unobtainable treatments, were now equally part of the NHS, free at the point of use. The majority of the population therefore signed up for the new NHS, and Bevan had the difficult task of ensuring there were enough hospitals, beds, and nurses (in fact he had to drive a big recruitment campaign for 30,000 extra nurses), before his immovable deadline of the 5th July 1948 (MacMillan, 2008; Hand, 2015).

⁵ Also look out for Hand, J. ‘The NHS on Film: Health Care, Technological Modernity and the Citizen in the National Health Campaign of 1948’ (In preparation for submission to Twentieth Century British History)

Over the years, the NHS has become a national symbol, even more mainstream than the celebration of Bevan by campaigners. It was celebrated through dance in the London Olympics opening ceremony with a group of Florence-Nightingale-style nurses parading round and reading books to children in iron-framed beds (Boyle, 2012). And unlike any other healthcare system, the NHS has a birthday. Local hospitals hold summer fairs with raffles and cake stalls to celebrate and cafés advertise free teas and coffees for NHS staff. The BBC put on a number of programmes for the occasion. One of them was a feature-length video-poem “in the voice of the NHS” (Sheers, 2018), taking the viewer on a life journey from how the NHS helps us in birth, to how it helps us in death. In all seriousness, it *was* a love poem. The inflection of nationalistic sentiment continues in the NHS, beyond Bevan’s initial declarative speech and beyond the post-war dream. At times this nationalistic sentiment moves into outright nationalism. The NHS was used on the side of Brexit campaign buses to convince people to vote for an isolationist break with the EU. The nationalistic sentiment to the NHS has also emerged through the introduction of more stringent regulations and overseas officers to ensure non-British people pay for their healthcare, and to the introduction of the PREVENT programme to police suspected terrorists through healthcare services. Even in more mainstream politics, Nick Robinson, a long-standing BBC commentator, for example, suggested that the NHS “makes many people proud to be British” (Bagnall, 2018). And I still hear people talk about it as if we have some moral standing over places like the United States, who don’t provide healthcare free at the point of use.

But we don’t always celebrate the NHS’ birthday in the politest of ways. This BBC (2018) discussion programme wasn’t only about celebrating the NHS, but critiquing it, asking sofa-celebrities whether they think it will survive. The London School of Hygiene and Tropical Medicine had a ‘celebratory’ panel discussion with an equally sombre tone; it was entitled “Does the NHS have a future?”. Whilst arguments about the costs of an ageing population and fast advancing technologies are often presented as new, they have been about in many formulations since the fifties and sixties (Klein, 1989; Gorsky, 2008). What changed in the Thatcher years was the cross-party commitment to maintain the NHS as it was made in 1948. The Conservative government of the late eighties and nineties encouraged non-clinical services such as



A birthday party invitation from a local hospital (own photo)

maintenance, cleaning, and catering to be outsourced to the private sector (Reynolds and McKee, 2012). This was also when the internal market was introduced, where public sector organisations had to compete for contracts to deliver services (Klein, 2013). Whilst this was briefly removed when the Labour government came into government in 1998, it was reintroduced a few years later alongside Independent Sector Treatment Centres (Pollock and Godden, 2008; Naylor and Gregory, 2009). These new centres were commissioned to deliver routine operations and were a milestone in allowing private sector organisations to deliver more clinical care. Many scholars were either part of, or argue against, a shift in political consensus over these decades; as discussed in the introduction, incorporating private sector values, mechanisms, and organisations themselves became a controversial topic discussed passionately in the literature (Pollock, 2004, 2015, Le Grand, 2009, 2010; Bloom et al., 2011; Cooper et al., 2011; Reynolds et al., 2011; McKee and Stuckler, 2011, 2014, Reynolds and McKee, 2012, 2015; Davis et al., 2013; Le Grand and Cooper, 2013).

The most recent statutory changes came with The Health and Social Care Act (2012). This piece of legislation allowed “any qualified provider” (see s62[3]) from any sector to bid to provide any clinical or non-clinical healthcare service. This means the healthcare service is still publicly funded but not necessarily publicly provided. The NHS healthcare organisations that do exist have been required to become Foundation Trusts which have to mimic private sector organisations by being financially independent, responsible for their own profit or loss (Department of Health, 2005). The idea is then that NHS Foundation Trusts can compete with each other and Independent Sector Treatment Services to deliver the best care. Competition is implemented by giving patients a choice between providers, which is guided by a platform called NHS choices (Le Grand, 2009; Elwyn et al., 2010). NHS Choices not only gives state-sanctioned healthcare information, but also provides comparative statistics between different providers and a Trip Advisor-style rating and review system to help prospective patients choose where to get treated. Whilst there is now a bit of a retreat on the state-sanctioned competition narrative (for example see Alderwick *et al.*, 2016 and Ham et al., 2017 on the Sustainability and Transformation Plans that encourage partnership rather than competition), the policies on Foundation Trusts, NHS Choices, and competition remain active.

For the campaigners, this piece of legislation has fundamentally destroyed the ethos of the NHS, and they are looking to politicians such as Jeremy Corbyn and Caroline Lucas to resurrect the NHS with the NHS Reinstatement Bill (House of Commons, 2018; Campaign for the NHS Reinstatement Bill, 2019). These academics see the NHS as under threat in the Political present (Pollock, 2004; Pollock et al., 2012; Reynolds and McKee, 2012; Davis et al., 2013; Davis, Lister and Wrigley, 2015), and suggest that the morality of the public service ethic should be enshrined in law (Pollock, 2015). As discussed in Chapter 1, they fear that the encroachment of the private sector will not only mean private companies profit from care, but may also mean the NHS is no longer free at the point of use for everyone in the UK. For some it could be the end of Beveridge's project to defeat the Five Giants; it could be the end of the welfare state (McKee and Stuckler, 2011; Pollock and Price, 2011; Pollock et al., 2012; Reynolds and McKee, 2012). Whilst the academic and public discussions around the delivery of healthcare are still ongoing, and to some the NHS seems under threat, the chair of the panel at the London School of Hygiene and Tropical Medicine seemed a little more hopeful. He wrapped up the discussion by suggesting that we should all look forward to celebrating the NHS' 80th birthday in ten years' time.

Whilst I don't have sufficient space here to cover the vast field of health services literature on the NHS in this brief overview, I have shown that the NHS has multiple histories which informs these positionalities (see Klein, 1989; Timmins, 2001; Pollock, 2004; Gorsky, 2008; Le Grand, 2010 for a variety of these). Nevertheless, most of these histories see the NHS as Bevan's work, and as an NHS negotiated largely with *men* of the state, the medical profession, and the middle classes. Importantly, Bevan's NHS has been morally reified with an underlying nationalistic narrative. The NHS is a *National* Health Service, a post-war project that sets the UK out from the rest of the world. As the story of the NHS unfolds, it is the presence of private-sector actors that everyone is arguing about. Academics and commentators differ in their analysis of the effects of this policy scenario, but for all parties, the introduction of private sector actors is the big change we should all be talking about. Whilst the save the NHS campaigners claim the growing exclusion of who the NHS should be for is part of this privatisation, I would suggest it also has to do with the nationalistic narratives of Bevan's NHS from the beginning. As I suggested in Chapter 1, the

NHS is more than just a particular way of organising healthcare. It is a precious British institution, which, sparks passionate debate on all sides of the argument. Ironically, the NHS has long only functioned because of the high levels of migrant labour, including the invitation for Caribbean workers to come on board a passenger boat called Empire Windrush in 1948 to come and fill much needed nursing positions in the NHS (Culley et al., 1999; Younge, 2018). Overseas recruitment drives have continued to recruit people who don't necessarily identify as British to fulfil crucial roles in Britain's National Healthcare Service (Gillin and Smith, 2020). . Escaping the unnecessary and destructive nationalism behind the NHS is therefore yet another reason why I have chosen to look at practices of equality and inequality rather than hold onto the hope of the NHS as a slogan, model, or a single thing in and on itself. As explained previously, in order to escape this dichotomised debate, to think about the NHS differently, I draw on a more specific, situated example. In the next section I explain how the strange historical parallel of hip replacements enabled me to see the NHS through a different lens.

A parallel creation story: The invention of the prosthetic hip

In the beginning, a great orthopaedic surgeon called John Charnley created the prosthetic hip. Bodies were faltering in form, and were void; darkness was upon many people's lives. But the spirit of Charnley hovered over the arthritic hips and his workshop bench. Charnley said, "Let there be a fix for your aching hips," and he saw that it was good. He separated the plastic from the Teflon, and called the plastic good and the Teflon bad.

Having begun his creation, Charnley saw that people were getting infected from the operation, so Charnley said, "Let us find a way to remove the bacteria from their open wounds", and so it was. From that day on the people had his creation, and Charnley was the Father of the modern hip replacement.

A parody of how I get told the history of modern-day hip replacements

Because the NHS has become (or perhaps always was) a fairly non-material, multiplicitous, and therefore intangible thing, I decided to study it through focussing on something more physical, more tactile. By looking at something more tangible it is easier to trace how these changing political landscapes are affecting everyday care rather than theorising if and how these policy changes reach the lives they're trying to change. And with hip replacements, there is a lot to feel, see, and hear to give some tangibility to healthcare system change. I listened to the chink of hammers positioning the new hip just as I listened to people's experiences of accessing entry into the theatre in the first place. I saw both the way in which blood and gore were washed off instruments and the ways people acquaint themselves with their new hip. I could smell the burning of live flesh and the vomiting some people had to experience after their operation. I felt the dedication of surgeons, nurses, and support staff, whilst also understanding the joy, frustrations, and fears of those having their body altered. It is through these everyday materialities that I observed not what the NHS was, is, or should be, but how the NHS is practiced in the everyday.

Hip replacements also have a strange parallel with the NHS; the operation is understood as "classic British post-war science, characterised by improvisation, ingenuity, long hours, and low budgets," (Reynolds and Tansey, 2007, pxxvi). Sir John Charnley, celebrated as "the Father of modern hip replacements" (Toledo-Pereyra, 2004), returned from his service as a surgeon in the war and soon started practice in the new NHS (Waugh, 1990). It wasn't long before he moved to an old tuberculosis hospital in a small place called Wrightington, where he spent the next twenty or thirty years developing and refining the techniques and materials needed to replace someone's hip. In the post-war era, it was quite common for surgeons to have their own workshops – to make their own tools, and in this case, prototype hip prostheses. It was because of this work, that Charnley is also seen as a great engineer who thought outside the box. As one surgeon described to me, "it was the kind of invention like the lightbulb, which only come about every hundred years or so" (see also Houston, 2016). As a result, Charnley is accredited with alleviating many patients of their arthritic pain, "provid[ing] millions of patients a new life due to a normally functioning hip" (Callaghan, 2016, pII). Where Britain is "The

Mecca” for healthcare services, Wrightington, a small northern town near Wigan, is known as “The Mecca” for hip replacements (Siedenstein, 2016, p265). Indeed it still is a “place of pilgrimage” for those in the orthopaedic field (BBC, 2012).

There are a many variety of great and amusing stories told about Charnley’s life which I draw on in Chapters 6 and 7. These are taken from a plethora of literature (see Waugh, 1990; Toledo-Pereyra, 2004; Anderson, Neary and Pickstone, 2007; Reynolds and Tansey, 2007; Hughes, 2016), as well as my own pilgrimage up to Wrightington to visit Paul Hughes, the curator of the John Charnley trust, and Maureen Abrahams, a scrub nurse who worked closely with Charnley for over ten years. They retold the story, also available on the BBC (2012), that Charnley’s interest in hip replacements came when a patient walked into his practice with a squeaky hip. “I could hear him before I saw him”, Charnley famously said. One surgeon had already operated with an early attempt of a hip replacement, but now the poor man’s wife felt sick every time he passed her the salt because it was squeaking so badly. It was then that Charnley realised he needed to reduce the friction in the joint to make a successful hip replacement.

Charnley’s main theory for reducing friction was to reduce the size of the ball compared to a normal hip, and increase the size of the cup, which reduced the surface area of the contact point. He started with a metal ball and stem and a cup for the socket of the joint made out of Teflon. The stem extended down into the femur (leg bone), which he glued in using a cement taken from the dental industry. This part worked well, and he’d even tested the cement by injecting it into his own leg to ensure it was safe. The Teflon cup, however, turned out to be problematic. After operating on around two hundred patients it turned out the Teflon wore down in about two years, and the patient was once again in pain. He felt heavily responsible and called all his patients back once he’d found a solution. The solution came by happenstance when a representative from Germany came knocking with a sample of High-Density Polyethylene which had been used in the mechanical looms of the textiles industry. Charnley dismissed it at first – it was a synthetic plastic used for bobbins, not bodies. But the engineer he employed, Harry Craven, insisted on testing it when Charnley was away on holiday and found great success. The stem and cup that made

Charnley's name, were first put into a patient in 1962. Its success led to the implant being produced by a local manufacturer called Thackray's in Leeds, and Charnley formed the Low Friction Society to train and regulate new surgeons with the operation.

But it wasn't just the hip prosthesis itself that had to be invented for a successful hip operation. Firstly, Craven helped Charnley with his tools, of which there were many, constant iterations of the same scalpel, saw, or bore. Secondly, Charnley had to refine his operating technique over the years, to minimise the damage to the surrounding muscles and cartilage once he had left the body to recover. Thirdly, and perhaps most impressively, Charnley also had to ensure the operative area was sterile to reduce the infection rates of his patients. Going that deep into the bone increased the risk of infection because this is where blood cells are made. This is where Charnley teamed up with Hugh Howarth, a local air conditioning manufacturer who worked primarily in the brewing industry. They worked together to produce full body suits with helmets, and "the greenhouse": an enclosure where the air was constantly renewed and kept sterile to reduce the infection rates of surgery. The technology came from the brewing industry; "we're only here because of the beer!" was a profession-specific in-joke I heard a lot in my research. Because of this technology, Charnley's infection rates fell to 0.001%, making hip replacements a safe, and effective operation.

Through the years, hip replacements have continued to get more and more reliable, and suitable for younger and fitter patients. Surgeons have experimented with different materials, including ceramic, titanium, steels, and plastics, and different length stems (see, for example, Anderson, Neary and Pickstone, 2007; Reynolds and Tansey, 2007; Harris, 2009; Knight, Aujla and Biswas, 2011). They have added in cup liners and different sized balls to decrease friction even further, and have developed a number of patented coatings which allow the metal to integrate with the bone without cement. Developments in anaesthesia, surgical techniques, and infection control procedures, have further fine-tuned total hip replacements to ensure patients have a speedier and more effective recovery. Although these experiments have not been without their mistakes (for example the introduction of metal-on-metal bearings which I discuss in Chapter 7), this has generally led to more

certain outcomes, and lower risks for patients. This means people can have hip replacements earlier in the progression of their arthritis and be more confident that it will last, or at least only need to be revised with one more operation, to keep them walking for the rest of their lives.

These developments in technology have worked in parallel with the development of a lively market in the health technology and medical devices industry (see Anderson, Neary and Pickstone, 2007). Long-gone are the local production companies such as Thackray's, and so too are the workshops where Charnley made his own cups and sterilised them in the theatre's own autoclaves. Now the companies involved in hip replacements, such as Stryker, DePuy, and Smith and Nephew, are multinational corporations which I saw sell their products in big shiny sales pitches in conference centres, and through academic exchange trips where surgeons go to view a new operating technique in the States. The devices are usually sold to theatres with a complementary instrumentation set, which again can no longer be fiddled or played with in a workshop as in Charnley's day. Rather, the National Joint Registry tracks every company and model of hip implant to ensure their data does not fall below expected standards. But despite this standardisation there is still enough variation to attract different surgeons to different hips – some companies suggest they have a more cohesive new coating, or a non-slip arch on its stem. And each surgeon tends to have their preference for the hip system they use.

The theatre space, too, has changed. When I walked back into Charnley's theatre in Wrightington with Maureen and one of Charnley's colleague's wives, Pat, who was also a nurse, there was no longer a greenhouse. Instead there was a square "downflow" air conditioner on the ceiling, maybe coming just a foot down. There were no walls, just a marking on the floor to outline the operating area where you can't stand unless you're wearing a full gown and helmet. I looked at the company printed on the air conditioning unit – Howarth Air Technologies – his company, unlike much else in this room, has survived the history. Maureen and Pat explained to me how much it had changed – there certainly didn't used to be all these computers but there was an x-ray machine on the theatre floor which has now disappeared. The biggest change though was in the theatres which had been built on the main hospital site – this new build really shocked and upset them both. Not only were the theatres built upstairs ("what happens

if there's a fire and they can't use the lift with patients who've just had an op?!"), but they were built as a so-called 'barn theatre'. This is where there are four operating tables, with four downflow air conditioners in one room, with just a curtain between the operations. "Four in one! It's a conveyer belt!" they urged – Pat's son was about to have a knee replacement there and she couldn't bear to think of it. Something about it was just wrong, they told me.

Indeed orthopaedics, and especially the routine operations of total hip and knee replacements have been at the centre of many healthcare reforms that prioritise efficiency and improving service provision. The reason I chose hip replacements in the first place wasn't because of the strange historic parallels I am illustrating here, but because they have played a major part in the more recent transformations of the NHS. Alongside other 'routine' operations such as knee and cataract surgery, hip replacements were one of the first procedures to be outsourced to Independent Treatment Centres, and much of the health services research used hip replacement outcomes to assess how competition was affecting NHS care (for example, Cooper et al., 2011). As the NHS tariff system gives providers a flat rate for each hip replacement (plus additional payment for complex cases), providers are motivated to maximise their profits from the operation by increasing efficiency. As a result, a particular way of delivering hip replacements, called "The Rapid Recovery Programme" has been developed (Gordon et al., 2011; Stambough et al., 2015; Zimmer Biomet, 2019), which attempts to get patient home as quickly as possible after surgery. As I discuss in Chapter 5, this is a programme that I became very familiar with, and in many ways it acts as a starting point to my critique of the NHS.

More recently, orthopaedics has been at the forefront of understanding how to reduce 'unwarranted variation' to reduce costs and increase quality in the NHS. The government commissioned the Carter Review (Carter, 2016), which highlighted the wide variation of prices paid for hip prostheses because surgeons seem to have their own individual, arguably unjustified, preference. As a result, the government commissioned an orthopaedic surgeon to pilot an ongoing programme called Getting it Right First Time, which is amusingly abbreviated to GIRFT (Briggs, 2015). This programme is about reducing unwarranted variation to ensure only the best materials, the best techniques, are allowed to be used. As explained in the UK Health Show in Chapter 1, the

idea is that hospitals can then buy the best implants in bulk at cheaper prices. GIRFT further intrudes on the surgical profession, by suggesting that surgeons who only do a few hip replacements per year should stop because the data suggests that the operations are of lower quality. As an orthopaedic surgeon, Tim Briggs is crossing the barrack lines. When he presented back to the British Orthopaedic Society, he joked that he was walking into a lion's den. The lines between the profession and the state are increasingly blurred by figures such as Tim Briggs. He is joined by the Medical Director of the National Joint Registry, who is in conversation with the Department of Health to regulate the profession. Despite these crisscrossed lines, it is still largely the *men*, who are leaders of the state, the medical profession, and private industry, who negotiate the regulation of both the NHS and hip replacements in the UK.

I originally chose to focus on hip replacements because they have played a central role in reforms which have introduced private sector bodies and interests into the NHS. As I have already iterated, I needed a more tangible route into the NHS so as not to reproduce the dichotomous policy narratives portrayed in the previous section and Chapter 1. I specifically chose hip replacements because in many ways they are a best-case-scenario of privatisation. Unlike care for chronic diseases, there is a discrete, more-or-less bounded episode of care. When choosing hip replacements I drew on Appadurai (1986) to think about how this makes them more easily commodifiable – as I go on to explain in Chapter 5, this case could challenge my long-held beliefs on the NHS. But in the process of research, I found that hip replacements have a lot more in common with the NHS than their recent history; they have a very similar creation story. Both the NHS and hip replacements are seen as great post-war triumphs which characterise the nation, and each have been developed over the years in iteration with one another, where the private sector has gradually been given a bigger part to play. In the next chapter I draw on a different set of literature – a set of literature from my sociological and anthropological disciplinary background. I explain how this corpus of literature has for a long time sat uncomfortably with my devotion to the NHS, and the histories and health services literature I have presented so far in this thesis.

3 | SEX, DRUGS, AND CADAVERS: THE MAKING AND UNMAKING OF THE MEDICAL PROFESSION

When I first started my PhD, I took a twenty-minute walk from the university office, around the corner from the grandiose “House” of the British Medical Association, to the Royal College of Surgeons. Though different in architectural design, both buildings have the markers of historic importance; temple-style columns, iron gates, embellishments on the borders, and façades and demeanours that seem impervious to London’s polluted and impoverished elements.

Walking through the marbled, panelled, and carpeted entrance hall of the Royal College of Surgeons, I wondered who all the statues and paintings were celebrating; most of their names were unbeknown to me. I was trying to find the entrance to the Huntarian Museum; a collection which both celebrates the work of John Hunter, a surgical pioneer, and the history and contribution of surgeons more widely in the UK. This wasn’t the first time I’d stepped into the Huntarian museum, but the initial impression still shocked me: on entrance you are faced with thousands of jars of dissected body parts preserved in formaldehyde. There is a whole inventory of flesh - human, flora, and fauna. This taxonomic collection, produced in the late eighteenth century, is seen here as the beginning of scientific surgery and anatomical knowledge of the human body.

This is the world that began to make me a little unsettled about the love I had for the NHS. Having a disciplinary background in the sociology and anthropology of medicine, I have long been aware of the strange hierarchical histories of the medical profession, and the kind of body the profession produces in their research. I have been aware that we need to think about other ways of knowing the body, which relate to other ways of practicing care. But I have always held this corpus of research separate, at arm’s length from my understandings of the big-p Politics of healthcare in the UK. In this chapter I bring this uncomfortable body of literature into the heart of this thesis. A body of literature I always knew disrupted what I believed about the NHS,

destabilising the leviathan of biomedicine which has long guided NHS practices. I suggest, however, that this literature doesn't take down the glory of the NHS on its own. It only acts as a starting point, as a set of literature I utilise in my analysis, to explain why we need to think about the Politics (and politics) of the NHS differently.

The point here is not so much to situate myself in a particular theoretical space, but to bring a series of heterogeneous literatures together which have in common a scepticism of national healthcare services. My first aim is to introduce this literature to a less familiar audience – who may themselves be more situated in the health services literature cited in Chapter 2, or in the political campaigns of Chapter 1. My second aim is to put side by side literature within the field of medical sociology and anthropology which have ontological and epistemological tensions. On the one hand, I bring in more classical sociology which centres humans and the cultural and social discourses which shape their habitual behaviour in its analysis. This literature is important here because it speaks to what are usually seen as 'big categories' of class, gender, and religion which you'll see from a quick glance at the contents page, came to be important in my research. On the other hand, I draw on a more materialist set of literature which looks to more-than-human worlds to see how bodies and health care get practiced. This literature tends to see the world as made up of networks of actors – or even assemblages - which make for a much more dynamic and fluid world than the static categories of class and gender. In putting these two important sets of literature together on a page, I hope to set the groundwork for an argument for thinking about the political issues of class and gender beyond their life as macro-placed categories.

I begin the chapter by returning to dissection, which is still in some ways seen as a "rite of passage" in medical schools (Hafferty, 1988; Prentice, 2013; Sinclair, 1997; Goodwin, Machin and Taylor, 2016). Whilst only a select few, such as the University of Cambridge (n.d) can afford to stick to full body dissection, medical students still see bodies in their parts through observing post-mortems, or dissecting in virtual reality (Prentice, 2013; Goodwin, Machin and Taylor, 2016). On the one hand learning about the body in this way allows medical students to know the body as a set of discrete organs which can be distinguished, fixed, and removed. And on the other, it acts as a form of

emotional socialisation, so students can learn how they should relate to the body. This chapter explores some of the social and anthropological literature on how medicine has developed in the Euro-American world and particularly in the UK. I then look at how the medical profession has been challenged through quantification and surveillance from the state. The creation of the NHS, as explained in the previous chapter, was just one example of the taut relations between state and profession. Finally, I draw on a set of literature which rethinks the body, and therefore what kind of care practices are needed in healthcare settings. As I explain further in Chapter 4, seeing the NHS through various different intersections of time and space, including the more historical trends of the medical profession, enable me to escape the linear Genesis narrative, which is so dominant in the campaigning world. In summary, this chapter helps me take a different route in to exploring the NHS.

The making of the medical profession

Contemporary knowledge of the human body is based on the dissection and preservation of body parts like those in the Hunarian museum. Notably, dissecting and analysing body parts in this way, enables a knowledge of the body-as-machine. To literally make the lively body into a decontextualized object of study, the parts of which each have their function to make up the whole. The history of the body-as-object has been traced to various points in British history, most of which begin well before the beginnings of the NHS. Lock and Nguyen (2010), as well as Daston and Galison (2007), focus on the Enlightenment as the moment of change. The eighteenth century was when intellectuals began to advocate for emotion to be separated from rationality, in order to find a “truth-to-nature” (Daston and Galison, 2007). Bodies of criminals or patients from charity-run hospitals were given to surgeon-taxonomists like John Hunter to dissect so that they could collect specimens and categorise them in ways which were supposed to give some truth about the body and the natural world (Sinclair, 1997; Turner, 1990). As they continued the work of drawing, painting, and mapping to understand the human machine, the drawings began to become void of a background or setting, where before bodies were situated in woodland or other environments (Lacqueur, 1992). Shapin (1998) helpfully

phrases this particular quest for truth as “the view from nowhere”, where truth cannot be tainted by human or any outside, non-human influence. Foucault suggested that this “medical gaze”, which separated mind from body began to give medical doctors the moral authority over humanity in place of the clergy who previously saved souls. In this way, medical doctors began to gain the autonomy of a profession, where their skills and knowledge were seen as specialised and deserving enough to be protected by the state (Friedson, 1970; Donaldson, 2008).

Sawday (1995), however, traces this history of the body to about a hundred years before, at the end of the reformation in the mid-seventeenth century. He documents the beginnings of The Royal Society, an important scientific body in the UK to this day. At this time prominent physicians such as William Harvey spoke out against effeminated, fanciful descriptions of the body. Where poetry had been used to describe nature, this was now “sickly-sweet” (Ibid., p237), encouraging fancy over rationality. Rather, Harvey called for a more plain but potent knowledge of the body akin to the puritanical, reformist churches and relationships with god. Sawday emphasises the masculinisation of this call for vigorous simplicity, which he argues was inflected with the experiences of war. Women such as Margaret Cavendish, who argued we need more elaborate literary descriptions to understand the liveliness of the body, were alienated from the formation of the Royal Society (see Ibid. ch8). Sawday’s account reveals how Enlightenment thinking was itself embedded with Protestant understandings of god, much like the way Weber takes us back to the Protestant work ethic in his understandings of capitalism (Weber, 2005). In Turner’s (1990) Foucauldian account, which has some similarities to Sawday’s, the Christian spirit was very much alive in the joint project of biological objectivity, and capitalism.

We can see this inflection of Christianity in modern science still further in the nineteenth century where concern for the increasingly urbanised poor took on a moral tone. The concentration of waste and poverty as a result of industrialisation maintained understandings of miasmas, where diseases such as cholera and tuberculosis were thought to spread according to a sub-population’s moral standing (Lock and Nguyen, 2010b; Stallybrass and White, 2007; Turner, 1990). John Snow’s discovery that cholera was spread by

contaminated water from the Broad Street Pump is famously held as the beginnings of a more scientifically accurate public health. But the moral understandings of disease from Christianity were also folded into such medical knowledge. As the state eventually began accepting that the spread of disease may be due to physical elements we can track through numbers, comparison, and experimentation, statistics (coming from the German etymology 'of the state') became more commonplace. Now, however, the spread of morally-inflected disease could be tracked (Turner, 1990). Bradby, (2009) equally describes how the state became more interested in tracking medical illness when they found the young male population wasn't strong enough to send to the Boer War. Medicine became a way not only to ensure the state had fitter and stronger men to fight, but also to test, measure, and compare the strength of their stock. In Chapters 6 and 7 I explore further what these Christianised and masculinised inflections come to mean for care, where surgeons become god, and data is king.

A parallel history to that of John Snow and the emergence of statistics is that of Pasteur's germ theory. Whilst of course Pasteur was not a lone actor (see a discussion of Latour, [1993] in Chapter 4), Canguilhem (1991) notes how Pasteur's germ theory made disease visible, even if you had to use a microscope to see it. Whilst this theory has and will always oscillate with ideas of imbalance in the body (such as with many chronic disease), both situations, Canguilhem argued, are polemic; there is the normal and the pathological. As Canguilhem contends, it is the pathological which makes up the normal body. Foucault and his followers take this one step further and described how populations defined as deviant through the diagnosis of disease or difference became a method of control over the rest of the population; it was in defining the mad that made the rest civilised (Foucault, 2006). In many accounts, this biopower has been extended jointly by the medical profession and the state to define more diseases, and thus create more power, more surveillance, over what it is to be 'normal' (Conrad, 1975, 1992; Rosenberg, 2002; Rabinow, 2005). Far from Friedson's (1970) classic understanding of the medical profession, where the specificities of knowledge and expertise granted them autonomy from the state, here we see that the state and the medical profession act together to administrate power.

Whilst I do not have sufficient space here to give all the versions of the making of objective knowledge in the medical profession (see Bynum and Porter [1997], Lock and Nguyen [2010b], and Turner, [1990] for a variety of these), it is worth noting that the trajectory begins well before the start of the NHS. These histories are of course multiple, and there are many different stories which fit together or split in various ways. But in choosing these particular versions of history I have highlighted a number of themes. The first is about the way in which scientific practice attempted to remove the body from its context and look upon it as a machine. The second is about the entanglement of so-called rational, scientific fact, with the epistemology of Christian ideas of the truth-from-god. Both forms of truth are inaccessible to humans, detached from the context of the living. The third is the way in which the state used these rational logics as a method of control over the general population, and the way in which the welfare state did not just grow out of an altruistic desire to look after others, but as a way of maintaining social order and having a population that was ready for war. Finally, it is worth noting, once again, how this history is dominated by men – both in Sawday’s account and in the reification of figures like Pasteur and Snow. If these themes are so integral to the making of biomedicine, then they are also integral to the makings of the NHS, which is based on biomedical knowledge. In the chapters to come, I therefore draw on some of this literature, and look to the ways in which the state, Christianity, masculinity, and the body-as-object are reflected in the NHS.

Maintaining the medical profession

In order to maintain this objective view of the body, to do that Enlightenment thing of separating emotions from the facts at hand, medical education has the job of socialising people in particular ways. Much unlike the campaigners’ love and attachment to the NHS, it has long been thought that clinicians must be able to master the art of “detached concern” (Lief and Fox, 1963; Underman and Hirshfield, 2016), or “affective neutrality” (Smith and Kleinman, 1989). Only through mastering this emotional control are medics supposed to be able to gain the rational distance needed for astute clinical judgement, whilst still maintaining some level of pastoral care for the patient. Additionally, it is argued,

detached concern allows medics to perform intimate acts on bodies which would otherwise be regarded as extreme taboos, and to be able to protect their own sanity when working in a profession with much potential distress (Lief and Fox, 1963; Hafferty, 1988; Prentice, 2013).

Dissection and anatomy lessons have historically been seen as a crucial part of this emotional socialisation (Smith and Kleinman, 1989; Sinclair, 1997; Prentice, 2013; Goodwin, Machin and Taylor, 2016). Smith and Kleinman, (1989) describe how dissection enables medical students to separate the body from the person – to make the body impersonable; a heart becomes just a blood pump. Nowadays full-body dissection is a rare thing and only really still practiced at places like the University of Cambridge (n.d) due to cost and availability of bodies. In their place, there are attempts to teach similar lessons through post-mortem examinations and virtual reality (Prentice, 2013; Goodwin, Machin and Taylor, 2016). Prentice (2013) utilises the arguments of Mol (2002) and Knorr Cetina (2000) to extend this argument in regards to surgical training, suggesting we need to take the embodiment of surgeons and the social constructivism of knowledge through practice seriously. Where Bosk (1979) quoted a surgeon who said “surgery is a body contact sport”, Prentice wants to quite literally look at how the surgeon’s body, hands, and ways of knowing, are produced. She suggests that practicing in “taboo” situations with patient-bodies and builders’ tools, enables medics to learn how to activate or de-activate the patients’ personhood depending on the situation. To objectify the body, Prentice argues, is a necessary and important aspect of surgical training, allowing the surgeon to focus on the body as mushroom-like or pasta-like; an object to be investigated and fixed. Integral to this argument is the idea that detachment is not a state of being completely disassociated with something, but rather a specific form of distanced and controlled attachment. Detachment requires work and constant practices to maintain the appropriate level of distance (Candea, 2010).

Scholars over the last fifty years have continued to refer to this emotional socialisation as the embodiment of a “medical habitus”. Whether implicitly or explicitly, these scholars are referring to Bourdieu’s notion that our everyday practices are both constructed and constructive of our environment. We come to embody our social and cultural experiences, as our practices come to shape

our habitat (Bourdieu, 1977; Jenkins, 1996). Furthermore, this habitus is constituted by a number of tastes, or distinctions, which come to help us fit in (or not) with various cultural classifications. Bourdieu reduces 'high' culture to just one of many 'tastes' in competition with each other. Individuals then compete for various forms of social, cultural, symbolic, and economic forms of capital to fit in with particular social groups, or fields (Jenkins, 1996; Bourdieu, 2010). As everyone is so embroiled in the co-production of these various forms of capital, social, cultural, and economic class distinctions get reproduced sometimes to violent effect (Bourdieu, 1973; Jenkins, 1996).

The influence of cultural and social capital is especially important for our understanding of medical education as we go beyond the careful dissection of the cadaver, to what scholars have called the "hidden curriculum"; the more implicit, informal education received through social experience (Becker, Geer, Hughes, and Strauss, 1961; Hafferty and O'Donnell, Joseph, 2014; Michalec and Hafferty, 2013; Sinclair, 1997) . Despite attempts to change the culture of medical school, studies continue to characterise the social life of medical students as classed, where students form insider-outsider relationships through the use of gallows humour, drinking games, and shared knowledge (Sinclair, 1997; Jaye, Egan and Parker, 2006; Jaye, Egan and Smith-Han, 2010; Michalec, 2011; Michalec and Hafferty, 2013). These boundaried relationships have been documented as contributing to classed preferences for patients, defined as "good or rubbish" (Jeffery, 1979), or more recently "worthy or unworthy" patients; where patients who are young and educated like medical students themselves are preferred to drug addicts, the elderly, or the non-compliant (Higashi, Tillack, Steinman, et al., 2013).

Furthermore, the "hidden curriculum" has often been described as a hyper-masculinised environment, where social lives are heavily focused on "co-operative competition" through body-contact sports, sexual exploits, and drinking (Becker *et al.*, 1961; Sinclair, 1997). Sinclair's dated stories explain how medics joked that becoming a doctor was about "shag[ing] nurses up the arse" and women were pressured to eat bananas from medical students' groins on stage (Sinclair, 1997, p118, 120). Equally, he described drinking games which involved the communal dipping of penises in a pint before a loser had to drink it (Sinclair, 1997 p96-133). These stories of overt sexism, however, are

no longer reported very frequently in the academic literature. Rather, efforts have been made over the years to encourage medics to use empathy to help them understand patients (Halpern, 2001; Underman and Hirshfield, 2016), and new styles of education, such as “problem based learning” have been introduced (Wood, 2003). Nevertheless, research still suggests that medical school promotes emotional detachment, aggression, antipathy for weakness, and fierce competitiveness (Jaye, Egan and Parker, 2006). Despite rising numbers of female students, the specialities within medicine remain highly gendered, where surgery requires the strength of a man, and GPs require the compassion of a woman (Lempp and Seale, 2006). Of course, just because there are more women, doesn’t mean these women don’t then just participate in a masculine way. According to a number of sources, gender is still a prominent issue in medical school and the medical profession (Arnold-Forster, 2019; Jaye et al., 2006; Lempp and Seale, 2006; Murphy, 2014).

However, beyond the preference for worthy or unworthy patients, there has been little research into how this hidden curriculum actually comes to affect the day-to-day care that is given in hospitals (Jeffery, 1979; Higashi et al., 2013). Research on medical schools is rather more speculative in how they suppose such a competitive environment might affect care (Underman and Hirshfield, 2016), and the need for medical staff to retain some form of detached concern is rarely questioned. Prentice (2013) defends the need for objectivity, whilst Sinclair (1997) backtracks in his conclusion, suggesting that “No one would want, I imagine, to be operated on by a surgeon who couldn’t distance himself from his patients’ experience” (p321-322). There is one notable exception to this trend from the historical literature, where Brown and his colleagues suggest that the need for surgeons to repress their emotions is not only problematic, but is only a more recent development in the medical profession. They argue that the narrative of harsh barber (or even butcher) surgeons is misinterpreted, and that a focus on sensitivity, of being highly attuned towards others’ emotions, was more prominent amongst pre-anaesthetic surgeons in the early nineteenth century (Arnold-Forster, 2017; Brown, 2015, 2017). Whilst their team are at present working with the Royal College of Surgeons to engage professionals with their emotions, there is still little research looking at how continuing emotional socialisation affects the everyday practices of patient care. In Chapter 6, in particular, I argue that this hidden curriculum and medical

habitus is still relevant in a more material, more-than-human context, and problematise the assumption that detached concern is necessary for the medical profession.

Unmaking through quantification

In the beginning, so the story goes, the NHS had little data to enable it to understand either the need of the population or the best ways to treat disease. Indeed the lack of centrally collected data and understanding of the population in 1948 led to the government having to put a lot of extra, unanticipated, resources into the NHS to deal with the backlog of illness that people had coped with before the prospect of free healthcare (Gorsky, 2008; MacMillan, 2008). Some scholars place the beginnings of a more quantified NHS in the sixties and seventies, where several administrative changes led to a complex bureaucratic organisation concerned with geographical “unwarranted variation” known as a post-code lottery (Gorsky, 2008; MacMillan, 2008). Gorsky (2008) illustrates how this movement already started to shift power from clinicians’ practice to state administrators. A more dominant narrative suggests that the technocratic state of measuring the quality and efficiency of services only really began to take off in the nineties (Pollitt, 1993; O’Connor and Neumann, 2006; Gorsky, 2008). The New Labour government not only linked spending budgets to an analysis of population needs, but also brought about Payment-by-Results systems whereby clinical outcomes were measured in order for services to recuperate payment from the state (O’Connor and Neumann, 2006; Gorsky, 2008).

The development of what has been called evidence-based medicine has been key to ensuring systems of efficiency and payment by results. Medical protocols began to get developed which constrained clinical action, and the government set up institutions, frameworks, and research centres to establish guidelines on best practices across the NHS (Timmermans and Oh, 2010; Timmermans and Kolker, 2016; NICE, 2018). These research centres focused on randomized controlled trials as a gold standard and medical students are now taught an ‘evidence triangle’ which is supposed to deliver varying degrees of objective

knowledge (McKee *et al.*, 1999; Cartwright, 2007). The idea behind this infrastructure was for it to cut through the local knowledge of clinicians and establish guidelines both for diagnosis and treatment of disease (Timmermans and Berg, 2003; Greenhalgh, Howick and Maskrey, 2014). As a result there has been a backlash from the medical profession, who at times feel that it gets in the way of their clinical judgement. This clinical judgement, is argued to be an important part of a medics' expertise, as it forms out of experience with different diagnoses and treatments (Sackett *et al.*, 1996; Greenhalgh, Howick and Maskrey, 2014; Timmermans and Kolker, 2016). The way in which onerous paperwork draws attention away from patients, and the rigidity evidence-based medicine brings to medical practice, have also been well documented (Greenhalgh, Howick and Maskrey, 2014; Matthews-King, 2018).

In order to monitor all this data, Strathern (2000) and her contributors suggest there was a rise in what they theorised as "audit culture", where networks of paperwork, data, and monitoring practices brought greater surveillance into everyday life. They illustrate how this data is enacted, and along with scholars in global health, illustrate how data shapes everyday practices (Adams, 2016). Porter (1995) specifically draws attention to the way in which quantification brings distance from everyday life in its promise to provide universal answers that act across time and space. Crucially, Strathern (2002), shows that this data doesn't move in a linear fashion from policy down to practice. Rather, data forms networks, where data travels and intersects with the people and machines which first collect representations of practices in numerical form, with the writing of policies, and the practices it is meant to inform. Data doesn't just stay in Excel spreadsheets or R databases; data is lively and shapes the world it is said to represent (Lupton, 2018; Lynch and Farrington, 2018).

Again, there are many versions of this story of quantification. For Porter (1995), the quantification or "trust in numbers" emerged from the intersection of engineering and the state during Industrialisation. The benefits and therefore dominance of quantification was linked to capitalistic economics and cost-benefit analysis. "Quantification is a technology of distance" (Ibid., p ix), which he argued was more prevalent in the public sphere where capital was more necessary, than the private sphere. In Porter's turn of events, when quantification began gaining dominance in all areas of the state's interest,

medics initially wanted to protect their craft. They saw medical work as something personal and not simply universalisable to other medics and other patients. He suggests, however, that medics started to come to terms with statistics in the fifties with the rise of the pharmaceutical industry, which seems to contradict the classic story of Pasteur, Snow, and the Broad Street pump. But like all of the versions of medical quantification I have illustrated so far, Porter misses the contribution that Florence Nightingale made to medical statistics during and after the Crimean War (McDonald, 2001; McDonald, 2014). Rather, the story of objective, quantified, knowledge in medicine is confined largely to male figures from either medical or political professions.

More recently, the story suggests that data has seeped beyond administrative workplaces further and further into our personal lives. Where Porter (1995) suggests quantification has historically been situated in the public as opposed to the private realm, more recently scholars have noted the increasing power of the quantified self. Firstly data is now more available to patients on websites like NHS Choices, enabling them to become consumers of healthcare (Klein, 1989; Mold, 2011). This means healthcare both increasingly becomes about simplified ratings that could be understood by the general public, but it also creates a market where patients have to be directly involved in the administrative task of resource allocation. Secondly, there has been an expanse of data about the body. Where people are constantly collecting and analysing data about their calorie intake, blood pressure levels, or sleep patterns (Lupton, 2016a, 2016b; Lynch and Farrington, 2018). This has further put the administrative role of self-managed care onto individuals in the private sphere, asking them to do the work of doctors. Whilst I do not address the concepts of data doubles and personal quantification in this thesis, it is worth noting the ways in which quantification has been theorised here. In many ways, the sociological and anthropological literature has moved beyond critiquing quantification in all its forms – the popular thing to do now is look at how the equally popular new technologies have increased the pressures of quantification.

In this thesis I will return to ideas of quantification within, but also beyond the body. Once again there is concern that these trends of quantification give some threat to the medical profession. Just as administrative powers press down on

the medical profession with frameworks and protocols, patients are now seen to be taking power from below through self-monitoring and building more knowledge of their bodies (Klein, 1989, 2013). Debates about how medical professionals should relate with these more quantified logics is ongoing (Sackett *et al.*, 1996; Greenhalgh, Howick and Maskrey, 2014; Lupton, 2016b; Timmermans and Kolker, 2016; Lynch and Farrington, 2018). But one element of agreement between these stories is that quantification has had a growing role in the NHS over the years. A story or trajectory is made through this research, which suggests that the quantification of health has emerged in the last century or so, and has even been part of the neoliberalisation of the NHS. In Chapter 7, I problematise this notion, suggesting that the ways in which people and things are related to each other through quantification has long been a problem in the NHS.

Unmaking through care

There is a large body of critical literature which disturbs medical conceptualisations of the body and thus the implications for how we should care for it. The critique perhaps begins by illustrating that in ignoring the social contexts of knowledge, the rationalised version of the body constructed by the biomedical world has taken on many problematic aspects of the social world. For example, the rational view of the body has been gendered – where romantic relationships are built between the cellular sperm and egg, vaginas are drawn with or without a clitoris, or where torsos are envisioned without mammary glands (Martin, 1991; Lacqueur, 1992; BBC Newsbeat, 2019; Dean, 2019). Bodies with heart disease have also been racialised in ways that hide class inequalities in order to maintain an essentialist biological view of the body (Shim, 2014). These attempts to disconnect the body from its milieu, to give mechanical, functional explanations of health and illness have thus resulted in implicit assumptions about what a good or healthy body looks like; something I draw on in Chapter 5 when looking at model patients with trademark hips.

This is not to say that rational ideas of the body could exist if only we uncovered the biases of biomedical depictions. The very idea that patients are skin-bound,

self-determined, individuals has been widely critiqued in the literature (Blackman, 2010; Hacking, 2006; Lambert and McDonald, 2009; Latour, 2004; Lock 2002, 2013; Lock and Nguyen, 2010; Lock and Farquhar, 2007; Mol, 2002; Mol and Law, 2004). Rather, skin-bound bodies are permeable; they take on, or embody, the physical and social world they inhabit, whilst at the same time the body feeds back into the world. The environment does not only get inside the body through what we eat, breath, or feel, but our bodies also come to form the environment, the social, or other things and people around us. This has been theorised as the body having a local biology (Lock and Nguyen, 2010), as intersectional categories coming to make up people (Hacking, 2006), or as part of a network or assemblage of actors (Latour, 2004). In this thesis I draw mainly on the idea of bodies as part(s) of an assemblage (Deleuze and Guattari, 1987; DeLanda, 2006), with the idea that the seemingly inanimate hip implants and animate bodies can come up to make lively cyborg bodies and cyborg worlds (Haraway, 1987).

This way of viewing the body relies on two ontological shifts. The first is drawn from Deleuze and Guattari's conception of assemblages, and Haraway's notion of cyborg bodies. Hybrids of humans and machines, such as cyborg patients with metal, plastic, or ceramic hips, enable me to cross the politicised boundaries between humans/non-humans, subjects/objects, and public/private. It enables me to see more-than-human worlds (Puig de la Bellacasa, 2017). Rather, as Tsing (2015) and Puig de la Bellacasa (2017) suggest, everything is all entangled as the same stuff. Everything from the earth goes back to the earth. Seeing the body-world as an assemblage, where actors move in and out of (and not just in between) human and non-human bodies, enables me to see how politics gets inside the body. As I explain further through my methodology in the next chapter, seeing the body as an assemblage is also important for flattening the world, to see politics as part of everyday practice rather than as coming from a policy sphere above as the traditional health services literature suggests. The actors which come to make up bodies are in relation with many other actors, nodes, or vectors which traverse the boundaries of the bodies, analytical scales, and the NHS.

The second ontological shift is drawn from Mol's (2002) work arguing that so-called objective knowledges of biomedicine are multiple. Using the example of

atherosclerosis, Mol illustrates how something as scientifically stamped and proven as an established medical condition is multiple within the field. A physician might practice atherosclerosis as something to be examined because the patient reports pain in the calf. It can be examined through assessing a patient's lifestyle choices, and medical history. To a vascular surgeon, atherosclerosis is about the assessment of the arteries with his hands. And to the pathologist assessing the cause of death, atherosclerosis is the cross-section of the lower leg where fatty deposits can be seen in the lumen. Through this example, Mol illustrates that even biomedicine does not create a single, objective, and standardised knowledge, but multiple truths which can be held up together – as they often are in the consulting room. The assemblages which come to make up the body are therefore never static in time or space, but produce multiple versions which can be cut, and examined in different ways. Nonetheless these multiple versions can co-exist whilst retaining some sense of stability in the everyday practices of the hospital.

Importantly, these ways of viewing the body-world come with different ways of envisioning what good healthcare looks like. Mol (2008a) suggests there is more than just the doctor and the patient in the room when decisions are made; Talcott Parsons' (1975) assumption that we are only looking at the patient and physician, and perhaps a desk in between, has just blinded us to them. A patient and their doctor never actually make that kind of decision on their own. The patient has their family and friends, the internet, what they've seen on the television or read in magazines, and, even supermarket shelves (as I explain in Chapter 7) which come to relate to their selves. All the other people and things collectively shape their views, and their decisions. So too is the doctor influenced and surrounded by others - from the pathology lab, the radiologists, their own medical school professors, and the academic papers or medical protocols they read which influence their everyday speech, thought processes, and decisions. Viewed from what Mol calls the logic of care, what happens in the consulting room is a collaborative entanglement of practices which result in a moment of decision amongst many – care is a collective process.

A group of scholars across Europe have made it their project to bring attention to these multiple practices of care (Pols, 2006; Mol, 2008; Mol, Moser and Pols, 2010; Moser, 2011; Wallenburg et al., 2013; Puig de la Bellacasa, 2017;

Driessen, 2018; Krause and Boldt, 2018). Mols, Moser, and Pols (2010) highlight that for a long time the concept of care has been side-lined to nursing journals and has been absent in much of the health services literature. This is largely entangled in the fact that, unlike biomedical knowledge, care has been seen as women's work – it is highly gendered due to its association with motherhood. Even in the NHS today there is a “values-based recruitment” drive to hire people who are seen as inherently compassionate and caring, rather than viewing it as something that can be taught (Health Education England, 2019). Care is therefore seen as something innate or natural to the (usually female) body which in turn makes it seen as unskilled (and unwaged) labour – it is not seen as something that is honed over hours or years of practice.

Therefore, these scholars set out to look at the *practices* of care, and soon illustrate that care is something that is refined gradually through trial and error – no one knows exactly, pre-determinedly, how to do care. “Good care”, Mol, Moser, and Pols (2010, p14) suggest, is “persistent tinkering in a world full of complex ambivalence and shifting tensions”. It is when people constantly and persistently “strive to attend to what should not have been possible” (Lopez, Callen, Tirado, and Domenech, 2010, p82). Rather than maintain standards of biomedical knowledge, these scholars suggest we must understand and act with the constantly shifting relations between the bodies and the world. Lopez et al. (2010), for example, use the example of a home telecare service where people living independently can alert the service if they fall or arrange to be checked in on over the phone twice a day. She illustrates how the service operators tinker with the technology and the codes the system prescribes for them to use with different types of call. They add their own information in electronic notes and paper post-it notes. They learn to adapt to the technology as well as making it adapt to the person's needs. In evading protocol, and constantly tinkering, the operators care for the service users through everyday practice. Care is not therefore a “wrapping” – they are not interested in what care is, but how it is done through everyday practices.

As care is seen as operating through everyday practices, these scholars are interested in the relations between and assemblages of human and non-human actors. Care emerges not from individuals who rationalise their own way through life or have some innate power to care, but from networks of actors

who form choreographies, where different parts must react to others to fall into place (Cussins, 1996; Law and Lien, 2012; Puig de la Bellacasa, 2017). For example, Winance (2010) illustrates how the technologies become part of the assemblage of care when people need a new wheelchair. It is certainly not about a patient just choosing one that's right for them. Winance describes the toing and froing, the sorting but then the tinkering with different chairs to see how both chair and patient suit one another – can the bars be brought in closer, or the footrest adapted? The person pushing the chair must also be acknowledged in the choreography – can the handles be made high enough, is it good for their back? Sometimes the chair is stubborn and can't be manipulated in the way we often expect to be able to do with technologies – technologies act back. The care is in working together – the chair, the carer, the person in the chair, and the occupational therapist in the shop – to find a fit that's good enough. Crucially for Winance, this allows us to come away from the dichotomous argument formed by Parsons (1975) and Kleinman (1988) of patients being either dependent subjects without agency or autonomous individuals who do not need to be cared for. Care, as illustrated throughout Mol, Moser, and Pol's (2010) volume, is something that gets done across a number of actors and if done well, can emerge in particular times and spaces.

Through the collective storytelling of these scholars it emerges that care is not just one thing. And care is not in and of itself aligned with morally good or bad actions. We find this most starkly in descriptions of care work which is aimed at killing animals who were in foot and mouth infection zones (Law, 2010). Here, practices of care were present, but it doesn't mean the outcome was good for the cows, farmers, or any individual in the situation. It was caring of the other farms in the area and of the general population in the UK. Indeed Mol (2008) specifically draws our attention to the differences of caring for a collective or an individual. When caring for a collective, the people in it are often transformed into statistics – good and bad ones – and everyday care is focused in a utilitarian way – for example exercise campaigns. But the odd person in this statistical whole is an insulin-dependent diabetic, and has to be sure they don't exercise too hard in case they get a hypoglycaemic attack. The campaign advertisements aren't for them. Different care practices are not always aligned, but can conflict, and cause tensions across themselves. In the rest of this thesis I work with this idea of seeing care as a practice. Whilst I bring values back into

the mix through the use of more traditional sociological thinking in the chapters to come, it is by focusing on the body and care as being constituted by practices that enables me to take a different route in to understanding the NHS.

Coming back to the NHS

In this chapter I have drawn on a wealth of literature from my disciplinary background in the sociology and anthropology of medicine which has long felt unsettled next to my devotion to the NHS. In doing so I have explicitly decided to move away from the plethora of health services literature which embodies the debates between public and private healthcare. Instead I have drawn on ongoing debates about the power and values of patients, the medical profession, and the state, in order to explore how care, treatment, and medicines get practiced on an everyday basis. In doing so I have presented another set of heterogeneous stories about the NHS which differ from the original Genesis story I presented in the previous chapter. What they have in common, is that they bring more pessimism to the way in which Western medicine has developed and seem discordant with the heroism that I have shown is given to the NHS in previous chapters.

Yet many people in the field of medical anthropology or sociology, who have had an education based on many of the texts I have cited in this chapter, still give an awkward laugh every time I tell them that I called this thesis “How I fell out of love with the NHS”. The NHS is still seen as something that people in the UK shouldn’t critique as an institution, concept, or practice. Rather, scholars critique the practices *within* the NHS in reference to biomedicine rather than the politics of the institution itself. They tend to comment on the parts without commenting on the whole. This is perhaps because the literature I have presented here doesn’t tend to work with the big-p Political debates of the time – specifically the debate around what the NHS should be or do in the coming years. Furthermore, there is often a limit to the politics, with a small-p, that is done within this body of literature. Whilst scholars do often point to the classed and gendered nature of various professions, they also tend to maintain them by studying them within their boundaries. With a few exceptions (for example Mol

[2002]), surgeons, nurses, or carers get studied in different times, in different places, with different research papers. The intersections of the NHS get cut in line with these hierarchical formations. Whilst this corpus of literature has therefore been useful in disrupting the ideas around the NHS presented in the previous two chapters, it is also limited in its scope for analysing the NHS at the same time as the everyday delivery of care.

It is also important to note that I place together some quite dissonant literatures here – including the more human-focused sociology of medicine which looks to medical habitus’ and professionalisation, with the more material-focused literature on data, assemblages, and care. The work of this thesis is also to bring these together – to take on the importance of professional identities, masculinised forms of knowledge, and classed decision making, with everyday practices, data networks, and technological relations.

What follows is not so much guided by a research question but is a quest to reconcile the texts I cited in this chapter, with the dedication I, and so many others in and beyond the UK, have for the NHS. It is a quest to reconcile my academic leanings and understandings of medicine, with the Political and political happenings in the NHS described in the introduction to this thesis. This was an introduction in which I’m sure many of my colleagues would side with the campaigners, as I did at the beginning of this research journey. But having decided the demand for equality is what made me care so much about the NHS, the literature I have presented here may start to undo some of the assumptions that enacting equality is what the NHS does. This is why this thesis looks to how equality and inequality get practiced through healthcare in the UK. Before going on in Chapter 5 to introduce my data in the hospital, however, I need to do some work to think about how my activism, and the problematic literature I have presented on the NHS in this chapter, can be reconciled theoretically and methodologically. In the next chapter I explain how this literature helped me build a different kind of activism, and how this allows me to intersect, or look at the NHS differently.

4 | PUTTING DOWN THE PLACARDS: A METHODOLOGY

Coming to this research as a campaigner who marched to save the NHS, I had a lot of work to do before I could begin. Practically it was a process of laying down the placards and putting the pin badges and leaflets into a folder named “research data”. It was about going along to marches with a notepad full of field notes and listening intently to arguments around Keynesian economics, privatisation, and motivations of healthcare workers, rather than making them. I stopped using books called *NHS Plc* and *The Plot Against the NHS* as artillery,⁶ and started using them as ethnographic objects. Alongside the campaign leaflets of vultures taking Lego bricks out of an NHS Jenga tower, these books had provided me with ammo for years - to show people that the public NHS *really* was being privatised. But, as illustrated in Chapter 1, this has always been just one way in which the NHS is known.

A lot of people seem to think they know what the NHS is. To some the NHS is a publicly funded healthcare system. To others it is a tax burden. A bureaucratic nightmare. Or a pillar of our nation. It’s a high-tech showcase of world-class healthcare. And it’s an old and buckling institution struggling to keep up with the speed of technological advance. It’s a beacon of equality, and a free ride. It’s a socialist silo, and a potential, largely untapped market for investors. Whilst seemingly disparate, all of these definitions come to have real effect in the world, and so in this sense all are true. The problematic similarity between all of these definitions, however, is that they attempt to define, delineate, or hold still the NHS. They attempt to give a static and authoritative notion of what the NHS *is* as a contained object in and of itself.

In a situation where everyone seems so certain about what the NHS *is*, I want to get to know the NHS differently. Rather than try to define what the NHS is or should be I look both at what the NHS *does* and how the NHS *gets* done. This kind of ethnography, developed largely by Annemarie Mol, John Law and others, is thought to be especially useful when essentialist ideas of a thing

⁶ See Chapter 1, and for full references: Pollock (2004); Leys and Player (2011)

dominate (Mol, 2002; Law, 2004; Mol and Law, 2004; Law and Lien, 2012; Singleton and Law, 2013; Law and Singleton, 2015). Labelled 'empirical ontology', these scholars aim to follow what they find actors do, rather than attempt to generalise things in their existence outside of its relations with others; to define an authentic but inaccessible NHS in the middle of a circle of spectator-theorists (Mol, 2002; Law and Lien, 2012). Rather, empirical ontology helps us understand the complexity of the NHS as it relates with other people and things, rather than simplify and silo it down into a campaign slogan.

In this chapter I follow this line of thinking. I collapse theory and methodology to reframe the NHS, to work through my assumptions about what the NHS even is as an entity. Part I of this chapter is about that journey; a journey I took in order to move away from the dichotomised debates around saving or transforming the NHS, to come at it from a different tack. Part II is where I place these practices in my specific field sites. There I explain my ethnographic and ethical practices in more detail and how I dealt with the many conundrums that come with those practices. Crucially, in relocating current arguments from NHS activists as I did in Chapter 1, I do not want to lose my identity as an activist. I also want to continue the argument from the previous chapter, and ensure values and politics are present within the ontological shift towards doings, materials, and assemblages. Here, I hope to develop a manifesto for a different kind of activism that requires ethnographic practices to shift power. This way I hope to both retain my activist scholarship, and find alternative ways of understanding the NHS.

Part I: Re-thinking the NHS

In this first part I explain how I use a number of methodological shifts to enable me to see the NHS in a different light, away from the monolithic, singular entity seen by campaigners, NHS officials, or the health services research literature. Rather than look at the NHS in a top-down or even a bottom-up fashion, I see it sprawled out on a page so I can see the connections between the technician cleaning blood off instruments in the sterilisation unit and the surgeon presenting their newest paper in a Westminster conference hall. I draw on

Deleuze and Guattari (1987), DeLanda, (2006), Haraway, (1987), and Latour (2005), to understand the connections between the manufacturers of the first hip implant and the various devices patients are now given to aid them in putting on their shoes and socks after surgery. This process, which starts by questioning the boundaries of the NHS, ends by suggesting we use a different form of knowledge to understand it – to use the ontological shift of Actor Network Theory and understand not what the NHS is, but how it is done, in multiple ways, through the everyday practices of nurses, physios, surgeons, and scalpels. Here I draw on a wealth of literature, including Law and Singleton (2015), Mol (2002), Mol, Moser, and Pols (2010), Singleton and Law (2013), and Law and Lien (2010) to understand how hip implants, patients, and of course myself as a researcher meddle in the everyday practices I observed. Whilst this is not the only way to understand the NHS, I hope it brings me away from the oppositional and steadfast debates currently dominating both academic and popular conversations in the UK.

The fluid boundaries of the NHS

As I explained in the previous chapter, “doctoring is not something only doctors do” (Mol, 2008). The traditional depiction in the Parsons-inspired literature is of a patient and a medical practitioner in a room, possibly with a desk between them. But the scholarly obsession of working out the power dynamics between these two caricatures has missed the other people and things in the room; the radiologists and phlebotomists informing the doctor, and the family and YouTube videos in the patient’s mind. Not forgetting the branch of the tree that flung back and knocked the patient to the ground, sending her to the doctors’ surgery to examine her hip in the first place. By acknowledging the agency of these different actors in making up (not just influencing) that decision of whether a patient goes ahead with a hip replacement, we begin to see things moving in the world through assemblages (Deleuze and Guattari, 1987; DeLanda, 2006), where each actor is constantly in relation with others. This is to say that each actor both constitutes, and is constituted by others – each actor is also an “actor-world” made up of others around them (Callon, 1998; Law and Mol, 2008).

When thinking about all these actors in the room, Strathern (1996) asks us to think about where we cut the network, at what point do we stop thinking about one of these actors as part of 'The NHS', and analysing them as the same concept? Is thinking about the YouTube videos as part of the NHS a bit too far or is it sometimes useful to think of the video decision-aids as an integral part of the healthcare system in the UK? Strathern suggests ownership is often a strong cause for object-boundaries. She uses the example of the identification of Hepatitis C and the resulting testing kit which was then patented because of the use of the unique genetic sequence of the Hep-C virus. Despite the fact that many scientists contributed to the identification of the Hep-C virus (more than forty scholars were cited on the paper), only six of them were part of the patent for the testing kit. The network was cut to protect ownership for the six scholars on the paper.

There is nothing to say that the network had to get cut there, at those six scholars, just like there is nothing to say that the NHS has to get cut at the doors of the hospital. Strathern⁷ also emphasises that a lot of it depends on who does the cutting. In the NHS this is becoming ever more apparent because of the blurring boundaries of ownership that come with political change. For the campaigners the NHS was always about those publicly owned organisations, where doctors and nurses get paid according to national pay scales, and the NHS logo is proudly displayed at their doors. But for a time, government ministers made the logo more open for use, so private companies contracted in to the NHS were encouraged to use it to show their solidarity, to represent themselves as providers of national healthcare, free at the point of use (Wynne Jones, 2013; Kmietowicz, 2016). Whilst the boundary-work of the NHS logo has shifted once again (NHS England, n.d), cranes helping to build my local hospital can still sport the NHS logo. Here I found out that those labourers are proud to be building an NHS hospital - perhaps these are also NHS cranes, tools, and builders. Whilst these changes might have made the boundaries of the NHS more visibly and overtly blurred, I suggest that that is all it's done – shone a light beam on the smoke. The boundaries are fluid – they are constantly shifting depending on who or what is included in the assemblage. The campaigners are

⁷ Strathern is building on an older iteration of the argument, where there was a concern anthropologists were objectifying cultures against their relations, “pre- and post-contact”, with colonial nations. For example see Mosko (2002). Also see Strathern (2004).

constantly fighting to keep the boundary in place between public and private. But these boundaries always leak, the private world is always seeping into the NHS through latex gloves and the manufacturers that make the scrubs. As I go on to show in Chapters 6 and 7, Charnley engaged with private industry in the sixties and seventies in similar ways that surgeons do now.

In this research I've chosen to accept these fluid and leaky boundaries and play along with them. Rather than attempt to maintain the public-private boundary that campaigners so desperately try to uphold, I want to understand how these conceptually alienated actors actually contribute to the everyday delivery of care – and observe what they carry with them from other or extended assemblages. What does a surgeon carry with him into the theatre from the conference halls and dinners with company reps? Do the steaks, caviar, and cups of tea have a role to play? What do the walking frames, crutches, and hip implants contribute from their histories, manufacturing processes, or appearances in brochures? By playing with the fluid boundaries of the NHS I can understand the NHS as more than just a siloed, much loved, beacon of equality. Rather than cut the network at this well-practiced boundary, I cut it in various different ways. I follow the connections that seem interesting, contradictory, or help me grapple with my love for the NHS, and I cut the network when I see them as less interesting, less troublesome, or simply too far out of reach for this current project to follow (in another project I would love to follow the manufacturing process of hip implants back to China, for example). To be clear here, this doesn't mean that I only follow the fanciful or the spectacular. Part of my training as an ethnographer at home⁸ is also to be intrigued by the everyday – the cups of tea as well as the caviar. To care about the banal, the commonplace, that is most people's lives. As Haraway (2010) suggests, I stay with the trouble. But sometimes the things I find most troubling of all, are the banal, everyday kind of things.

⁸ See Alvesson (2009) on "at-home ethnography".

Flattening the NHS

Some important political work can be done through imagining the NHS as an assemblage of actors, and a large part of this is its work of flattening the world. In health services research, the NHS is usually seen as a strictly hierarchical structure, both in terms of the movement of policy, and the power amongst various medical professionals. The hierarchy of command amongst staff from the lower to the more qualified is clearly denoted by the “Band” payment system, from Band One as a domestic cleaner, to Band Nine as a highly qualified management-level nurse. Whilst the “Band” system covers physios, administrative, technical, and estate-management roles, a higher-up scale is provided for doctors, surgeons, and consultants, where the years in education and practice also place them on a hierarchical scale. In this way, staff are clearly aligned in terms of decision-making power and seniority of expertise.

Even more ingrained though, is the hierarchy between the macro, meso, and micro policies which come to shape care. As highlighted in Chapter 1, health services researchers tend to denote macro policies as being the overarching political and economic decisions made about the NHS coming from government, healthcare ministers, and governing bodies such as NHS England. Meso level policies are those to do with the bureaucracy of contracting providers, auditing care, and creating protocols for patients. And studying the micro comes not to be about policy at all, but about studying how these policies affect healthcare staff and patients in everyday care. These micro-actors come only to have power in how they react to these policies but are otherwise seen as passive in the policy-making process. Again, it is worth emphasising here that even when policies aim to decentralise, defer power down to councils, hospitals, and physicians, or build from below, structures are still seen as separated and active in this macro, meso, and micro fashion; the hierarchy is maintained⁹.

⁹ See the images overleaf and (Caldwell and Mays, 2012; Fulop, Allen, Clarke, and Black, 2002, p12; Greenhalgh et al., 2018; Greenhalgh and Stones, 2010; Mohan, 1996; Richter and Dragano, 2018; Mosley and Lockwood, 2018; Noncommunicable Diseases and Mental Health: WHO, 2002) for various iterations. Macro-meso-micro can be seen as different decision-making levels, or spheres of influence. It can be seen as governmental-society-individual, global-national-local, or as different levels of data. The similarity with all of these scales is that there is a graduating differential in where power is located.



From *Noncommunicable Diseases and Mental Health*: WHO, 2002



From Mosley and Lockwood (2018)

Viewing all the actors both within and outside of this imagined hierarchy as an assemblage begins to change the relations between actors by creating a new imaginary. Deleuze and Guattari (1987) would suggest that the way I just described the NHS is more of a tree-like structure, where agency seems to move more powerfully downwards than upwards, and relations get categorised taxonomically. This structure, they suggest, has been dominating our ideas, structures of books, music, and organisations for far too long. Rather, they suggest that we can, and indeed should, view the world more like a rhizome, where relations are made in any direction and in multiple ways. And if we take Callon's (1998) point that each actor is an actor-world, then the macro is also actually inside the micro (Singleton and Law, 2013). Viewing the world in this way allows us to see and comprehend the agency that a virus unknowable to the naked eye can affect a hospital's hygiene rating, or a theatre technician's skill in sterilising instruments can save a person's life, without predetermining or assuming which actors have more power than others. This way we can see and value the power that a healthcare assistant has when they act against the protocol, and importantly the agency they have in changing the protocol itself. Policies and their instruments are not only directive, but are acted back on, and made up by others in the assemblage (Law and Singleton, 2010).

This way of viewing the world is especially important for thinking outside of the socialist, capitalist, or neoliberal paradigms on which many of the essentialist arguments about the NHS rest. Tsing (2015) uses the example of mushrooms to help us understand how actors don't have to exist within an overarching umbrella of an economic system. She illustrates that by paying attention to the everyday activities of people and things it is possible to find ways of escaping or evading the seemingly all-consuming Foucauldian ideas of neoliberalism, and the biopower that comes with it. Like rhizomes, mushrooms can sprout up in different places, and make symbiotic connections which are not always at first apparent. When thinking hierarchically in a tree-like fashion we often think that all actions are influenced top-down or work in an orderly way, but thinking like a rhizomatic root or a myceliumic mushroom acting flat across the world we can begin to see the sites of resistance or evasion from macro-seeming systems like capitalism. And likewise, we see where and how everyday practices do contribute to dominant systems of knowledge. This is not to say that an individual actor is entirely powerful, but it gets away from the

idea that an individual's action does not matter; people and things act as part of, and in relation to each other. Certain people or things just get endowed with power through the way in which they are related in assemblages.

It is worth making the importance of power in flattening the world explicit. Flattening the world is a political move. Firstly, it enables us to see how power is pieced together, or accumulated, through assemblages, through everyday actions, rather than see power as half-innate or ingrained to the point that it is unstoppable. Secondly, it allows us to see actors we may have once ignored. By this I don't just mean other humans like those in the "Cinderella" equipment sterilisation unit I introduce in Chapter 8, but also non-humans. This is why I take influence from Actor-Network Theory (ANT), where human and non-human agency are seen on a par. My nervousness with ANT is because I also want to hold onto the affects, the more ephemeral aspects of life which are less easily placed in a network (Blackman, 2008; 2010). I would therefore describe this research as ANT-inflected (or maybe *inflicted* by hip implants and surgical instruments), meaning I pay attention to the way in which the crutches, hospital beds, and needle and thread end up contributing to the way in which an NHS hip replacement gets done (Law and Singleton, 2013). As briefly mentioned earlier, I see the objects of the NHS as coming into the scene carrying worlds with them (Callon, 1998); each object does not only have effect but is affected by others with each infliction. Bijker (1997) and Latour's (1993) work on "inventions", or "discovery", help reveal many forms of agency that are currently missing from stories about the NHS. Pinch and Bijker (1987) together showed that objects are never just invented by an inventor or even inventors, they are socially and materially produced by multiple actors, human and non-human. Hips were not just made by Charnley, as the NHS was not just made by Aneurin Bevan. They are also made by new plastics, by heart monitors, and beds. Flattening the levels of agency between human and non-human actors is key in the political work of flattening the NHS because it allows us to step away from anthropocentric narratives and give credit to the other actors involved.

Getting to know the NHS

As explained in the introduction to this chapter, I join Law, Mol, and colleagues in their “ontological turn”, so I can think about how the NHS is *done*, rather than what it *is*. This way of knowing is particularly useful when trying to flatten and understand the world through assemblages. Trying to understand what someone or something *is*, as a thing or person in and of themselves, does not make sense when we are trying to look at the effect of a hip implant, nurse, or laboratory technician on the world, and simultaneously how it is affected by it. These kinds of definitions are too static for the constantly moving parts of an assemblage. Rather, understanding these actors in terms of what they *do*, how they act on the world and the assemblage around them, allows us to let the NHS move and swell. It allows us to open up connections to the manufacturers and conference halls rather than close them down. The swelling is important here, because each actor does not move around independently, it brings others with it. Actors are like vectors¹⁰, where if one thing moves, it forces others to shift; everything is, to various degrees, in relation to everything else.

Knowing the world by looking at doings rather than beings also allows us to accept the multiple contradictions it sustains within it through everyday practice. As described in the previous chapter, Mol has helped us think about disease as multiple; these things and doings can exist in the world as multiples rather than having a singular, true or false, identity. Taken to the NHS we can also see that the NHS is multiple, contradictory things (both a high-tech showcase of world-class healthcare and an old and buckling institution) because it gets *done* in multiple and contradictory ways. Whereas the various definitions of the NHS as a beacon of equality or a bureaucratic burden are often used as oppositional fire power, I can see that the NHS can potentially be both, and more, of these things at once. As vectors multiply, so do the dimensions of the network, so multiple versions of the NHS-as-network can exist to give different but relatable realities of the world.

In seeing these multiplicities, it is integral to see these assemblages not just in space but also in time. It didn't take me long in my research on the NHS to realise

¹⁰ The idea of actors as vectors came initially from Maayan Ashkenazi in one of the many reading group discussions we had with the team at LSHTM.

that I also needed to enter different places in time, to when modern-day hip replacements, and the various object-vectors it dragged with it, first began to emerge in the NHS. But in doing so I heard multiple histories, multiple ways in which Charnley, his garden parties, or his “invention” of the hip came to affect the NHS. I took various historical truths into my analysis, from memoirs, Charnley’s writings, on-line content, the Royal College of Surgeons’ library, and orally from those who knew him. All of which are histories that have been continually rewritten to create multiple truths which have multiple effects on the world.

Finally, and integral to this study, is that I also re-introduce ideological ideas, but as actors on an equal level as the doctors, patients, and hospital beds (Deleuze and Guattari 1987; Law and Lien 2012). Viewing ideology, policy, and its analysis as actors - on the same level as any other, enables an awareness of the co-constitutive relationship between policy and the rest of the world (Foucault 1977; Shaw et al. 2013). In this way, these ideological views are not eliminated, or cut, from observations, but seen as an equal potential partner in how a hip replacement gets done (Strathern 1996; Mol 2002). The everyday doings of policy and ideology within health services research, the activists marching outside Parliament, and government policy documents are then incorporated as actors within the analysis.

My role in making the NHS

As part of all these multiple assemblages, it’s important to remember that this PhD and I are also actors. Rather than try to be some inert onlooker on events, I assume that I inevitably affect the assemblage, for instance through where I decide to go, what I say and do during data collection, how I end up interpreting events, and how I convert them into written word. Whilst I have illustrated the work I have done to critique my relations with ideological and political agents, these rehashed and oscillating thoughts still played out throughout my research.

The most common way of dealing with the researcher in the field of anthropology is of course reflexivity. This is the idea that through being open about their background and influences, and constantly reflecting back on them, researchers can understand their influence on the events they're studying and the ways they interpret them (Abu-Lughod, 1999; Bourdieu, 2007). In this sense I agree with this literature; it is impossible to eliminate the power of the researcher, to manufacture a non-biased self. My thinking, verbal, and physical twenty-odd-year-old-woman-self co-constitutes the scenes I study, and even in my choice of vocabulary I am asking the reader to interpret these stories in particular ways. As you can see from this chapter, I therefore spent a lot of time grappling with my assumptions, fighting with them and moulding them into something new. Hopefully in a way that takes into account the new, unsettling, or uncertain things I came to find.

In this research, however, I try to go one step beyond this. I don't only want to understand my effect on the assemblage in order to make better sense of my data and somehow make my data more authentic or believable. I do not want to eliminate myself – to reach some pseudo objective point where I can talk about the NHS in a more legitimised way. Rather, I want to identify my points of agency to understand how I can make change through research, to understand how I can be an activist scholar. As Singleton and Law (2013) suggest, I want to work on the world, not just in it. Here, the point of reflexivity is to ensure I am acting on the world in a way that is well thought through.

In doing so I draw on a long tradition of activist anthropologists and geographers who advocate various ways of retaining a political sensibility in research (Scheper-Hughes, 1995, 2009a, 2009b; Erikson, 2006; Moser, 2008; Castillo, 2015; Lancione, 2017; Cornwall, 2018). Scheper-Hughes for example varyingly talks of a public, engaged, or militant anthropology, where she thinks about how anthropologists should engage in political fights in the field. At times, though, it seems like being political entails taking a stance where, a bit like the NHS campaigners, a move away from the relativism I try to reach in this thesis seems necessary (see Scheper-Hughes [1995] and its responses for a discussion on this problem). Here, I want to ensure I maintain the complexity required to understand the world and find ways of intervening that take stock of a constantly shifting NHS. I therefore draw on Lancione (2017) and his search for

minor political encounters, and Moser's conception of a more gentle, feminist politics¹¹. Alongside Cornwall's (2019) notion that we could enable non-anthropologists to "act anthropologically", I use these ideas to think about how various actors in the assemblage (including myself) could use this analysis to find places to cut the network - break connections, make connections, hit back or evade them - in order to effect political change. Rather than just stay with the trouble, I think about how we can "become the trouble"¹². The position I have built so far in this chapter - to flatten, multiply, and act on the world - contributes greatly to this particular way of doing politics.

This particular theory-imbued methodology requires particular kinds of research practices. If my line of inquiry is to look at the everyday happenings in the NHS, I need to be amongst them, observing and to some extent partaking in them. This is where ethnography can give me a different knowledge of the NHS - to see how it is done, rather than take a step-back-overlooking view about what it is. Ethnography also allows me to traverse across assemblages, to start with a specific node - a hip replacement - and see where it leads me. Practically this involved hanging out in the places I describe, following people and things in their routines, and quite a bit of online research. I asked as many different people as many questions to as possible and began to find all sorts of obscure connections. Like the local in the pub who installed the pipe insulation that is vital for keeping exact temperatures in the equipment sterilisation unit I visit in Chapter 8. Whilst this of course only ever gives a partial view of the NHS, I hope that it allows me to cut the NHS differently, to get out of the dichotomised debate presented in Chapter 1. In the next section I go on to illustrate some of the particularities of doing minor politics in and on the NHS as part of this research.

¹¹ The concept of gentle, or modest politics came from Ingunn Moser's keynote address entitled "Queering the politics of health care: ethnography as modest intervention" at *Re-politicising public health: A workshop for early career ethnographers* London, 2018. See below and Cowan, Brenman and Kühlbrandt, 2019)

¹² The idea of "becoming the trouble" originally came from Federica Guglielmo at a workshop I organised with colleagues on "Re-politicising Public Health", sponsored by the Sociology of Health and Illness. Organised through King's College London and LSHTM, this space enabled me to explore these ideas further with an excellent group of early career anthropologists, including Natassia Brenman and Charlotte Kühlbrandt with whom I organised the workshop. These ideas majorly contribute to the discussion of this thesis. A workshop report can be found in *Anthropology Today* (Cowan, Brenman and Kühlbrandt, 2019).

Part II: You're not an orthopod are you?

Near the start of my fieldwork I attended the British Hip Society's Annual Scientific Meeting at a conference hall in Westminster. I sat in a nook of the converted Methodist Church jotting down notes, trying to capture just how grand this building was. There were simple but elegant carvings on the hems of the ceilings, way above my head. The walls were panelled in oak with secret openings to cupboards if you could spot them. The carpet, royal blue with gold patterns, somehow looking majestic rather than tacky in this magnificent building.

Someone came and sat next to me. I protectively turned my notebook towards me, and continued to scribble down what I could see. There were many men in suits, and some dressed down in chinos, surrounding the tables with tea, coffee, and sandwiches. Everyone was greeting each other as though they were old buddies; big smile, solid handshake, good to see you.

"You're not an orthopod are you?" I turned, defeated, like a rabbit in the headlights.

"How can you tell?"

An orthopod, for those in the know, is slang for an orthopaedic surgeon. It took all but a few seconds for the person next to me to suss me out as an outsider at this conference. This wasn't the kind of ethnography where I had to go abroad to some 'other' place like some of my colleagues at the London School of Hygiene and Tropical Medicine. But I did find myself in other places, or places where *I* was other, that I hadn't yet discovered in the country I have lived all my life. The ways I got there were multifaceted and at times complex – I think this is what qualitative researchers usually sum up as 'snowball sampling', but let me explain a little further.

Places where I was other

The NHS is everywhere in the UK. The amount of times I have ended up personally embroiled in the NHS for myself, friends, and relatives over the last four years has been countless. It is a field site I thought I already knew well. What's more, everyone has an impassioned story about how the NHS looked after their relatives, helped them, or failed to help them. Whilst PhDs are often characterised as something too complex for non-academics to contribute to, the politics of the NHS is something everyone is talking about. In the pub, in the gym, on the train. The conversation which follows after "What do you do then?" is usually lengthy. Everyone wants to give me their penny's worth whether they work in it, have been treated in it, or are currently helping to build the new hospital in town. On New Year's Day 2019, a drunk man in the pub almost started a fight with me because he overheard me saying something a bit negative about the NHS. It was difficult to get time off from my field site, to go away and reflect on it without it constantly interrupting with new material.

In trying to find other intersections of the NHS, other ways of cutting it, I also had to find versions of the NHS that were unfamiliar to me. Whilst I didn't have any knowledge or experience with hip replacements when I chose them as my specific nodal starting point, I didn't expect to feel quite as out of place as I did. One such place I found myself to be other was the British Orthopaedic Association's Annual Congress in Belfast; a throwing-myself-in-the-deep-end, first experience of hip surgeons in the UK. Here I saw the intersection of UK healthcare policy and its emergence in changing surgical techniques and forms of biomedical knowledge, as well as the huge exhibition halls selling various new hip prosthetics, imaging techniques, and surgical tools with wine, dinners, and charm. This experience led me to follow the paths that surgeons or theatre managers might take to buy or enquire about the tools for the job. It also encouraged me to spend time at other hip-related events such as the meetings of the National Joint Registry, and the British Hip Society's conference, where I quickly got found out as "not as orthopod".

Fascinated by this new world, I began my research by scouring the internet, spending days in the surgical and medical museums, and with my head in histories at the libraries of the Royal College of Surgeons and the Wellcome

Trust. In doing so I happened upon a connection which expanded the network through time, beyond the books and artefacts in the museums. It began when I sent a cheque in the post, a line of flight, to order a recently collated memoir of John Charnley. It was called *Memories of a Knight and his Lady* (Hughes, 2016). I received a phone call in response – not very many people were ordering this book. As a result of this phone conversation, the curator for the John Charnley Trust invited me up to Wrightington for a few days, where I went to see this important time-capsule vector in the world of NHS hips. I draw on this data in Chapters 6 and 7 – the oral histories I collected from Charnley’s scrub nurse and the curator of the John Charnley Trust; the tour I got of the hospital and its significant places beyond its (NHS?) walls; and the physical remnants of Charnley’s life’s work. This time very much contributed to finding an NHS in which I was other.

I also managed to find places where I was other back in the geographical place of my main field sites (I do my best to keep its geographical situation ambiguous for purposes of anonymity¹³). This is where I spent time shadowing physios, surgeons, nurses, and healthcare assistants. I sat in on patient consultations, group sessions prior to surgery called “joint school”, surgery itself, and saw the journey people took to recover whilst they were in hospital. I spent hours analysing all the documentation that was available to patients. Whilst I also visited other local hospitals in the local area where I spoke to a broad range of healthcare workers, sat in on joint schools and, was given tours of the hospital, I spent most of my time at the Fernwick Centre (not its real name of course). This is one of the many Independent Sector Treatment Centres that is contracted to deliver orthopaedic care by the NHS. The Fernwick Centre, importantly, has a strong not-for-profit mentality where 90% of their patients are funded on the NHS. I go on to introduce the Fernwick Centre in full at the beginning of Chapter 5, but it is worth saying now that I went there, made the connection, because so many of this hospital’s cyborg alumni urged me to go

¹³ If the geographical area is known, then it is likely that the hospitals and places in which I did my fieldwork could be identified. It is important to maintain anonymity here because I am not attempting to blame individual people in my critique of the NHS. Rather I want to draw attention to how the relations and assemblages I present here, come into being.

there. I followed their advice, curious to see what the ideal hip replacement actually looked like.

Alongside these more bounded hospital visits, I spent time in the local area talking to everyone I could find in my extended social network who has had a hip replacement. This started through talking to campaigners, friends, family, colleagues, and people in the local pub, and ended up with me going to spend time with an arthritis support group. These conversations enabled me to put the pieces together, to look at how hip replacements get done outside of the hospital walls. On one occasion someone invited me to their home whilst they were in recovery. Most people I met were eager to tell their story, to have it included in this thesis. I also met many people who work in the NHS through this method; being the kind of person who chats to everyone and anyone in pubs, trains, and cafes was useful here. Whenever I had the chance, I would talk to the healthcare professionals I already know and those I just met to talk about my analysis; to see if it was something they recognised in their own working lives. I wanted to double check whether I was being fair to the amount of hard work they put into their working lives and to understand how the hip-focused stories I tell here relate to other areas, intersections, or versions of the NHS.

Meanwhile, I tried to maintain a handle on the NHS outside of the world of hips. I continued to spend time with the local Save the NHS campaign, following their campaigns into local council meetings and the Clinical Commissioning Group's public engagement events about the STPs. I met with local and national organisers of healthcare and ended up spending a lot of time talking to healthcare assistants through a part-time job I had in an adult education charity¹⁴. Whilst this wasn't directly about hips, and some of this cannot be used as data as such, following the national and local debates about the NHS ended up becoming integral to writing a PhD on how I fell out of love with it. Oscillating

¹⁴ I worked for an organisation called National Numeracy from 2014-2018 as Research Executive for Health. The role was to improve healthcare workers' confidence with numbers. I co-produced and delivered workshops which involved talking to people about how they came to be worried about numbers and then using some basic sociology of education to reduce people's anxieties around the numbers involved at work and at home. Whilst seemingly unconnected to this research, this work meant I spent a lot of time in NHS hospitals across the UK and came to understand staffing structures from nursing and healthcare assistants' viewpoints. It also meant I had a lot of meetings with a myriad of NHS bodies including Health Education England, NHS England, and the Care Quality Commission.

between the specific world of hips and debates happening across the NHS allows me to draw lines between the actions of surgeons and theatre technicians to the policy documents produced in Whitehall. The parts of this that I can use as data, unknowingly at the time, became integral to the introduction, and I come back to some of this data in the discussion of this thesis. In the meantime, hips are the route in to thinking differently.

The data I present in the chapters that follow is therefore from a myriad of places. It included some places I was more comfortable in, but many more places in which I was other. It wasn't always clear when I was doing field work and when I wasn't – because the NHS seems to be everywhere in the UK I can't give a specific number of days or months I spent 'in the field'. But finding places I was other, walking through different doors than I was used to, was an important tool which enabled me to trouble and upset my long-held beliefs on the NHS. It enabled me to cut the NHS differently. It reflects the assembled way I look at the world in order to find different ways of working on it. Moving between such a variety of places as an ethnographer, however, also caused its problems. Getting 'caught out' as not being part of the orthopaedic world was just one of them. I soon found out that it wasn't just about which doors I went through, but also who I went through them as. Going into places specifically as a researcher, as someone who is interested in everything people say and do can also be problematic – especially for an organisation like the NHS. I talk in more detail about my ethical practice as an ethnographer below.

Ethnographers as other in the NHS

When I arrived for the NHS Research Ethics Committee meeting to ask if they would approve my study, I was a little surprised that I had been in the building before. The ethics committee sat downstairs, an immediate right turn after the security barriers. But I had been upstairs in this many-floored panopticon-style building, where all the walls were glass and the big hallway-hole in the middle of the building meant you could see offices and meeting rooms all the way up through this vertical corridor. Upstairs were policy makers for NHS England and the Care Quality Commission. Big Names, that I'd seen on policy documents

and Special Committees. I'd been in their see-through meeting rooms with a different hat on¹⁵, and became concerned about the surveillanced feel of the working environment and how little each of the Big-Named-people we met could speak honestly about policy changes in the NHS. Nevertheless, I was welcomed, as a representative of an educational charity, concerned about the skills of NHS staff.

But today, I was in this building as an ethnographer. I was now sat downstairs in the ethics committee room, feeling a little like I'd posed a question that wasn't meant to be asked in those premises. It was a big boardroom, one of the biggest tables I'd ever sat round. It felt as though they were immediately suspicious of a young woman anthropologist (see Borgstrom, [2018] for a similar experience). I was an outsider to the medical world and so may not be instilled with the same values, the moral norms that make up the ethical principles of the people in the room. I had tried my best to adhere to it in the endless paperwork, meticulously trying to explain the research process and my every potential action in a place I had yet to spend much time. Inevitably I made some mistakes. Like the power embroiled in the acceptance or rejection letters sent by the committee, this building was a way of maintaining power in the particular set of rules the committee sets out (Dixon-Woods et al., 2007).

There has long been concern amongst social scientists that ethical review panels such as the NHS Ethical Review Committee are too rigid for ethnographic research (Moore and Savage, 2002; Corrigan, 2003; Van Der Geest and Finkler, 2004; Dixon-Woods et al., 2007; Dixon-Woods and Ashcroft, 2008; Dyer and Demeritt, 2009). Being ethical, in these settings, comes to be about abiding by the rules that 'moral experts' have set, rather than ensuring researchers are reflexive about what is in their participants' best interests (Caplan, Arthur, 1992; Epstein, 2008). Moral experts make attempts to find moral facts using the usual fact-making process of excluding social relations and trying to find universal non-material truths in how we should act. But by excluding the social, these moral fiction-facts end up reflecting the current power structures of the day (Rothman, 1991; Caplan, Arthur, 1992; Epstein, 2006; Dyer and Demeritt, 2009). For example, Epstein (2006) illustrates how bioethicists' decision that it

¹⁵ This was my work with National Numeracy. See footnote on p57.

is immoral to buy and sell kidneys evades the fact that people are forced into that situation because they don't have enough money for food. The medical worlds' ethic ends up maintaining the status quo or power dynamics, whereby some people don't have enough money for food, in their rulings. Just as the campaigners try to constantly maintain the boundary between public and private, here we see the NHS ethics committee maintaining the boundary between good and bad research. Between the kind of research that belongs in the NHS, and the kind of research that does not. As someone who is trying to question the many boundaries which actors try to maintain, I didn't quite fit.

Aside from the many technical errors of not putting a reference number here or there, there were a number of mistakes I made according to the NHS Research Ethic Committee's rules. One of the major moral facts I missed was that I should not include people with dementia in my research. People with dementia were unable to consent in the way that presupposes a rational, fully informed subject. The concern is that people with dementia may forget what the study was about or be unable to comprehend it fully in the first place. I wondered, then, how research is done with this 'vulnerable group' or whether they are seen as unresearchable because of these rules on consent. I've since met colleagues who have done research specifically on dementia and they have navigated a way with the authorities and acted with care in relation to the people with dementia they were working with. But if some of the most vulnerable people are excluded from studies not specifically focused on dementia then they get omitted from the story, they do not get counted. I am concerned that people with dementia had to be excluded from this thesis. Indeed, the ethic to which I was commanded to abide may even contribute to the ways I saw some people, connected to particular categories, get forgotten about in Chapter 5.

The actors sat round the boardroom table also suggested that I should not be allowed in the operating theatre, because although people could consent before and after their operation, they could not continue to consent whilst they were under anaesthetic. This is the rule that just because you've consented once doesn't mean you have to continue with the study; you should be in a position to quit at any time. How on earth they ever let anyone consent to having an operation in the first place then, I don't know. The rigid rules bend when they reflect the wishes of those in power. Although theatre is a closed space to many,

it is a very open space to others. The theatre space is open to surgeons bringing colleagues from abroad to observe their technique. It is open to students coming to learn from their superiors. And it is open to commercial salespeople coming to maintain their relationship with their surgeon and theatre manager customers. What's more, surgeons are allowed to experiment, tinker, with their patients without consent (see Chapter 7). But social scientists who comes from a tradition of being on the patients' side amongst all these other happenings, are not allowed to observe even with consent according to this committee.

What I found most strange was the stark contrast between the protectionism of the ethics committee and what I experienced with the various people that I met: healthcare workers, patients, members of the public, policy makers, and management teams. Most people were eager to tell me about their experience; "write that down", "put that in your thesis," is what they'd say, hoping that I was taking their story seriously. The NHS is a topic everyone wants to contribute to, everyone has something to say about it. And even when I spoke to people about being in the theatre during their surgery, most of them were happy to have me almost as a chaperone – someone to keep an eye on what the surgeons were doing. If there's a researcher in there who seemed to care about them, the surgeons are probably not going to do anything they shouldn't, some of them suggested. Others just wanted their views projected more loudly, and perhaps in a way that they hoped might make change. It was these experiences that led me to take on a more "empirical ethics" (Pols, 2014), where I worked with the relations between me, patients, medical professionals, the technologies of the ethics committee, and the particular assemblages of the places I was in, to act in a way that was ethical for all.

Whilst I had to abide by the NHS ethic where it was relevant, I also acquired a more flexible university ethics approval¹⁶ and found that there were many places where 'The NHS' was that didn't come under the remit of NHS ethics; as suggested earlier in this chapter, the boundaries of the NHS are fluid, but are enacted in multiple ways. Firstly, the fact that the NHS ethics committee does not have jurisdiction over independent providers such as the Fernwick Centre,

¹⁶ This ethics approval was based on the idea that I would defer to the medical professionals' expertise in the field about what spaces I should and should not be allowed in.

meant that I could join a plethora of other ethnographers in finding ethical ways to observe surgery after all (Goodwin et al., 2003; Van Der Geest and Finkler, 2004; Pope, 2005; Prentice, 2013). This university ethical approval also covered me when I was attending conferences, local policy public engagement meetings, and campaigner's rallies. I spoke to commissioners, arthritis support groups, people who had had hip replacements in the past (there's a lot of them about once you get talking), people in the pub, on public transport. My only regret was that I couldn't spend more time in the big NHS hospitals because the ethics processes were so cumbersome and the obstacles too many when I could collect data elsewhere. But this didn't stop me collecting data. Everyone seemed to have something to say about their experience with the NHS, whether it was working with them or being treated by them. In fact, it was a field site I found almost impossible to escape.

Being immersed in the polarised debate I recounted in Chapter 1 also caused its problems. 'What side are you on?' I'd get people asking me about ten minutes into meeting them. Sometimes it was just to be curious but other times it felt a little more threatening. Spending time in campaign meetings and then a week later in a meeting to organise the 'Structural Transformation Plans' that the campaigners were so angry about was a little unsettling. I ended up feeling a like a chameleon, or perhaps worse, an investigative journalist. I feared that people had discussions about me in the background deciding whether I was trustworthy, or even if I was some kind of mole. So in amongst all of this I had to think long and hard about my own practice even if it wasn't the one that the NHS had prescribed for me. Ensuring I was communicating my research properly with those I spent time with, whilst constantly questioning my own assumptions to ensure a rigorous analysis was a complex process.

Acting with morality in mind: A manifesto for an activist anthropology

I started not by setting my own ethic – my own rules and regulations - but by acting with morality in mind. Rules are not always appropriate in every setting, what is moral and in the best interest for others can change and bend depending

on the scenario. What I was interested in was my praxis – the outcomes of my actions (Garnett, Reynolds and Sarah, 2018; Moreira, 2018), and the welfare of those I spent time with (Fluehr-Lobban, 2015). In line with the methodological and theoretical framework I set out in the previous sections, I am concerned about my own impact not just in the world, but on the world (Singleton and Law, 2013). I am concerned with an empirical, rather than a hypothetical ethics (Pols, 2014).

I began in the traditional place of thinking about consent. But here I'm not talking about giving people an information sheet and asking them to sign some paperwork. The whole idea of informing the patient about your research becomes a lot more difficult when the ideas in your research are purposefully in flux, so you don't necessarily have all the information to tell. I'm talking about a continuous understanding of consent, where the relations between myself as a researcher and those I spent time with are constantly navigated, communicated, and reassessed (Moore and Savage, 2002; Miller and Boulton, 2007; Fluehr-Lobban, 2015; Banks, 2018).

Indeed, I found doing some 'fully informed', I'll-tell-you-all-my-thoughts-straight-away-approach is fairly inappropriate in a time-restricted healthcare setting, where the patient's main interest is in receiving their care. A typical scenario when I started out was that a physio or a nurse would introduce me and ask the patient if it was okay that I was there as a researcher. I would tag in and begin my explanation of what I was doing but found myself interrupted – "oh yes research is very important, if I can do anything to help make things better for others like me!" - or something along those lines. Initially I was hyper aware of damaging histories and the Nuremburg Code; I didn't want them to just comment on research in general, I wanted them to tell me that they were happy about my research. But the patient and the healthcare worker have other priorities. The process of consent happens over time.

After the initial agreement I started to observe but also join in the conversation, be another person in the room. There is a time of getting to know each other, and more often than not, the patient used the research as a source of conversation (or at times distraction from pain) whilst they are being seen, or were waiting for a class. If they didn't, I would often start the conversation by

telling them about my research and they would usually respond by asking more questions or telling me their story of how they came to be where they were now. This was how I came to understand that consent in this setting is an ongoing process, as long as I was open about why I was there and what I wanted to do. It wasn't just the research they wanted to know about, they wanted to know who I was, what I was like, if I was someone that cared about them. And that is not the kind of thing you can convey in an information sheet.

Despite disagreeing with the strict rules of the NHS ethics committee, there were still times and places I had decided it was unethical to go. For example, when someone was suddenly sick and a physio was called down by a cleaner to help someone I hadn't yet met, I slipped back and waited at the nurses' desk. I wasn't able to introduce myself properly as a researcher when they were in this distressing situation. But the rules change and bend. Other times people began to get distressed whilst I was in the room with them and the physio; their blood pressure might drop and they'd be feeling sick and dizzy. But the patient would continue talking, communicating with me, signalling that they didn't mind or even wanted me to be there. I also tried to avoid being with patients in the clinic on my own without a member of staff in case an emergency happened that I wasn't trained to deal with. But on one occasion someone I hadn't met before fell in their room and there was a panic to find the rest blocks to help them back up again. The nurse attending to the patient asked someone in my direction to go and fetch the blocks. I looked behind me but there was no one else there – she was directing the request at me. I found one and took it in but the other was being used to heighten a very swollen leg of a patient I had just met that day. I had to go and get this one too, and luckily the patient was more than happy for me to lower his leg and take the block to help another. At times you are no longer just a researcher, you are an extra pair of hands, and it would have been completely ridiculous, even immoral, of me to refuse taking part.

Then came the analysis. Most formal ethics proposals are pretty thin when it comes to the analysis section. They care about how you store the data and how you maintain anonymity, but little is said about how you rarely take what anyone says at face value, and how you are trying to unsettle the knowledge many people are currently comfortable with. Of course, I did the proper analysis part once I 'finished' data collection. I did do the thing of writing, re-writing, and

analysing field notes. When I thought I should start really writing this thesis, I read through all my field notes and wrote themes, thoughts, or scenarios on little bits of paper, and sorted them out on a length of brown paper roll as long as my studio flat would allow. The end to the left was 'the beginning' of my thesis and the end to my right was 'the conclusion'. But my analysis went beyond this more traditional 'coding' process.

My analysis started way before I began formal data collection, and it will continue well after this PhD. I started writing little snippets of text from things I read or things I saw at the very start of my PhD. They were just little texts without a beginning or end as my supervisor suggested. An idea here, an idea there, discussed and pulled apart a few days later when I met colleagues for coffee. As I started data collection I began to tell and retell stories in a myriad of different ways to see how telling them differently made them have other implication for the research. The research team we built at LSHTM was an amazing space for this, but I also told the stories to everyone else I knew and met. I'd tell them to in the pub, to my mum, to other people I met during my research. I wanted to see how people reacted to them, how people spoke back to me about them. But this often had to be done fairly delicately.

"So what have you found so far?" was the most common yet agitating question I got from just about everybody. For a long time, I came up with a couple of well-rehearsed lines to keep people interested without having to give too much away. It wasn't so much because I was trying to maintain a 'natural' environment, clean of my impact on it, but more to do with my nervousness of upsetting the battle lines between either side of the NHS. I had tried to keep a bit of distance, to put down the placards and be an observer without practicing, but just as that didn't work in the hospital, neither did it work on the campaign. As you get to know people it becomes difficult to just leave the labour to others whilst you sit back and watch. Unsettling the ideas people are working towards whilst seeing them strive to do the best they can (be they nurses, commissioners, or campaigners) is sometimes a tricky position to be in. There were times where I had to stop making all these connections, talking about these situations with different people, and instead break connections to give myself some analytical space.

The first thing I had to pull away from was the campaign. Whilst the excuse of practical time constraints was entirely true (shadowing, writing up field notes, analysing, and being an activist, whilst doing a part-time job all became a little much), I was also aware that I was finding it hard to think ‘outside of the box’ of the campaign when I was constantly in it; even if I was there as an ethnographer. Whilst I had already tried to remove myself through thinking ethnographically about the leaflets and such, it was hard to maintain when you inevitably get sucked into the doings, as Scheper-Hughes (1995) illustrated so well with her experience with activists in Alto do Cruzeiro. The hardest thing to come to terms with was that I had built relationships and people were relying on me to take part, to help organise neighbourhood groups and maybe leaflet at the weekend. That I was going off to think outside that box was in some sense a betrayal to the people I had spent so much time with as well as my past/present self. Though I have gone back to talk with some of the campaigners about what I have said in this thesis, at that time I had to leave it behind to think again.

This feeling of betrayal was all the more familiar again when I came to leave the hospital, having gotten to know how hard staff are working and how much people care about what they’re doing. Even the surgeons who I probably go on to critique more than most clearly care about their patients in particular, masculinity-inflected ways. Hospital managers and local commissioners also care. They are impassioned by making the best patient journey, and treating as many people as possible with the budgets that they have. But unlike traditional anthropological studies, I wasn’t only studying people who were more vulnerable or ‘other’ than me (also see, for example, Ybema et al., 2009). Many of the policy makers, theatre managers, and surgeons are certainly more powerful, more mainstream, than me in terms of class, gender, sexuality, age, and profession. As an activist anthropologist, it is my job to assess these power relations, to see what comes out of them, and to criticise them if necessary. Because I am assessing relations rather than individuals, I should emphasise that I have used pseudonyms where possible¹⁷, and a surgeon I call Mr S is

¹⁷ The only time I have not anonymised people is where it is obvious it is them, and they have agreed to take part in the research. For example, Maureen Abrahams is easily identifiable as Charnley’s scrub nurse, and Paul Hughes as the curator of the John Charnley Trust.

actually two surgeons I amalgamate. I do so to maintain anonymity and displace some of the embarrassment away from any particular individual surgeon, and onto the relations between people and things.

I do hope, however, that in my writing, in my telling of stories, I can start to redistribute power where I find it coagulates. Within any story, there is the potential to maintain power relations or to rearrange them through how the story gets told. Having always been interested in literary techniques often associated with fiction, I attempt to employ bathos, humour, metaphor, and synecdoche to retell stories in ways that redistribute power. That of course also means taking power away from those who have it accumulated in their presence or in their actor-worlds. In talking about the power of writing – it is also important to talk about the power relations between myself as a writer and the people who read this text. At times I invite you, the reader to think with me by using the term “we”. It is important to specify that this is an open “we” used to denote and maintain a sense of collectively which is important for collective action, but which campaigns for publicly funded healthcare have inadvertently focused around the national. Rather, the “we” I use in this text has fluid in-out boundaries, unlinked to the national borders of the “N(ational)HS”. As I explained earlier in this chapter, the boundaries of the NHS are fluid. It may also apply to those in medical systems in other countries who see similarities with the context within which I am talking. And to other contexts with similar hierarchies, such as universities or government bodies. Join me if you want, or other me and be the “they” – be the outsider to my “we” – if you entirely disagree. I have tried my best to bring any potential reader with me, to get you to critically agree with my work. If any reader entirely objects, wants to mark themselves as a “they”, then I look forward to retorts. But at the same time, it is a proposal, a stance one has to take as soon as one commits words to paper – it doesn’t mean it can’t be rewritten, overwritten, or changed again. If there are those who are happy to be part of my invited “we” but want to disagree in places or principles then even better – I look forward to hearing these too.

This chapter hasn’t just been about putting down the placards; resigning as an activist to become a ‘serious academic’ is not my intention. What I have done here is to put forward a manifesto for how to maintain activism in anthropological research. If academia is to be taken seriously by those outside

of the field, I suggest it is imperative to think about how a thesis like this can actually come to work on the world. To be a serious academic, is also to be a serious activist. I have put down the version of the NHS held up on the placards, by showing how boundaries of the NHS are fluid, and how the NHS can be cut in many different ways. I look at how the NHS is done, rather than what it is. But at the same time, I have re-positioned my political stance by flattening assumed power structures to see how it is pieced together. Because of a commitment to look at the everyday – banal, troubled, or otherwise – I continue this thesis ethnographically. In doing so I try to find other ways of seeing the NHS, apart from the dichotomised debate portrayed in Chapter 1. In the chapters that follow I show how a new, more productive, activism for the NHS can be built through embracing the complexity and multiplicity of how healthcare is delivered in the UK.

5 | THE NHS: A BEACON OF (IN)EQUALITY

“You *have* to go and see the Fernwick Centre, they really were amazing”. My fieldwork was beginning to be directed by the people I was meeting who had already acquired a new hip. Two patients and a commissioner were keen for me to see this place; “it is how a hip replacement *should* get done,” I was told. The general hospital nearby had other ideas about the Fernwick Centre: “They just cherry pick all the easy patients!”. As the Fernwick Centre began gaining popularity, the orthopaedic unit in the general hospital was under threat of being closed down. I could see the empty beds as they showed me around. I hadn’t seen anything like it in the busy, supposedly overloaded, hospitals we are supposed to be strained with – this ward didn’t have enough patients. Staff would be redeployed each day to different areas of the hospital as beds were left empty on their ward. They were only left with the really complex joint operations, the difficult patients, and of course patients from other specialities when the hospital was short on beds.

As described in Chapter 2, hips have been at the centre of many of the economic reforms in the last twenty years. Particular efforts have been made to distinguish between the hips that need replacing in a non-emergency, routine way because they have worn out (known as elective care) and those that need working on because of a sudden fall (which is known as trauma care). Most hospitals now have an internal separation between trauma and elective orthopaedic care to ensure the routine operations run smoothly, with a production line of planned operations that can go uninterrupted by emergencies. The introduction of Independent Sector Treatment Centres (like the Fernwick Centre) who specialise in these routine operations has acted as a way of separating these routine hips still further. Moving these operations to different buildings, with boundaries of care made into bricks and mortar, is seen as a way of ensuring the production line doesn’t get interrupted.

The production line itself is called the Rapid or Enhanced Recovery Programme. Every orthopaedic hospital I visited had recently introduced these methods to speed up recovery for those routine operations and get people out of hospital

sooner. The basic premise is that by educating patients and preparing them before their surgery, they are able to leave hospital after two or three nights and finish their recovery in the comfort of their own home. The Fernwick Centre is at the forefront of this method and is, in many ways, seen as a centre of excellence. Patients tell great stories about their time there and publish them on NHS Choices, frequently giving their experience five stars. My supervisor relishes in asking me, “but where would you want your mother to be treated if you could choose?!”. *The Fernwick Centre*, I reply consistently. Despite the accusations of ‘cherry picking’, this is the care that every other hospital I visited aspired to give with their own adoption of the Rapid Recovery Programme.

At first it may seem this chapter tells a classic story of the neoliberalisation of healthcare, and indeed you can see how orthopaedic centres and care given to hips has been shaped by reforms associated with building economic efficiencies in the NHS over the years. However, after talking through the Rapid Recovery Programme and its successes, I go on to suggest that the Fernwick Centre has more embedded, implicit, sorting practices that are more akin to a market than the authoritative selection process we might associate with cherry picking. After illustrating these more unconscious, subtle, sorting practices in Part I, I go on in Part II to look at why some people are failed by this ultra-slick operation. Through looking at hip replacements when they are done at their best, I illustrate a version of the NHS that is far from an institution of care and equality. Rather than fixing inequality, redistributing wealth through health, I found a version of the NHS that is re-enacting social and material divisions beyond what campaigners so often label neoliberalism.

Part I: Smoothing the process

When I first went to the Fernwick Centre I was astounded by how relaxing it was; it was completely unlike any other hospital I’d been to. I’m used to people walking round with a quick step and a determined sense of direction. If there *are* people wondering round it tends to be patients and their families looking slightly nervous, uncomfortable, and sometimes distraught. But here at the Fernwick Centre the waiting room was calm. When I first went into the

reception and asked for Emma – the ward manager who agreed to meet me – the receptionist knew exactly who I was asking for and dialled the extension from muscle memory to let her know I was there. She asked me to take a seat and pointed to the fresh green, smart, sofa-seats and smooth coffee tables displaying the Fernwick magazines: “Stride” and “Making a Difference – the impact report for 2016”. I was surprised at how low down the two-seater sofas were and wished I’d sat on one of the more upright armchairs – but perhaps those ones were meant for patients. Nevertheless, as I sat in my uncomfortable seat, it was clear how well everyone knew each other as various colleagues walked past saying good morning to each other; even the postman had a long conversation about his knee with the receptionist. It almost felt like an episode of Trumpton, Balamory, or Postman Pat (for international readers imagine a classic English village with fairs on the village green where everyone gets along a little too well).

Emma came and introduced herself not long later. She led me to her office by ‘the ward’ (there’s only one), whilst telling me how the hospital interior had been designed to complement the tall fern trees and countryside outside. Being in the middle of a forest can make it difficult to hire nurses, but it makes an excellent atmosphere for the patients’ recovery. She showed me the inpatient therapy garden on the way through, which I’d seen on the video online. There were different surfaces such as gravel and curbs for people to practice on and some parallel bars for exercises. She was just as excited to tell me about the hospital as the physio and clinical director I had come to meet before. “I’d never go back to the NHS,” Emma insisted. At least ninety percent of their patients were still NHS funded so they could treat the patients that really needed it. But here, they could actually make changes when the research suggested it was a good idea – there wasn’t a wall of bureaucracy to hold you back. I knew only too well about this level of bureaucracy from trying to access hospital sites for research in the first place.

“The good thing about this hospital is that it’s physio-led – and physios are always looking at the most up-to-date literature and trying to find new and better ways of doing things. Nurses, on the other hand, look to the past – it’s more like ‘well this is how we’ve always done it.’” This was the premise for most of our conversation. She told me about how they had made the patient journey

as smooth as possible. Evidence-based medicine, as described in Chapter 3, is an important set of principles for the Fernwick Centre. Most importantly, of course, they've introduced the Rapid Recovery Programme which she described as "preparing patients' expectations" before the operation to give them a better recovery. They've almost stopped intravenous painkillers so everyone's just on oral medication which keeps it more consistent and reduces infection rates. They're now trying to improve "stand rates" – a measure of how quickly patients stand up by their bedside after the operation – so they're training the nurses to do this the same evening of patients' surgery, once the physios have gone home. It is all these little changes, Emma explained, that add up to give a better, and more streamlined, delivery of care. Almost every employee I met pride themselves on their success, citing a number of measures: low infection rates, the average length of stay, and the friends and family test (this final score on whether people would recommend the hospital to a friend or family member is a national measure across the NHS and is actually printed out and put on the staff corridors each month).

"But you get to select your patients, don't you?" I asked. I thought I'd ask the question directly – I kind of felt the responsibility to pass on the accusation that I'd heard all too often from the local NHS hospitals. Emma went on to explain that they didn't actually have that much control over who they selected – they can't just refuse patients if there isn't a clinical reason. They only have restrictions on who they can treat because it would be clinically unsafe to look after them at the Fernwick Centre. What's more, she told me, the Centre are increasingly having to take on different kinds of patients. A victim of their own success, there is not only higher demand to be treated at the Fernwick Centre from patients, but also from the commissioners who see such good results from their work. As a result, the commissioners have reduced the list of clinical exemptions; they recently had to start taking people on at a higher Body Mass Index and get equipment for people with sleeping disorders. After trawling through the NHS Choices reviews – "unbeatable service", "I wouldn't go anywhere else", "a model of how a hospital can and should be operated and run" – I began to believe that perhaps this really was a model hospital where the team continually spent a lot of time, dedication, and teamwork to make things both as efficient and as high quality as possible.

Dale, a senior physio, gave me a tour through the patient journey to give me a better idea of just how streamlined it was. The average patient stay is just 2.7 days, he told me, and here's how they do it. Two weeks before the operation patients attend "Joint School", a 45-minute class to prepare for their operation at the same time as they come in to have their bloods taken and meet the anaesthetist. A physio runs the session, demonstrating the exercises they should start practicing, and assuring them of the benefits of eating healthily and reducing alcohol and smoking consumption before surgery. The physio gives them a checklist of what to bring – slip on shoes, a change of clothes (they get them properly up and dressed the first day), and their medications. They talk about when they can start working, driving, and exercising after the operation. And then discuss what arrangements patients will need to make for their travel and the weeks after their surgery; anyone without clear help is asked to stay behind to discuss arrangements further. Finally, they teach them how to use the shoehorn, the sock putter-onner, and the grabber to get dressed, so they know how to look after themselves after the operation. Whilst they used to give this equipment out for free, they realised other hospitals in the area charged, so they have recently started selling the kit for fifteen pounds to increase their financial margins. However, they do give patients two pre-op drinks to reduce risk of blood clots, and an eighty-three-page-long patient guide which I'm told patients call "their bibles".

When the patient comes back two weeks later, they are then fully prepared for their operation. They are taken through from the outpatient lounge into one of the side rooms opposite the entrance to the theatres, where the surgeon will come and put a cross on their leg. The patient is expected to walk through to the theatre in a gown where they can be prepped in the anaesthetic room. They can do this prep even whilst the last patient is being taken through to recovery and the theatre is being re-sterilised. "It's like a conveyer belt!" Dale told me excitedly. They've got most operations to under an hour, he said enthusiastically as we walked past the loud hammering, the surgeons behind closed doors. There are three theatres and all the equipment is sterilised in-house so they have maximum control. After the patient has woken up from the anaesthetic in recovery, the porters wheel their bed up to the ward through the lift and transfer them to a bed. They put electronic foot pumps on their feet to keep the blood flowing overnight to reduce blood clots.

The Centre are trying to increase the rates at which they get patients out of bed the evening after their operation – this means they can go to the toilet in the night which reduces catheterisations as well as it being good for the muscles to get moving as soon as possible. But their stand rates are still low; there's room for improvement. Most people don't get up until the morning after their op, where the nurses must get them up and dressed for breakfast. The physio then comes around in the morning to help them with their bed and standing exercises. The bed exercises are done with a piece of drainpipe under their knee to help raise their leg and a board for them to slide their heel on to the side and back. They used to be able to take the drainpipe home but now they advise them to use a large bottle filled with frozen water and a towel wrapped round it. The physio will then teach the patient to get in and out of bed, and get them walking, starting on a frame and then hopefully onto crutches. The best patients progress onto sticks and can even begin to practice stairs. On day two patients are taken to 'the gym' for hip class where they're told what happened in their operation, given advice for home, and taught more standing exercises on the parallel bars. If it's sunny they'll take them in the inpatient therapy garden to do these outside. Finally, they are taken to do the stairs, and then after an occupational therapy assessment to ensure they have the right equipment to take home, they are discharged in the afternoon.

I was really impressed by my initial visits to the Fernwick Centre. Whilst my ears pricked up a little at the number of agency nurses and the introduction of the charge for some of the equipment, the consistent five-star reviews on NHS Choices suggested it hadn't made a great deal of difference to the patients' experience. Most orthopaedic departments in the area hardly even have any reviews, but the Fernwick Centre had many: The hospital was spotless, everything felt new and fresh, and every single patient has their own room with an en suite. One of the patient's that led me to the Fernwick Centre told me about how the toilet even had a plastic cover on it saying "clean" when he arrived, so he "knew it hadn't just had some other old man's shit on it". This wrapped-up-with-a-bow hospital felt like it should only be for private patients – but in fact the vast majority of people were accessing care free on the NHS. "How do you afford it within the tariff?!" I asked everyone I met who worked there. "I don't know!" people would reply in glee. Part of it was the excellent prices they got for their implants which they bulk purchased. But a lot of it,

Emma told me, was because they thrived on the constant pressure to make things as high quality and economically efficient as possible: “first do it better, then do it faster”. Through streamlining the process, they were now able to deliver almost luxury care, to the point where it was now becoming difficult for them to differentiate care for their public and private patients.

After these first visits I was looking forward to seeing the patient journey in action – was it really as smooth and conveyer belt-like as Dale said? If anything, I was starting to get a little worried that I might actually have to come out in favour of contracting the independent sector into our beloved NHS. For after all, this was, and still is, where I would want to send my mum if she ever needed a hip replacement.

Model patients with trademark hips

For some patients this journey really did seem to work. “Remember how I told you some surgeons have their trademarks?” Leah was telling me, “well we’re about to see one of Mr S’ patients - they hardly have any pain the next day, and they recover well in their first two days with us”. She could often tell one of Mr S’ hips before she even looked at the patients’ notes. We walked into Mrs Thomas’ room, who was sitting in her chair wearing a colourful blue patterned top, a pearl necklace, and white linen trousers – just the afternoon after her op. Her short white hair and make-up were done up nicely. “Hello!” she looked up with a big smile, “of course it’s okay for you to be here! I’ve had a wonderful time!”. She looked and sounded like she’d just come from a spa treatment, not a hip operation. “Close the door dear, let me show you how small my scar is!” As soon as I closed it, she lifted herself off the chair, seemingly pain-free, pulled her white linen trousers to her knees and pointed to a very small scar. “Oh no that’s your drain,” Leah said. “Oh...” Mrs Thomas pulled her trousers round a little so I could see another slightly bigger scar, about five inches long. It turned out she had already moved from a frame, to crutches, to sticks, and had even done the stairs earlier that morning. “I didn’t know I’d feel this good the next day!” she told me, “I had to ask my husband to get me some spare clothes as I only brought nighties!”. She said the whole experience was like a hotel – “and all for free!”.

She assured us that she would donate something to the hospital to express her gratitude.

Leah told me how patients like this were the “model patient”. These were the ones who were enthusiastic about their recovery and put in the effort to mobilise as soon as possible. The next day Mrs Thomas walked into the hip class confidently with sticks and a big smile. There were about five other patients in the class, all women, and most of them much younger than Mrs Thomas, who I suspect may even have been touching on eighty. “Did you have Mr S?” Mrs Thomas asked the others in the room. “Oh yes I chose him as he has the best reviews” one of the others said. After the talk everyone was asked to get up onto the parallel bars to learn their exercises and everyone seemed to vary in their pain levels. Some still felt nauseous from the anaesthetic, and others were very tired. But everyone except Bet, who was a lot frailer, was able to walk in with sticks or crutches. “Don’t compare yourself, everyone’s recovery is different,” James said as he taught them to lift their knee and swing their leg backwards and forward; everyone doing the exercises with varying degrees of pain and success. Bet and another woman called Julie had to sit down halfway through the exercises. But after the class James told me that it was good to get everyone doing it as a class because they start to get a bit competitive.

After the exercises everyone but Bet was sent to the stairs – most walked slowly but determinedly with their crutches down the long corridor, but Julie had to go in a wheelchair as she was feeling nauseous. An assistant physio came and helped them – “good leg to heaven, bad leg to hell” she told them as a reminder. After taking one crutch and inserting it in horizontally in the other hand you can use the handrail to help you up – the non-operated leg goes first on the way up, and the operated one first on the way down. Mrs Thomas was already two steps up when the physio was explaining it to the others. “I did this yesterday!” Mrs Thomas said gleefully. When she came down everyone cheered and clapped. Gradually everyone had their go and when they came down everyone cheered before they were released to walk back to their rooms. But awkwardly, there were fewer people to clap each time. Finally, even Julie managed to do it. This was the final tick in the box before they could be sent home that afternoon. I chased after James as he went to each room and filled out the paperwork for their discharge – they were a bit tight on beds today and others were coming

up from the theatres. “Can I borrow the foot pumps for home, or even buy some from you? It’s just I had a blood clot before...” Mrs Thomas asked. “I’m afraid not, but you have the socks and the medication.” Before she left, Mrs Thomas’ daughter brought a big bag full of boxes of chocolate and biscuits from Marks and Spencer to the nurses’ desk – all the staff were chuffed.

The model patients are the ones who are able to make a good recovery fairly quickly; like the woman we came in to see the morning after her operation to help her out of bed, but found her already up, fully dressed, and walking round her room to practice. The model patients are also the ones who you can find showcased in various magazines. The impact report magazine back in the reception depicted a fifty-three-year-old patient who said, “It was brilliant.” He needed a hip replacement after years of football, competitive badminton, and long distance running and now he was back running and training for a triathlon. Another sixty-three-year-old man in the Stride magazine also said his experience was “absolutely brilliant” and sent in a picture of him getting back into skiing. These stories mirror the patient story on the NHS Choices website, where a man in his fifties ran from Lands’ End to John O’Groats after his op. These are the patients who took up their role, played their part, and are feeling all the benefits of having a total hip replacement. They are also the patients that will talk to you in awe after their operation. “It’s truly unbelievable,” they’ll tell you. “The idea that you can just do this operation and it changes your life so much – it’s like you don’t even know it’s there!” they say pointing to their hip. It’s clear that these patients benefit greatly not only from their operation but the smooth process which they experience at the Fernwick Centre.

Ironing out the glitches

This smooth process, however, doesn’t happen on its own. It must be maintained; some conscious sorting needs to take place. Whilst patients who are obviously not suited to the Fernwick Centre, such as those who might need a bed in the High Dependency Unit, are usually sifted out by the GP, others slip through the net. These are usually patients on the borderline, where it isn’t quite clear whether they fit the clinical guidelines agreed between the Fernwick

Centre and the commissioners. But if the team are observant then they can sometimes pick these patients up at the initial assessment or the pre-op joint school, to do the work of ensuring the conveyer belt isn't blocked up by any patients who shouldn't be there. This work reinforces the narrative on what the neighbouring NHS Hospitals call cherry picking.

The team started to have a suspicion one afternoon when Tom came back from giving a hip class, mega stressed because a woman had broken down to him in tears. Her husband had just died. "What am I meant to do! I'm not an occupational therapist! I don't know how to comfort people and all that!" Tom was clearly a little overwhelmed by the encounter and was unsure how to react. "And then I looked at her file and he died over three years ago!" Leah stepped in to help: "Okay well let's go and look at her file together and we'll decide what extra help she might need".

We walked downstairs with him and a lady with curly grey hair walked past thanking Tom as she went by. She was hunched over a stick with a carrier bag that seemed to be pulling her down. "That's the lady I was telling you about!" Tom whispered as he pulled us into the physio room.

He opened up the folder and pointed – "Look almost three years ago! And I mean I'm not the best person at empathy but I was expecting it to be a few weeks ago!"

"Well maybe it's the first time she's had to go through such a big thing..." Leah thought for a minute... "does she have any other family?"

"No that's the thing. She said she has two children, but they don't talk to her because they blamed her for their dad's death... she says she'll be fine on her own."

"Well that's unrealistic... I think you'll have to forward her for another appointment with the occupational therapist... oh hang on she's had a hip replacement here before let's see who helped then..."

Leah flicked through the huge folder of patient notes... "hmm she stayed a couple of extra nights but not loads... look here it says her partner... oh look!"

She suddenly pointed to an address at the top of the page – “it’s the same address as Johnny who just left a week or so ago!”

“No!”

“Yes! Alcoholic! Got it!” Leah frantically started flicking through the notes – “And look she’s only just sixty and did you see how old she looked!?”

“But the nurse today just put everything as normal!” Tom justified.

“Ah I get the feeling this woman lies a lot – Johnny told me so many stories, constantly contradicting himself - like I don’t think any of it was true.”

I was struggling to keep up with this ‘aha!’ moment - “Who was Johnny?” I asked.

“He just left – he was here for two and half weeks, we couldn’t get rid of him. He’d literally have a bottle of whiskey by his bed. Look, Tom – in her notes – it says alcohol problem.”

“Okay well she needs to see the anaesthetist first then...” Tom was thinking.

Leah carried on flicking through... “uh huh! Here – the GP referral letter... history of alcoholism though she repeatedly states she has six-to-ten units per week. Treat as though patient has problems with alcohol...” she read them out.

“Okay we need to talk to someone about this...I’m not sure she can come here can she? I’d say go straight to the top,” Tom suggested.

They called the head of Clinical Governance for the hospital who (to my surprise) picked up immediately. Leah explained the situation – how the patient broke down in the class, how it seemed everything was fine in her medical notes, but how they looked back when they heard about her children and lack of support and found a lot of information was missing. “Ah I love you Harriet you’re so straight forward! I knew you’d be the right person to call!” Leah came off the phone and turned to Tom – “She said well done for flagging it up – all we can do is go back to the nurse, get them to take blood tests for alcohol levels et

cetera and see if they come up. Then we'll have to book in an appointment with the anaesthetist and another one with us... we might still have to take her on depending on the blood results but at least we've tried."

It was clear from the (frankly impressive) Sherlock Holmes-style investigation that some patients can be excluded from the walls of the Fernwick Centre. If they can find a clinical reason such as alcohol levels which could cause excess bleeding, then they might be able to restrict access and pass them back to the NHS. This is what the nurses from the general hospital were referring to as cherry picking. But they are also increasingly having to take on patients which have the immediate potential to stay longer than 2.7 days, they are becoming increasingly difficult to exclude. Having talked about the more explicit ways in which patients can get excluded from the conveyer-belt process to iron out the glitches, I go on to look at the more implicit ways in which patients get sorted. No matter where this boundary is, it is always fluid, and changing. This more implicit sorting doesn't stop patients coming to the Centre outright, but it does exclude them from the kind of care and experience of Mrs Thomas and the model patients with the trademark hips.

Falling off the end of the conveyer belt

Bet, the lady they left in the gym when Mrs Thomas and the others went to do the stairs, was definitely not up for leaving in 2.7 days. She wasn't a model patient who was aiming to get back onto a bike or run a marathon. She was having a hip operation to enable her to remain living independently, to do her own shopping and housework. She was probably about the same age as Mrs Thomas, but Bet was a lot less stable on her feet. On the second day she was still using a Zimmer frame to practice walking as she wasn't confident enough at this point to move onto crutches. Part of the reason was that she didn't have the upper body strength to support her as she moved. Each time she had to lean on her operated leg and move her 'good' leg forward she shifted the good leg along the floor, bit by bit, until it was almost level. She couldn't take the weight on her operated leg and nor could she take her weight off it with her arms – she obviously found this physical fate a scary business. "Now I shouldn't be able to

hear that scuffle!” James would tease Bet, trying to hold his frustration back. “Oh yeah the crackling...” – “crackling?!” James replied. “Oh no the shuffling,” Bet laughed.

When they were on the bars James put a chair behind her in case she needed to sit down quickly out of exhaustion or sickness. “You need to be on the righthand side of the bars if you’re a left hip dear,” Mrs Thomas called out to Bet loudly. “No, no, James asked her to go on the end,” I clarified. Bet looked confused by Mrs Thomas’ comments but eventually she found the right spot and James nodded at me to put the chair behind her. As they started doing the exercises, I could see Bet was struggling. She began with the first one okay but by the end of each set of ten she would more or less be pretending or just tell the others she was exhausted. “Are you okay dear?” Mrs Thomas looked concerned again, “do you have anyone at home to look after you dear?” Bet looked up. “No, I live on me own, me”, she said proudly patting herself on the chest, “have done for twenty years since my husband died.” “I’d come and visit you if I could walk!” one of the others said. All the others on the bars looked across sympathetically. When all the others went down the hall to try out the staircase, Bet stayed behind. James wanted to try out the model staircase with her – just a few steps up a wooden block with a handrail. She ended up falling trying and James had to catch her. She couldn’t get the tick on her checklist to say she could do the stairs.

Later that afternoon I went back with James to see how Bet was doing. She had been in one night too long already – according to James, she was “an overstay”. This meant that after the exercises in the gym James really wanted to be able to send her home. James was, after all, on a role with discharges anyway and there was pressure to turn around some of the beds for patients coming up from their op downstairs (although it’s worth noting that they had several spare rooms which they left out of operation to maintain an efficient service in times like this). He came into her room to do the checklist:

“In terms of being physio-fit I think you’re almost okay to go home because you’re going to be setting up to live downstairs. We can try the stairs again a bit later, but you can get around your house okay and get in and out of bed. We’ve already got you your equipment – a trolley, a support for your toilet, and a

shower seat. You have a son to help you, don't you?" James was trying to find a way for her to go home safely without doing the stairs.

"Well yes, but he's not really around much you see because he works. When are you going to send me home?" She seemed a bit nervous about this.

"Well hopefully this afternoon," James confirmed.

"Oh, I don't know about that... I live on my own you know," Bet looked really uncomfortable.

"Okay well we can get you some extra help. I can refer you to the re-enablement team who come in within forty-eight hours of you being home to check you have all the support you need."

"Oh, no I don't want people coming into my home. I've been on me own for twenty years and managed just fine thank you." She seemed really averse to the idea.

"Right okay, but you already said you want the extra physio time and they'll have to come to your home... unless you can get into the Centre?" James tried to negotiate.

"Well I can't get here on my own, I can't drive..." she seemed a little confused, "I guess maybe they can come in..." she seemed to be coming around to the idea.

"Well if you've got the physios coming in maybe you won't mind the re-enablement team, they just come and check you can cook and clean for yourself and your freezer has food in it... but you have your son don't you?" he reiterated. I couldn't help feeling from Bet's reactions that maybe Bet's relationship with her son wasn't quite how James was imagining – I hadn't seen a son visit yet but nevertheless a son who could help was down in her notes.

"Well yes but I'm really not feeling very well."

"Okay well how about I come back later and give you some time to think about the re-enablement team?"

James went to the nurses' station and put a little yellow button magnet next to Bet's name on the board and wrote in red "PM" – meaning that he said she's physio-fit to go home, but probably this afternoon. At the lunch time huddle James explained the patient: "She is physio-fit, and she has said yes to the physios but has declined the re-enablement team despite me recommending her for a referral." I was suddenly a bit concerned – should I say something? It was my understanding he was leaving her to think about it and we hadn't gone back to the conversation.

"You really think she can be discharged today?!" one of the nurses also seemed taken aback.

"Well medically there's no reason for her not to go from the physio's side but..." he seemed a little tentative.

"Well she needs to move her bowels before she can go home anyway," the nurse said.

Later that afternoon a nurse rushed in as Bet was struggling to use the commode to clear her bowels. "I told you!" James boasted in the corridor outside as the nurse went in to help her.

She was discharged later that day.

For many social scientists, the problem with the smooth-running conveyer-belt style processes such as the one at the Fernwick Centre, is that it is too rigid for the everyday realities of clinical care. As explained in Chapter 3, evidence-based medicine is seen as problematic because it doesn't allow clinicians to change and adapt to the situation using their past experiences. But here we saw that James was able to bend the protocol, adapt the boxes he had to tick in order to maintain the mirage of a smooth-running process. Bet was exempted from some of the tick-boxes because she wasn't able to make the stairs in the time-frame necessary. In doing so James maintained the conveyer belt, but pushed Bet off down the end. Like those supermarkets who don't wait for people to pack their bags, Bet was put through the checkout too soon.

Other times the box on the discharge form was ticked as if what the physio saw was universal. If they see someone do the stairs once, they assume they can do it again in an entirely different context. Janet, another patient I spent time with, had particular trouble meeting her tick box of “getting in and out of bed”. She was about sixty and looked after her mother who she lived with. Years of helping her mother out, helping *her* in and out of bed, and about the house and town, had started to impact on Janet’s own body. So when she went home she was going to need to be fairly independent.

“Fuck!” Janet was trying to lift her operated leg round onto the bed – it was the first one that needed to go up but her leg just stopped two thirds of the way onto the bed – she couldn’t quite get her heel to hook onto the mattress. “Sorry about the swearing!” She laughed in exasperation.

“You’re almost there! – Maybe try hooking your good leg under to carry it up?” Claire, another physio, was encouraging her. Janet tried to lift her good leg off the floor but she immediately put it back firmly on the ground as she felt unstable.

“Right let’s try this differently.” Claire took the remote control for the bed and lowered it a little. “Now I know your bed at home is higher but let’s try it here and see if we can build up. And then I’ll give you one of these – I call it my invisible dog.” Claire joked whilst pulling out a stiff flex which, when she held it out in front of her, had a long arm out to a loop at the bottom. “So you stick your foot in the loop and use the handle to pull your leg round onto the bed.” She explained.

Janet laughed as Claire pretended to walk a dog round the room. Janet was ready to give it another go, pulling on the aid to try and lift her leg round into bed. “It’s impossible!”

“Try putting one hand behind you to lift yourself back”

“It’s just not working – I’m not going to be able to go home today am I?” Janet was getting more and more agitated that her body wouldn’t do what she wanted

it to, but she was still keeping good humour with her oscillations of swearing and apologies.

“Hmm well can you get into bed the other side?” Claire asked, “some people find it easier with their non-operated leg first.” Well... Janet thought... she could swap beds with her mother.

Janet rested for a minute and then stood up and took the circumstantially long walk round to the other side of the bed. Claire moved some of the furniture out of her way so Janet could get round. Now Janet could lift up her good leg onto the bed first and use that strength to pull the other leg up. She gradually swivelled round and managed to get her good leg onto the bed. Now it was just for the operated one. It seemed to have come halfway round with her, but still she couldn't quite get her heel onto the bed. She was so, so close, I could feel it – her toes were touching her other foot, but she couldn't get it stable on the bed.

“Fuck!” she cursed again. The annoyance was sounding through the laughter this time. “Is there another way? There must be another way to just get on here!” She was laughing but you could tell she was also feeling a lack of hope – “I can't go home if I can't get into bed!”

“No you can't... So let's try and do this,” Claire was driving her but she was being encouraging all the same. “You're almost there... let's just try lowering the bed a little more.”

Janet did the same as before, brought her good leg up perfectly and was pulling in various ways, at various angles, trying to find a way to bring her immovable operated leg up to meet her. She managed to get it just that little bit higher this time, but still her heel wasn't quite reaching the bed.

Claire leant forward and put her index and middle fingers gently under Janet's heel, guiding it upwards still more. A few seconds later and bam! Janet's heel had reached the bed and although fairly skew-whiff, her whole body was on the bed.

“Yes!” She cried, “I got in bed!” Claire and I were smiling – “Great!”, “Well done!” “Now swivel a little and push back to get yourself in position.” Janet leant back and lay her head on a propped-up pillow. “Ahhh, I’ve done it...” A gasp of relief.

“Okay now what do you think I’m going to ask you to do?” Claire continued. I suddenly felt a change in mood I don’t think Janet had noticed yet.

“Rest!” she laughed.

“Okay, you’ve slept, you’ve rested, but now the sun is rising and you’ve had a wonderful sleep. Now it’s time to get out of bed” Claire smiled a broad cheeky smile, whilst Janet gave her a joking darting look.

Janet took a deep breath with the hint of a smile. “Right. Okay. I can do this,” she spoke to herself more than anyone else in the room. Claire explained that Janet needed to swing her legs round in one movement – or as much as possible. Use the momentum.

She made it about halfway round – her feet were now pointing diagonally off of the bed.

“Okay great now carry on sliding...”

She moved her good leg into her bad leg, guiding it downwards with her hands behind her. She had done it.

But it didn’t stop there. Claire raised the bed a tiny little bit. “Let’s see if you can do it higher – and without my help this time – I’m going to stand back.”

Janet looked exhausted but she went round with her legs again and as usual she got stuck with her heel just centimetres away from sitting on the bed. “Last time you helped me with this bit...”

“I literally just guided your heel with two fingers, I don’t think I took any weight at all.” Claire encouraged, from a distance.

Janet pulled her leg... it was a tiny bit closer... she pulled it again... again a tiny bit closer...

“Come on... that’s it... yes! That’s it!”

“Ahhh...” Janet breathed out, legitimately this time, and rested in a half sitting half lying position, but importantly with her legs on the bed.

“How do you feel?”

“Exhausted!” Janet was finally allowed to rest.

“Okay, so tell me have you got the arrangements in place to go home today?”
Claire just had one point to clear up before she left Janet to rest.

“Yes, my friend is coming to collect me.”

“Okay well as far as I’m concerned, I’m happy for you to go home today now... the nurses also have to come and see you but looking at your records here it looks quite likely.”

So Janet’s ability to get in and out of bed was ticked off and she was sent home to look after herself. But I couldn’t help wondering how she did at getting into bed later that night, without Claire to move her clothes and furniture out of the way, and without the ability to lower the bed with a remote control. More to the point, she had a lot more moral support in the hospital bed, with both Claire and I encouraging her and allowing her the company to laugh through her swearing and frustration. Without people to share that with, it must be difficult not to just feel frustrated when it takes you forty-five-minutes just to get into bed. Instead, Janet had been given a number of material aids to enable her to mobilise without human help. For those without husbands, wives, children, or paid help, they are trained to be a self-sufficient, skin-bound body as soon as they’re stitched up in the operating theatre. Aids such as “the invisible dog”, crutches, and sock-putter-onners become crucial technologies, bound up with the self-reliant body. Whilst these objects are severely lacking in terms of the moral support they can offer, they do help people like Janet leave hospital after the

two nights with some support. She knows how to get into bed, even if it does take her forty-five minutes, and she can walk from room to room with a trolley so she can try to make herself a cup of tea.

Thinking back to Mrs Thomas, the experiences of Janet and Bet seemed vastly different. Not only was Mrs Thomas in a far better place to leave hospital, she was also going home to a much more supportive environment surrounded by family fit and available enough to look after her. Mrs Thomas was going home to be made a cup of tea by someone who's there to care. A human hand to help you into bed in case you're just really tired from your exercises that day; much more effective than an 'invisible dog'. It seems that this smooth, 2.7-day conveyer-belt type recovery is a privilege for only the model patients with the trademark hips. If they can't get rid of someone through the cherry picking process, they might just be hurried off the end of the conveyer belt, and expected to land on their own two feet when they fall. In Part II of this chapter I lay out the differences between the model patients with trademark hips, and those that get pushed off the end of the conveyer belt. In doing so I suggest that the intersection of the NHS I have seen here, reproduces the inequalities it was built to alleviate.

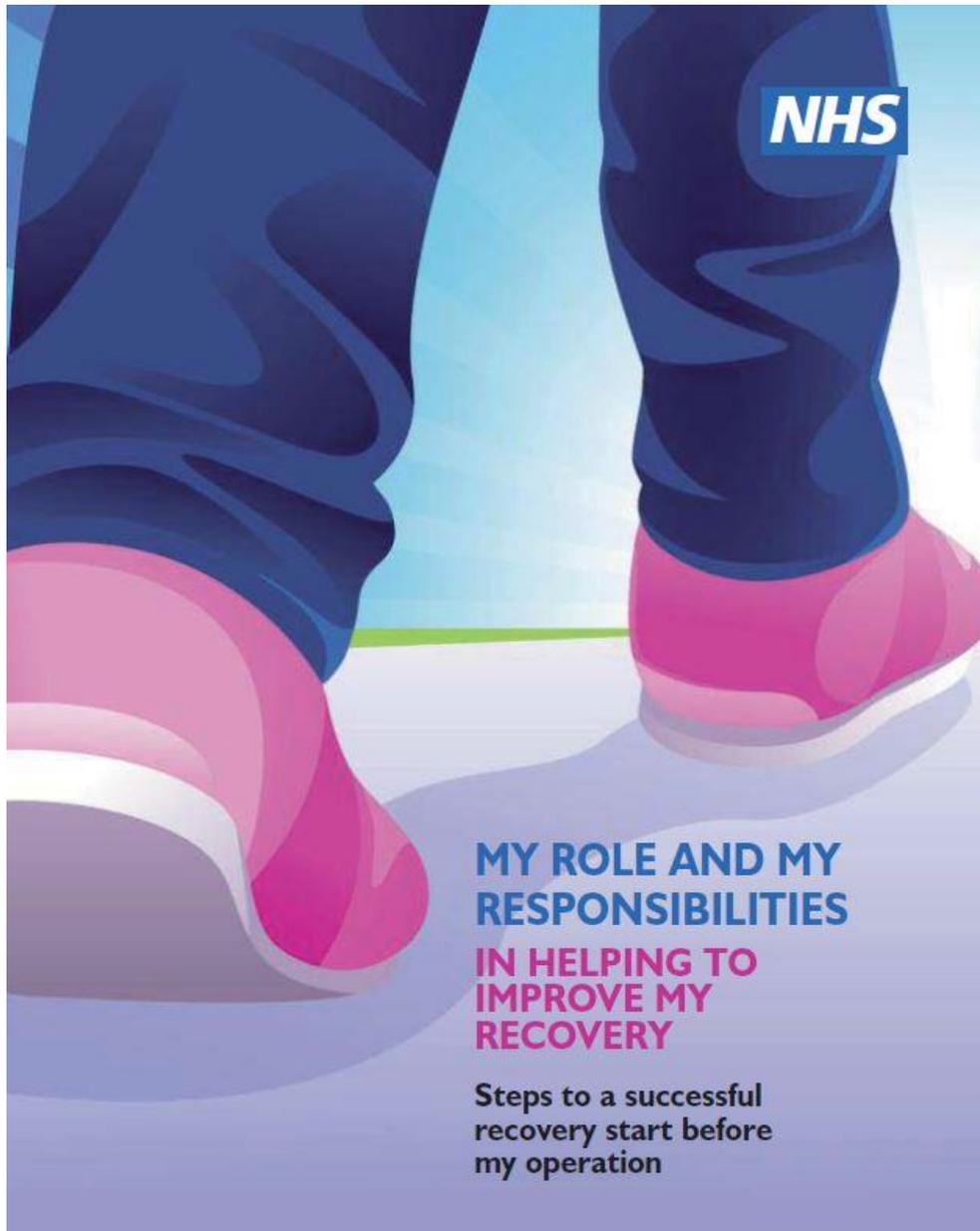
Part II: A cuppa tea for some

"I just needed someone to make me a cup of tea!" was something I heard frequently from the once-patients I spoke to. Perhaps as British as the NHS, a good old cuppa is not just a warming drink, but a feeling that someone is there when you're in need. It's an act of being looked after when you are not at your best; an act of being cared for. Fox (2004) suggests that for the English, tea still has miraculous properties which can alleviate pretty much any social or psychological ill and even bring cure: "Whatever your physical or mental state, what you need is 'a nice cup of tea'" (p117). Other patients I spoke to associated having someone there to make a cup of tea with the much greater help that their husband or wife gave them: "I just don't know how I would have done it without them."

But patients like Janet and Bet do have to do it without ‘them’; without someone to get them a cup of tea. Their needs are reduced to the essentials, whether they can be ticked off to walk, (possibly) climb stairs, or pass urine. “It’s all about managing patient expectations.” That phrase again; the sooner they’re aware of their responsibilities, the better. But it seems these expectations are different for different people. Some people are allowed to expect a cup of tea, and others are not. This is where the more implicit form of sorting, enforced through the everyday actions of healthcare staff, comes into play. In the second part of this chapter I argue that both Bet and Janet fell off the end of the conveyer belt because they were lacking in the other qualities that the Rapid Recovery Programme requires; namely (particular kinds of) social networks, money, and drive.

Being made a cuppa

Whilst the Rapid Recovery Programme is all about patients being independent, it is clear in the eighty-three-page-long guide that patients supposedly called their bibles, that patients do indeed need human help. Patients are reminded that when “Managing at home... you may not be able to do all the things you want... [so you should] gradually increase your activities over the weeks... be careful not to overdo things.” At this point the person in the background doing all the activities someone can’t do is left implicit; the focus is on the daily activities the patient can (and can’t do) as a self-reliant body. But when it gets down to the important details, the ethereal person in the background has to become more explicit. “You should avoid standing for too long... [so] leave the vacuuming to someone else,” and “when taking a shower, it can be reassuring to have somebody else in the house to help you, should the need arise.” As this ghostly background figure to independent recovery comes into focus, a bible reader will start to see that they not only have to be fit and well enough to Hoover (unlike, I suspect, Janet’s mother), but also have to be someone with whom the patient is comfortable being naked. It soon became clear going through this bible-booklet that the Fernwick’s expectation is that the patient will be surrounded by a lot of people fussing over them: “Another useful idea is



A leaflet picked up from the Fernwick Centre. This version taken from NHS Improvement (2012)

to set aside time each day for total relaxation, making sure your friends and relatives know that you do not wish to be disturbed.”

In this gospel of the Fernwick way, it seems patients are surrounded by husbands, wives, friends, siblings, and children. And indeed, when family and friends were present, I saw them play a huge role in the recovery process. “Text your husband he can pick you up in about an hour, we should have your medications sorted by then,” James called through to Julie whilst he was scribbling down her patient notes for discharge in the corridor outside. The assumption that family members could be on call to come whenever they needed the patient gone is paramount to the Fernwick’s smooth process. Julie, who was still looking sick and shaky from the aftermath of the anaesthetic was lucky to have her husband who could pick her up. But arranging to have family around can be quite an ordeal. One patient I met only had a daughter to help and she was a teacher – so she had to arrange a supply teacher for a whole week (surely taxes would have been better spent on a carer than a supply teacher for a week?). Patients who really can’t find someone to take them home have the option of paying a pound a mile for the Fernwick’s taxi service. Or others, like Bet, who had to wait for her son to finish work, can sit in the discharge lounge. But this waiting room to *leave* was dark and dingy – it looked like they’d converted an old office and used the left-over chairs. I’m not surprised Dale left this part out of his tour of the patient journey, it didn’t look nearly as impressive compared the light, airy, and spacious feel of the waiting room at the beginning of the patient journey.

In summary, you’re unlikely to experience the full five-star rating of the Fernwick Centre if you don’t have a solid social network of people that are available on call, any time of day, to help you, attend to the home, and care for the cup of tea. The Rapid Recovery Programme relies on friends and family to be able to take time off work to help out, to do the cleaning, be around when someone showers and provide transport. A housewife-daughter or a still-fit retired partner is ideal here, or failing that, someone who can take a week or two off work to help out. It is these actors who deliver the care – the cup of tea – that the Fernwick Centre cannot after 2.7 days. By embedding these lay carers in its very core, the Fernwick Centre manages to displace many of the costs, such as an extra night or two’s stay, onto schools who have to find supply

teachers, or families who take a hit in that months' income. But at the same time the requirement for a friend or family member to act as carer is kept implicit in the narrative of the Rapid Recovery Programme. The hidden discharge lounge, acting as a metonym for the invisibility of the need for lay carers beyond the end of the programme itself. Those without end up like Bet and Janet, unstable in their recovery, and surrounded by old office furniture rather than the miracles of a cup of tea.

Buying a cuppa

Another way of acquiring care, perhaps when those around you are too ill or elderly themselves, is to pay someone to give it to you. In the room next door to Bet there was another frail, more elderly patient, who I'll call June. She was also going to be staying more than two nights, but she was a private patient, so she wasn't pushed to the checkout in the same way. It was the afternoon after her second night, and she couldn't make it to class that morning because she was fast asleep and needed rest. James gradually got her out of bed and suggested that they do some standing exercises by her bed. He pulled up the rail at the side of the bed for her to use to lean on, just like the bar in the gym. He gradually went through each of the exercises he'd gone through in the gym this morning. He complemented her form; though frail, her thin frame looked like she had kept fit most of her life. As it was going so well, James got her onto some sticks to go for a walk up the corridor. But she started to feel sick from the anaesthetic, a little like Julie, so he took her back in a wheelchair to her bed and asked her to rest. She wasn't wheeled to the stairs in the same way as Julie, and instead James suggested that she should see how she feels in the morning, and if she's well enough she can come to the class. The longer June was there in the hospital, stuck on the conveyer belt, the greater the reward at the checkout in the end.

Not only can patients stay longer at the Fernwick Centre through paying for care, but some people I met also paid to stay in a local convalescence home for a couple of weeks after surgery; indeed, this is exactly what June had arranged. When I went to the British Hip Society, I saw a leaflet for one advertised in their welcome packs: "The Hamptons is the perfect place to recover from

orthopaedic surgery. Patients will benefit from state-of-the-art hydrotherapy, expert physiotherapy, and relaxing comfortable surroundings.” It’s only £250 a night with a minimum of five nights. Physiotherapy is charged separately on a per-treatment basis. As hospitals like the Fernwick Centre no longer allow people to stay long enough to recover until they are really back on their own two feet, a private recovery centre industry has developed where people stay in a hotel-like facility that’s staffed by trained nurses and carers. For Adrienne, another patient I met, the convalescence home not only meant she had someone to make her a cup of tea, but the tea was also having someone to talk to. In fact, she made such great friends with one of the healthcare assistants that she used to sneak her a real coffee made in a cafetière in her lunch break.

So for patients like June, the Fernwick Centre are in fact competing with the convalescence homes to keep them paying there for an extra night or so. Whilst the staff at the Fernwick Centre are concerned that they do not make the private patient’s experience special enough seeing as the rest of the care is so good, it became apparent that they give them a higher quality of care in more subtle, though significant, ways. The staff only know patients are private because it is in the handover sheet and they have two little grey leaves under their name where it is printed on the sign by the door. “And this is a private patient so look after them,” the lead physio would inform everyone in the morning meeting. Sometimes they’d have to remind each other in the corridor outside: “pri-vate” they’d mouth widely. When I asked them how they’d change, they told me it just meant they put on an extra smile and allow them to do one-on-one physio if they wanted (though they knew the class was better). But what it really seemed to mean is that these patients get cared for. They don’t get pushed out when they don’t want to be, and so they don’t have to push themselves to walk to the kitchen, make a cuppa, then push it carefully back on a trolley, trying not to spill it because they can’t walk without support yet. People with money get looked after.

Importantly it is not made explicit that you need money in order to be treated there. Rather, this notion is only referred to in the bible. First of all, they expect you to have certain living conditions which enable you to get better; for example, you need a freezer big enough to freeze single portions of food for at least a couple of weeks - oh and of course now for that frozen water bottle for

the exercises. You also need to find or purchase a chair more appropriate for you to sit on, and you will definitely need corridors to be wide and uncluttered enough to walk through with crutches. You need to be able to have your own patient transport – or at least pay for the Fernwick taxi to take you back. And from the casual tip about “wearing silk pyjamas” to help you get into bed, you might even have some quite expensive nightwear – if only Janet had those perhaps it wouldn’t take her forty-five minutes. It was clear, though hard to describe in my observations, that Mrs Thomas had more money than Bet and Janet. Her clothing was clearly more expensive – more made to look good than being made for the sake of practicality. And her constant talk of money – making donations to the hospital, trying to buy the foot pumps, and the disbelief of “not having to pay for this” – made it clear she had some of it to spend. But extraordinarily here, it isn’t that money has bought Mrs Thomas a separate process of having a hip replacement – in a separate building in a private hospital down the road from the state-run one that people can afford. It has given her a separate experience in the same time and place as Bet – money and the things it has given Mrs Thomas over the years has made the experience different despite the fact they both had the same process, the same physios, and the same hip class together.

Determined to make it yourself

The third thing that might help you have a good stay at the Fernwick Centre is drive; the forward-focused self-will to get better as soon as possible. Even if you don’t have money or much of a social network, you may just get away with it if you have this certain mentality to care – one that the patient literature defines as active, involved, and participatory.

One of the patients I met in the pre-op joint school was clearly a model patient in this respect. Ray had lived independently in a big manor house for years, despite his lessening mobility. His nearest neighbour, a local farmer, brought him in for the appointment and was clearly entertained by Ray’s fierce independence. He even had a piece of string tied round his stick which linked through a chain on his belt and up round his neck so if he dropped his stick, it

would always remain in reach, hanging down by his side. When I told him about my research, he excitedly told me how he was a researcher too – but in the field of engineering, he could fix anything! James spoke to him aside at the end of the class to make sure he would be okay after the operation as he lived on his own. He explained how he had fixed up loads of meals in his freezer that he could just microwave and explained how he had set up the kitchen so he would only have to turn on his feet from his freezer to the microwave. Then he had made his own system where he fixed a tray to a walker with wheels so he could transport his meal to the living room. James was impressed – “are you sure you don’t want us to issue you a proper walker-tray?” No, he liked the one he made better. They also talked about a raised seat for the toilet – but Ray was going to have to play about with it because it didn’t fix his toilet very well, but don’t worry he’ll sort it.

This was just the kind of patient that made the physios smile. The ones who, against all odds, would practice and practice, even just carefully walking round their rooms in circles until they managed to get better. But those who don’t abide by the role of taking a positive attitude to their recovery are not only looked down upon, but are seen as potential troublemakers. Like the woman who was described as overweight and “refused” to get dressed and go to the hip classes – she said she needed rest. She was seen as “a tough one” and had a star by her name on the handover notes after her first night. Or Tia who was in such pain she was hyperventilating, and they had to put an oxygen mask on as they wheeled her to her class. She told me she was desperate to get back to her fruit and veg stall in the market as she was losing money being here, but the pain surprised her. She didn’t participate fully in the exercises and kept falling into tears about it. The physio’s best guess was that she had “white coat syndrome”. At lunch the physios talked wide-eyed, laughing about how much of a fuss she was making: “have you met that woman?! I asked her if she wanted a suppository [the last resort painkiller before intravenous medication] and she’d already had one!” they laughed. “I’d watch her, make sure you write everything down in the notes. I mean everything,” a senior physio was trying to make sure they covered themselves, because the x-ray was absolutely fine. Here it appears having this drive is also about removing yourself from any emotional or vulnerable states – you must be devoid of fear or pain.

These “patient expectations” are set by the literature given to patients in their pre-op joint school. Alongside their bibles, patients are given an NHS-made leaflet on “My role and responsibilities in helping to improve my recovery” which claims to help them understand what they can do to “get better sooner”. This evidence-based leaflet reminds them about the need to cut down smoking and alcohol consumption before the operation, and to increase exercise and healthy eating – this is the part they must play in their hip operation. They are then given a “My to do list” to ensure they have prepared themselves for their surgery. “I need to...set myself a daily goal... follow the advice and instructions of my clinical team... be positive about my recovery.” The first-person narrative makes it sound like lines read out in chorus in a school assembly. Student-patients must even have the right attitude – to be positive at all costs. To help maintain this positive attitude, patients are given a daily diary log: “What are my goals? What am I proud of achieving? How much am I eating and drinking?” The one question which attends to the more emotional, “How am I feeling?”, has set categories of three smiley faces to choose from, limiting any kind of emotional response. It all feels very school-like once again, as the diary is written in handwriting on a background of lined paper. The patient is at once forced to be “independent”, but is at the same time infantilised, enforcing positivity from a place of authority.

This drive that people are required to have to be a model patient reminded me of the Protestant Work Ethic; a classic sociological concept I never really expected to come up in my thesis. Max Weber went back to the reformation in the sixteenth and seventeenth centuries to describe how a change in mentality from a Catholic to a Protestant, particularly Calvinist, relationship with god contributed to the rise in capitalist entrepreneurialism. Where Catholic relations with god were more about redemption and waiting for a better life in heaven, Protestantism advocated a need for people to prove themselves to god during their time on earth; to exert as much effort as they can to improve their life for themselves and their family. This was the “calling” of humans on earth, which Weber argued led to a moralistic “spirit of capitalism”. Back in the Fernwick Centre it was clear that patients were meant to see “Getting Better Sooner” as a “calling”, as a goal they are determined to get closer and closer to whilst it gets ever further away; the use of the comparatives making the journey

seem never-ending. The bible they are given to follow makes this particular Christianised interpretation even more apt.

Crucially, however, this particular kind of drive and positivity is not just some “cultural” phenomenon shaped by changing Christian discourses, but is shaped by particular social and material practices. Not only do you need to be well practiced in skiing to end up being a model patient in the hospital magazine, but you may also, having perused the website, be the kind of patient who is interested in additional classes after your operation for either mindfulness, yoga, or Pilates. The kind of food someone should want to go on to eat is also specified. Their nutritionist has made a number of recipe cards and videos encouraging you to make your own healthy, spicy baked beans, rather than get them from the tin. There are recipes for things like beetroot risotto, or coconut curry, and “pre-race pasta” which is advised for eating the week before a race. Whilst there are some more simple recipes for things like tomato soup, porridge, and fish pie, they are assuming that the people who come to the Fernwick Centre are there to cook home-made rather than buy ready-made things from the shop or even receive meals on wheels. The ways in which food, sport and exercise have contributed to shaping people into classed bodies is a well-documented Bordieuan concept (Williams, 1995; Warde, 1997, 2006; Atkinson and Deeming, 2015). But here I want to speak to how skiing, being an engineer, eating healthy homecooked meals, and running from Lands End to John O’Groats as a post-surgery pilgrimage contribute to different kinds of bodies - these practices and things get under the skin. The feeling of agency – where if you try, you do succeed – comes from a lifetime of material successes in a world devoted to meritocracy. Equally, these assemblages are beyond the skin. To further Bourdieu’s argument, I argue privilege exists not so much in the body, but in the relations between the hormonal and neural connections in the body and the fruit and veg stalls, toolboxes, and yoga classes. Here, it is clear that the patients the Fernwick Centre are most connected to are not only fit enough to go back to running and exercise but are also likely to enjoy particular activities associated with wealth such as skiing. They are probably interested in, and able to constantly make life changes, to take part in practices such as Pilates or cooking new things to improve their body.

Having a drive to get better is more than just a state of mind that can be switched on or off as the bible suggests. It is rooted in the Protestant Work Ethic, but it is more than a cultural phenomenon that exists in some ephemeral thought-world. Having the drive to get better sooner, is built up from a life time of connections which move under and beyond the skin, and get trophied through pearl necklaces and marathon medals. This is why the most celebrated patients do not only get to the point where they have a functioning hip for everyday life but an extra-ordinary hip that ends up skiing down mountain sides. Those unable to follow the bible due to their socio-material assemblages outside of the hospital, struggle.

From invisible dogs to invisible hands

Despite the wonderful reviews, the impeccable reputation, and my own initial amazement of the Fernwick Centre, it became clear that not everyone who came here was suited to the smooth process of the Rapid Recovery Programme. In order to do well a patient needs at least one of three things: a social network, money, or a Protestant Work Ethic style drive made possible through a lifetime of material circumstances. If they just have a social network then they will at least scrape through and will be looked after, their home cared for, and made a cuppa tea when they need to be resting. If they have money then they are always in a position to pay for care, to ensure they get made a cuppa tea because organisations are competing to make them one. And if they have a Protestant Work Ethic drive, years of privileged and successful practices under-and-beyond-the-skin, then their body may even end up being better than it has been for years. If patients have all three of these things then they are a model patient.

The problems come when people are lacking, at least to some extent, in all of these things. Of course, some people suffer more than others – some may kind of have a daughter, friend, or brother around but they can only visit one day a week; others may be able to find an appropriate chair but are limited in their freezer space, and others may have a desire to do their exercises but if they fall over once it knocks their confidence. The divide between being a model patient with a trademark hip or someone that falls off the end of the conveyer belt is

not always as black and white as I have presented here (a necessary exercise to make my point). It is a complex and subtle sorting process to match the complex and subtle ways in which people associate with what Bourdieu would call social, cultural, and economic capital in their lives. But here I've illustrated that social and cultural capital aren't just assets held and embodied by humans, but along with economic capital, are built together through the relations in human and material assemblages, both in the present and throughout any actor's life. The things that have come to make up someone or something's actor-world have capital because of the relationships between them – the capital is never in the thing in and of itself.

The things that make the Fernwick Centre the kind of place I would want to send my own mother are therefore in fact relational trade-offs; the luxury experienced by some patients is paid for by others who require more care, more support. Rather than being able to afford an extra night's stay or two for patients like Bet and Janet, the Fernwick Centre have decided to collaborate with good food, free television, and an en suite room for all. Rather than pay for a High Dependency Unit or even lifting equipment for less mobile patients, they have focused on congratulating patients who have the drive and ability to get up walking and do the stairs the day after surgery. And rather than provide a free transport service and ensure their hospital is easily accessible, they have focused on making the décor as tranquil as possible to match the forest outside. The exclusivity of this hospital is made material by its geographical positioning. It's tucked away in the countryside, half an hour's walk from the nearest bus stop. This makes a pound-a-mile transport expensive for many. The building is set far back from the road, and blends into the forest like a huntsman's lodge, rendering it almost invisible. Through streamlining the process, making it smooth and comfortable for the model patients, they take out any provision for the unexpected protrusions that can make for a more bumpy recovery. It wasn't just the good price for hip prostheses; the Fernwick Centre can afford such luxury on the same tariff as NHS hospitals because they choose not to pay for these unexpected events.

Despite the language of recovery, rehabilitation doesn't really fit here at the Fernwick Centre; the inpatient therapy garden is hardly ever used. I stared out at it through the glass doors whilst watching yet another hip class in the gym –

a beautiful day for it – but none of the glass doors were opened. I certainly couldn't see a patient like Janet going out to use it of her own accord - she was exhausted after her physio session and would be discharged in an hour or two. The garden, like the centre itself, remains a place for videos, a place for showcasing the model patients with trademark hips. Despite the fact that I saw many people in need of care, in need of the help to rehabilitate, this hospital wasn't where they were supposed to be. As they told me themselves, this isn't a hospital for sick people. It is a hospital to help people improve. This centre of excellence for the Rapid Recovery Programme is acting as a problematic example for the rest of the NHS.

The example the Fernwick Centre sets, however, is not just based on cherry picking. Whilst I observed remnants of these practices, the empty hospital nearby and the changing expectations from patients and commissioners mean places like the Fernwick Centre are increasingly having to take on the trickier cases. Rather, the example the Fernwick sets is about the more subtle sorting practices which distinguish what Jeffery (1979) described as good and rubbish patients or what Higashi et al., (2013) described as worthy or unworthy patients. Here I have shown that the things that make patients worthy or unworthy are overtly classed, and these classes are made up of differing alignments of people and things. The patients that get liked and cared for are those who have whole assemblages of money, family, big freezers and wide staircases. Their network also extends through time, as they will have had a lifetime of classed experiences which contribute to an under-and-beyond-the-skin Protestant Work Ethic drive. They are keen to follow the guidelines set out in their bibles and on the Centre's website.

Markets don't just work through sites like NHS choices where patients choose hospitals. They don't even work through cherry picking, where hospitals choose patients. Markets work through forming symbiotic niches; hospitals making themselves for particular kinds of bodies, and patients making themselves for particular kinds of spaces. This kind of market, the one of level-playing-field liberalism, is the one where large freezers, upright chairs, early-retired partners, and surgeons like Mr S (who I introduce properly in the next chapter) collect in similar points in time and space; where things, people, and attitudes cling to one another in classed assemblages. Niches are of course never clean

cut; they form over time and space. People like Bet and Janet are therefore still around but are continually rejected, pushed out to the peripheries because of their ill fit with others in the assemblage. As I suggest in Chapter 8, there are also always actors that act against these market trends – no market results in homogenous action. However, in this chapter I have illustrated how box freezers, absent sons, frail bodies and a lifetime of success not happening even if you try, don't belong in the Fernwick Centre. In the next chapter I will suggest that this is not the kind of market that has been introduced through the Health and Social Care Act in 2012, it is the kind of market that, if you cut the NHS differently, has been around since it was formed in 1948. The inequalities I record in this chapter have not just emerged out of neoliberalism. These findings take me back to the Protestant Work Ethic, a theory which situated the rise of this drive in the sixteenth and seventeenth centuries of the reformation. They take me back to Jeffery's good and bad patients written in 1979, and Bourdieu's economic, social, and cultural capital theorising life in the seventies – before the so-called beginning of neoliberalism in British politics. In the next chapter, I come back to the medical habitus I explored in Chapter 3 and illustrate how far this habitus is positioned from those of patients like Bet and Janet. If social, cultural, and economic capital have played such a large and historicised role in the shaping of the medical profession, and then arise again here in the treatment of patients, then perhaps there is something other than neoliberalism going on. In the next two chapters I argue that the making of inequalities I have illustrated in this chapter are to do with social and material practices that are far more historically embedded in the NHS.

In order to do so I go back in time, before Thatcher's term in office where people pinpoint the beginnings of neoliberalism. Rather, I draw on data situated in the sixties and seventies when Charnley was in the process of designing the modern-day hip replacement. This allows me to look beyond neoliberalism for assemblages that stretch further back in time and, I argue, have come to affect these more subtle forms of sorting, competition, and expectations.

6 | BECOMING GOD

Going up to Wrightington Hospital, the birthplace of hip replacements, was one way in which I was able to go back in time, and understand how hips had come from being a ground-breaking surgery with a two or three week-long stay in hospital and many more risks of infection and failure, to a 'smooth operating' 2.7 days. Whilst Charnley, the man widely credited as the father of the modern hip replacement¹⁸, had passed away, I had the privilege of meeting his long-time scrub nurse, Maureen. To my surprise she told me she never really met any of the patients after the operation.

"Well they went and did their rounds afterwards on a Wednesday, but I refused to go most of the time," she shook her head in dismay.

I was confused – why wouldn't she want to see the patients? Was she not interested in them?

"It was a cattle market!"

"What?"

"It was like a cattle market! They all stood round there... the radiographer, the surgeons, the doctors, the physios and they'd be like a board – they presented the x-ray before and after to each other and just have a conversation..."

"So, you mean they didn't communicate with the patient very well?"

She looked at me like I was mad. "They didn't communicate at all! They sent them walking up and down, three steps to the end of the bed, three steps back, like they were showing off their prize cow!"

¹⁸ See Chapter 2 for a full introduction to Sir John Charnley. He is an important person to know Chapters 6 and 7.

Thinking back, I probably made all sorts of reflex-assumptions about the kind of care nurses are meant to give which I'll have to pick up on later¹⁹. But what interested me here was the way Charnley and his board could gain an understanding of the patients' progress without talking to the patient at all. X-rays and eyeballing the movement of the body were enough.

Coming forward to the operating theatre in the present day, I found similar sentiments but with the use of new technologies. When I had finished watching my first hip replacement operation, Mr S²⁰ ushered me over to show me a video on his iPhone. He had just tied off the final stiches and was chatting to me whilst the others began to undrape the patient and clear the theatre for the next op. The video was of a woman, probably in her late fifties, early sixties. She spoke into the camera: "Hi, I'm Karen, I had my hip operation yesterday, and today I can walk without crutches." She walked down the corridor, away from the camera for a few paces, turned around, and walked back again. Just like Charnley's patients walked to the end of the bed and back. It was impressive. Yes, she was still limping a little, but she was fully dressed in a t-shirt and trousers and was able to walk on her own two feet. I'd already spent a long time in the recovery ward upstairs, and I hadn't seen any recovery that good. Mr S clicked out of the video and I could see he had dozens more of the same thing. He clicked on a video of a man this time: "Hi I'm Derek and I had my hip surgery yesterday. My pain has largely gone and now I can walk." It was impressive. But Mr S was also showing off his prize cows.

In the previous chapter I illustrated that patients like Bet and Janet who have hip replacements at the Fernwick Centre get continually rejected, pushed off the end of the conveyer belt, because they lack the socio-material circumstances to fit in with the Rapid Recovery Programme. I suggested that this prize model

¹⁹ See Chapter 8, p203 and p214

²⁰ 'Mr' is the professional prefix for surgeons. In the UK, surgeons have a distinct history from that of medical physicians. The Royal College of Physicians was set up in 1518, and from the middle ages physicians had to gain a doctorate before they could qualify (thus making them Dr). Surgeons, on the other hand, were not accepted as a Royal College until 1800. Rather they learnt surgery as a trade through an apprenticeship with either the 'Company' or as barber-surgeons'. They were therefore historically known as 'Mr'. Although surgeons now have to do medical training and gain a doctorate, they have retained the tradition of referring to themselves as 'Mr'. To use 'Dr' would be an offence. To use 'Mr' in this case is a sign of authority. See the Royal College of Surgeons, (2018a, 2018b).

of everyday care in the NHS in fact reproduces inequalities through welcoming those with the social, economic, and cultural capital needed to stay comfortably in the liberal level-playing-field, and sending those without it to the dark discharge lounge with old office furniture. Importantly I illustrated that this capital is not merely some symbol of power, but is material in the form of upright chairs, large freezers, and relatives who don't have to work. In this chapter I widen the network beyond the Fernwick Centre, and further back in time. I argue that these markets which sort the good from the rubbish, the worthy from the unworthy patients, have not come about because of current neoliberal pressures to increase efficiency and cut out some 'fluffier' elements of care in the streamlining process. Rather I think of Bourdieu's (1973, 2010) conceptualisation of fields as flattened plains to suggest that the markets described in Chapter 5 are produced through the socio-materialities of economic, social, and cultural capital present in the relations between staff, their labour practices, and their private lives that extend beyond the hospital walls. I look at how the niches of skiing patients, at-hand husbands, and pearl necklaces collate and gather in the delivery of NHS healthcare.

In doing so I refer back to the literature on the making and unmaking of the medical profession discussed in Chapter 3. I return to classic works on the medical habitus (Jenkins, 1996; Sinclair, 1997; Michalec and Hafferty, 2013; Prentice, 2013; Goodwin, Machin and Taylor, 2016), which although may seem aged in the literature, suddenly come back to life in the stories I present here. At the same time, I think about how the possibilities for practices of care (Mol, Moser and Pols, 2010; Winance, 2010), where patients like Bet and Janet are in focus, are limited by the competition for prestige, wealth and masculinity around them. The ways in which hierarchies get practiced in the NHS are of central focus here, including the chain of command from surgeons to theatre technicians, and the valuation of masculinised labour practices over practices of care. However, by flattening these ingrained hierarchies, I remake the classed and gendered relations to show them as symbiotic niches on a plain, where the material world becomes important in making up different actor-worlds. I illustrate both how these hierarchies are pieced together to create illusions, and therefore realities, of power, and how the relations between the human and non-human actors that come to make these assemblages result in the inequalities discussed in the previous chapter.

I use ideas of distance to think about how these classed and gendered relations are made. I begin by looking at the distance created through the competition for prestige. In order for surgeons to become distinguished, they must create distance between them and others in the field, as well as maintain the boundaries of the field itself. In the following section, I look at the distance created through the boundary-making of teams. Some people and things are allowed to enter the private homes of garden parties with caviar and others are not. At the same time surgeons are excluded from the homes of patients like Bet and Janet. They have no desire to walk through different kinds of doors. Finally, I explore distance through the divisions of labour between public and private, which are marked as masculine and feminine. Here I suggest that hierarchies are produced through sometimes quite random delineations of labour that get feminised or masculinised. Through looking at distance I illustrate how some nodes or vectors in the assemblage are choreographed as near to one another, part of the club, whilst other vectors are choreographed by surgeons, and similarly the physios we saw in the last chapter, as further away. But at the same time, repelling a vector away is just a different kind of force. The more that surgeons distance themselves from the socio-material needs of patients like Bet and Janet, the more they impact badly upon them.

Towards the end of this chapter I again argue that these repelling forces of distance are far more entrenched in the ethos of the NHS than campaigners imagine. When we flatten the imagined hierarchies of the NHS, we can not only see that the relations piece together classed and gendered ideas of worth, but that these relations also enforce the inequalities I presented in the previous chapter. I end by turning to the idea of detached concern which I argue is a product of the three distances I critique in the body of the chapter. Even in the critical literature, the need for surgeons and other medics to retain some form of tough empathy or detached concern is often maintained (Sinclair, 1997; Prentice, 2013). I join Brown (2015, 2017) and Arnold-Forster (2017, 2019) in suggesting that ideas of detached concern are as problematic for patients as they are for the surgeon themselves. Indeed, the relations entailed in detached concern are the things that come to make up another set of values in the version of the NHS I present here. Far from being a beacon of equality with values of care, equality and compassion, the NHS I present here is a beacon of inequality, with values of wealth, masculinity, and prestige.

To distinguish oneself, to become god

When Charnley was at St Peter's pearly gates he saw three chairs: Barnes on one side, Murphy on the other [both his colleagues] and Jesus sitting in the middle. As Charnley approached the gates he said to Jesus: "Why are you sitting in my chair?!"

A common joke amongst orthopaedic surgeons, as told to me by Maureen in the Charnley Arms – a pub in Wrightington named after Sir John Charnley

At the British Hip Society's Scientific Conference in Westminster Hall, a young, forty-year old, surgeon was presenting back from his exchange trip to America, sponsored by the Rothman Ramallow fellowship. His face was lit up with excitement as he talked about hospitals that looked like hotels, and one centre in particular which delivered *outpatient* total hip surgery – "there wasn't even one hospital bed, everyone left just a few hours after surgery!" He was clearly very excited about what he saw. He projected the image up on a big screen; an older woman, still looking delirious, leant over a walking frame. The surgeon revealed the slide as if it was a magic trick: "and here she is high as a kite on ketamine a few hours after surgery!" he joked. I was expecting an uproar at this crass gag and wondered myself how she could have consented when she still looked out of it. But the audience laughed. Later on, a surgeon from that very hospital delivered the key-note speech on this awe-striking process, and whilst some of the questions raised concerns at readmission rates, he was largely applauded for his achievement.

As I illustrated in the introduction to this chapter, reducing the recovery time of patients is currently one of the main sources of competition amongst surgeons. By revealing a confused woman up on the screen, this surgeon presented the achievements of the American orthopaedic centre as heroic. Just as when Mr S showed me video after video of his patients walking a day after surgery; again I was supposed to be awe-stricken, and to see these patients as the marvellous creations of Mr S. I have often read literature on the idea that

surgery is more of a craft, or an art, than a pure science (Prentice, 2013), but they never mentioned the ways in which this made patients into *pieces*, or *objects*, of art. Patients are an object supposedly only of the surgeon's making, to show off to others rather than treat as a person someone needs to talk and relate to, to understand what resources and attention they need. With the knowledge I had from patients like Bet and Janet, and the recognition of the deliriousness of the lady projected on screen, I couldn't help feeling like I was smiling cheerfully at a badly coloured-in picture a child had just brought home from school. The conflicting feelings that arise from traversing so many usually-distanced parts of the assemblage were beginning to become apparent.

The ultimate hero to aspire to in the orthopaedic world is Sir John Charnley. In *Memories of a Knight and his Lady*, there are many stories from various surgeons and their wives of their visits to Wrightington Hospital. Charnley is known as a "White Knight" (Curwen-Walker, 2016, p157) by some and "the Boss" (Maltby, 2016, p304) by others. One surgeon noted the coincidence that his initials were "JC" referring to Jesus Christ (Boyd, 2016), and he still occasionally gets toasted at dinners as "The King of Hip Surgery" (Weber, 2016, p242). As well as being given a number of honorary awards throughout his career, and being in the "National Inventors Hall of Fame" (Hughes, 2016, p331), Charnley has been said to "go down in the gallery of heroes" along with Joseph Lister, the surgeon who developed antiseptic surgery (Platt, 2016, p329). Some suggest the world is in his debt (Kelly, 2016, p199), and he should have been given the Nobel Peace Prize (Siedenstein, 2016, p268). When I went to go and visit Wrightington myself, however, the taxi driver was bemused by how many international visitors came to visit this strange old hospital in the middle of nowhere.

Paul, the curator of the John Charnley Trust, gave me a tour round the hospital with Maureen and Pat, the wife of John Murphy (one of Charnley's colleagues). We spent the morning rummaging through garages and old storerooms where Paul excitedly showed us some of the very first prototypes of Charnley's inventions. A dusty green helmet-suit was hanging on an old skeleton, and some old dull panels of glass, which were the original "greenhouse" sterile room, were resting against old boxes. He excitedly called me over to show me a box full of hundreds of old pieces of plastic that I vaguely recognised as parts of the cup and ball of the hip prosthesis. They were murky white in colour, with half

sawn off, smooth and rough areas where he had been experimenting. Once again, I was clearly meant to be impressed by this artwork; like I was seeing early sketches from Picasso himself. In his memoirs I found out that Charnley was known to spend his Christmas at home in his workshop whilst his wife and children went away to visit family (Barnes, 2016, p56), or he would come home early from family holidays desperate to finish a paper or a book (Ibid., p276). His work was clearly his life; he was “very much a ‘can do’ person” (Curwen-Walker, 2016, p156) and would always give, and therefore expect 100% from others (Older and Older, 2016, p318).

Back in the Charnley Arms, Pat and Maureen told story after story of “JC’s” amazing life. After telling me the joke about his place on Jesus’ throne in heaven, they suggested that this god-like tendency is hard to avoid when someone is changing people’s lives so drastically. But for others in the field this caused some jealousy. When Charnley was still working on his first design for a hip replacement in his workshop, his best friend Maurice Müller stole it. A few weeks after the incident, a parcel was delivered, and inside was the original implant marked “your one”, and one with a slightly adjusted stem marked “the one I made”. This new part got called the Charnley-Müller stem, and began to get used in rivalry to Charnley’s invention. Maureen was then asked to keep all his home-made instruments labelled and locked up when they were not being used in theatre to ensure no invention was ever stolen again. Paul followed this story with another about Mr Kevin Hardinge, who developed a new surgical technique to reduce muscle damage in hip replacements with his colleague Mr Geoffrey Vaughan Osborne. Paul told me in a hushed voice how Hardinge worked to publish the paper in secret and only gave Mr Osborne acknowledgement in the footnotes. This approach is now known as the Hardinge approach, and Mr Osborne got none of the credit at all (Hardinge, 1982).

The fight to get your name on something is rife in this industry. Having an invention with your name on it gives you prestige, as well as a legacy to your career. Just a brief walk around the Royal College of Surgeons museum and you can see the fetishization of these many strange artefacts, with royal crests, ties, and gifts from one surgeon to another. And these aren’t just objects fixed in time, part of an older world that belongs in museums. When I was at the Annual

Congress for the British Orthopaedic Association (BOA), they had an award ceremony handing out similar artefacts; the President himself looked like a town mayor, wearing a medal with royal blue ribbon on top of his royal blue and red striped BOA tie. The medallion looked so large and heavy it was impressive he still stood with his head high. As he called out each award, they played a few seconds from a grandiose song by Queen or U2 whilst the winner came to the stage. They would then get to shake the President's hand, have their photo taken, and get given some kind of plate, cup, or medal. What would otherwise be worthless inanimate objects are infused with the glory of a Queen song and a round of applause to ensure some surgeons are made distinct from others. Those who don't manage to live up to Charnley's name steal remnants of his history. Paul, as a keen follower of artefacts, told me how Charnley's certificate for being an honorary fellow of the American Orthopaedic Association now hung on the walls of a company rep in the states. Similarly, one of his students stole Charnley's Lister Award from the museum to put it in his own home. Even without the work, owning the artefacts still gives a glimpse of hope or prestige for some.

The silver plates, medals, and ties are all artefacts which not only produce prestige, but also produce a repelling sense of distance when seen as part of an assemblage. Those who manage to claim such prizes are brought up to the stage, away and above everyone else in the room. They could physically distinguish themselves from others and claim closeness with the talismans that drew them there. As Charnley's accolades grew, he could even produce his own tie and emblem; his own artefacts, for his own society. The Low Friction Society, as it is called, created its own boundaries which I draw on in the next section. But from this Society's very name, a reader may already be feeling some form of distance, or even repulsion. Indeed, as you may be able to tell from my descriptions, the objects and artefacts were so distant to me that they felt almost absurd. And that is because they are not for people like me to compete for. I am only allowed to see these trinkets in museum cabinets, behind a panel of glass, which allows me to see but not touch these rarities. It is the glass in these museum cabinets which cut the network, create boundaries in the assemblage that very much keep the power of these artefacts alive for those to whom they are precious. The plates, medals, and ties can only ever be touched by an in-crowd of competitors who are actually interested in the artefact, who are all competing for the same

objects-as-capital. These objects contribute to forming a different field; a different set of rules, targets, and desires to my own, and I imagine to many patients who get treated in the NHS. This field, though of course fluid in its boundaries, acts also to repel those outside of the glass cabinet.

The most recent claim to fame is of course the Rapid Recovery Programme. Almost every surgeon I met, or came to know about, claims to have been involved in its development. At the Fernwick Centre, Mr S laid claim over the Rapid Recovery Programme as his own, and told me he had received a government grant a few years back to spread its use around the UK. With a quick Google search, I also found that Zimmer Biomet (2019) have a whole website laying claim to this particular innovation. They have such a reputation in the orthopaedic world, that, like Charnley, they too give out their own awards and accolades in the form of Fellowships (British Orthopaedic Association, 2019). The team at the general hospital were also excited to tell me about what they called the Enhanced Recovery Programme. And one time I met a nurse in Bristol who told me I had to meet such and such an orthopaedic surgeon because it was actually *he* who had developed this great new thing called the Rapid Recovery Programme. Just as it was in Charnley's day, it is difficult to establish a single inventor who should actually win the prestige. There are often many factors that contribute to new inventions, and who ultimately ends up getting the recognition. But the illusion that one person could become god in the same way as Charnley, means the competition is constantly there.

Thankfully for all the surgeons who make claim to the Rapid Recovery Programme, it isn't the only route to gaining prestige at present. Some surgeons team up with hip implant manufacturers to trial new coatings which would integrate better with the bone, or new surgical techniques which require new instrumentation. In these cases, PowerPoint slides and posters are embossed with logos from Stryker or Zimmer Biomet, often using measures such as the predicted lifespan of the implant, or the number of days it takes for a patient to be discharged. Still others pioneer new IT technologies and trial things such as virtual clinics to see if the three or six-month follow up can be just as effective through surveys, x-rays, telephone, and online portals so only those at risk have to attend in person. Whilst I talk more about the ways surgeons gain prestige through chasing data in the next chapter, it is as a result of these papers, posters,

or talks, that surgeons have a chance to go up on stage with the President of the British Orthopaedic Society; to become distinguished from their peers.

To become a man (and it is usually a man) of distinction, to be a god-like figure worthy of a knighthood, is to separate oneself from others. It is to set oneself apart from people who may be otherwise similar and in doing so to gain a status which is recognised by others - or at least others in one's field. Here I illustrated that the field itself is partially formed through various seemingly absurd objects or forms of capital; or at least these objects seem absurd to those not also tied up in the same assemblage. The prestigious talismans and trinkets cut the network, cut the field, at the same time as making it. The surgeons, I argue are competing in this other field (one of the places I was 'other' in Chapter 4), with 'othering' forms of capital. They are fighting to be up on stage with the President of the British Orthopaedic Association, rather than in fields where the thing being fought for is a nice cup of tea.

As I explain further in Chapter 7, this competition also means patients are required to perform as a work of the surgeon's art; as a model patient with a trademark hip like the ones in Mr S' videos. To become distinguished artists, surgeons also need distinguishing works of art, model patients with trademark hips. In the next two sections of this chapter, I explain how these surgeons unconsciously reproduce themselves in the masterpieces they create. As Charnley and others work 100%, they expect their patients to work 100%, with the Protestant Work Ethic they themselves embody. For prestige is not the only thing causing distance between surgeons and patients like Janet or Bet. And trinkets are not the only difference in the kinds of socio-material capital surgeons and many of their patients are looking for.

The team led by the richest man in the room

“The thing is that it’s all about being a team – and we are a team here in the theatre and that’s what makes it work,” Mr S was explaining to me whilst he and the resident surgeon were gowning up.

The resident surgeon was stood behind Mr S, shaking his head with wide eyes in jest.

“Oh, fuck off!” Mr S laughed as he turned to follow my eyes behind him.

A scene in theatre

In the break, after another operation, Mr S gave me a look and a gesture which indicated I should follow him out of the theatre. “Sorry for the faff, I know it seems to take a long time in between each op but we’re actually quite efficient here,” he apologised as we left the others to clear up and prepare for the next operation. He took me to his office and brought up a Power Point presentation on his computer screen; this is the presentation he often delivers at his talks on the Rapid Recovery Programme. He had spent years perfecting his technique, but now he wanted to look beyond his surgical skills to the recovery process. The first, and most important thing, he told me, was that they had to think about the whole team, including the anaesthetist, the physios, the theatre staff, the nurses, and the occupational therapists – well actually they did without the occupational therapists in the end as they realised a physio could do it. When they were given funding by the Department of Health to teach others to do this programme, he would always say no if surgeons asked to come and observe on their own. They could only come if they brought the whole team with them.

But despite these wonderful PowerPoint slides on the whole team approach, I couldn’t help but think about “the faff” that Mr S told me was going on in theatre. Until this point, I had always been advised, like other visitors, to go and get a cup of tea or go with Mr S to talk further about his technique in between each op. When I asked to hang back and see them do the theatre set-up everyone seemed to think I was mad – “it’s really nothing impressive,” they would tell me.

But when they finally let me, I saw them transform a blood and germ-contaminated room into a sterile operating theatre in a matter of minutes. Once the patient has been taken through to the recovery ward, the many trays of scalpels, drill bits, and trial implants are counted to ensure none of the parts have been left in the body. Then they are taken to the autoclaves to be re-sterilised. Any clinical waste is removed and put into special yellow bins in a side room, whilst the metal tables which hold the instruments are sterilised with special wipes. Whichever nurse is helping the surgeon with the next op will scrub up, helmet and all, and another nurse will bring the new trays. Every tray has to be placed in the way they have learnt the surgeon wants it, and every tool has to be counted off the list in each tray to ensure it is there. Certain tools are removed from the box and put in a specific order on the table so that the surgeon has things as perfect as possible for the op itself. But the op is the main event, this fuff is just seen as the interval, the set change. The surgeons are only called in when the anaesthetised patient is being wheeled in from the adjacent room and the theatre staff are ready to attend to the surgeon to help them scrub up.

Before they get to washing their hands both surgeons have to put on the plastic shell of their helmet which loops round over their head creating an arch from the back of the head to a torch at the front. A fan sits at the back and a wire and battery pack dangle down the back. Once they've done a full anti-septic wash with several different liquids up to their elbows, the surgeons turn around and are presented with a sterile towel to dry their hands. Their handmaids will have already laid out two piles of various clothing wrapped up sterile, opposite the sink in the order they need to put them on. The surgeons are first presented with an under-gown, and their assistants then open each subsequent pack taking care to only touch the outside so that only the sterile surgeon touches the sterile item inside. Whilst the surgeon puts on a first, second, and third layer of gloves the nurse or theatre assistant comes around the back to tie the gown up. Then their handmaids must fix the plastic visor to the front of the helmet and pull the over-gown over their heads and down the front of the surgeon's body. Occasionally Mr S would then turn to me and ask me to hold a piece of cardboard attached to the gown's ties: "hold on until I tell you to pull". He would spin into the cords and then ask me to pull the cardboard away before he tied up the gown, grinning. It was meant to be a bit of a laugh, but it was also a way

of subjecting me to the position of handmaid. I watched the other surgeon able to tie his own gown, and somehow doubted Mr S would do this with a male colleague.

Another thing I quickly had to get the hang of was when Mr S tore the plastic off from the drapes as he was sticking them down to fit the patient. He threw the plastic out of the sterile area onto the floor by my feet and glanced at me with a cheeky smile. I picked it up and put it in the bin along with the other assistants in the theatre. The team was also meant to have some banter – and at the moment I was the strange newbie who was instrumental to the jokes.

Now ready for the operation, the WHO surgical checklist would be called out by a nurse and responded to in jest by the surgeons on duty:

“Does everyone know everyone else in the room?” – “oh, by the way Hannah, Lucy is a Virgo”

“And does anyone have any concerns?” – “I need a piss!” another surgeon jested.

The banter often continued into the operation – “The Beach Boys?! Who put this on?!” – or the surgeons might talk about the latest football game or Formula One race. But the tone of the conversation was always led by the surgeons’ discretion. The banter was the surgeon’s performance; the jokes and teasing never came from the scrub nurse or the theatre staff when the surgeon was in the room. I soon found this out for myself when I tried to banter back. Sometimes when Mr S put strips of plastic on the floor, he would show off a bit by taking his vibrantly striped socks out of his clog and use his toes to pick up the plastic. He’d swing round and lift his leg up to the clinical waste bin and ask me to open it so he could drop the plastic in. He did his trick, all whilst keeping his hands sterile for the op. “Just checking I can still do it” he said to me with a smile. “Or keeping your ego fuelled!” I joked back. Mr S didn’t laugh as I expected him to and after that Mr S never did it again. It was once a regular occurrence. I felt kind of bad, but at the same time I started to realise that the banter was only ever between surgeons or directed away from them. They are the performers – the theatre team, which included me, are the set.

In fact, when the operation works well, no one needs to talk unless the surgeon decides to start up a conversation. Everyone knows what to do through the rhythm of the op and watching the surgeon's moves. When a team works well, Mr S told me, it is "like a ballet". The pauses in conversation signify the moments the surgeon needs to concentrate. When the surgeon goes quiet or stops halfway through a sentence, it is because they need to focus on fitting the stem or the cup exactly to size. They only call out when they need a certain tray of bores, or a new needle to replace the one that got dropped on the floor. But even outside of these moments, when they are prepping the patient or when the op has finished, it is still a conversation led by the most important man in the room. The rest of the team tend to wind up their conversations as the surgeon walks in after the fuff, and they resume them again when they have left to their office, or to get a cup of tea.

Whilst the others in the team are clearly seen as essential by Mr S, they are also valued differently. The act of the surgeons entering the theatre and being dressed by their assistants is far more of a performance than when the scrub nurse needs help getting into their costume. The surgeon gets called in at the last possible minute to maximise their time doing paperwork or talking to visitors like myself. They get attended to in more theatrical ways. The set itself – the instrumentation, the tables, the patient, and (during the operation) even the theatre staff – has to be positioned in the way that suits the surgeon best – all these other actors are at his command. The "ballet" is orchestrated round a protagonist, and this protagonist is not allowed to fall from power. When the play is done, the porters appear spookily on time and take the patient away, allowing the surgeon to leave the stage. When Mr S leaves the room, the work is fuff, suggesting that this backstage-work is merely a waste of time – perhaps as it is a time when Mr S cannot perform. The "team" that Mr S talks so fondly of is clearly a team that is meant to have strict power structures, of which he is lead.

Other members of the team aren't even part of the ballet – front or backstage. Mr S would frequently complain that the physios aren't acting in strict accordance with the Rapid Recovery Programme that *he* created. There are still patients coming to him in his surgeries who suggest they are scared of dislocating their hip if they try to do too much, or the wrong kind of exercise.

But the whole idea of giving extensive precautions to patients was scrapped long ago – it’s better that patients feel at ease and are encouraged to increase movement. This is why they could “do away” with the occupational therapists who ensure that patients are going home from hospital with the right support. There is only really one occupational therapist left in the Fernwick Centre now and most of their work is done by physios. As we saw in the last chapter, they now focus largely on giving them objects, ensuring they have additional clinical equipment to take home, rather than visit and work with the home itself. Whilst Mr S clearly values the physios in his slides, it is only a certain type of physio-work – the kind that gets the patient up out of bed and walking as soon as possible, and usually stops at the point of discharge. The lack of control here frustrated Mr S, but his leadership still clearly has impact on The Fernwick Way.

The “team” rhetoric almost always came from the surgeon, the most important man in the room, and rarely came from the other members. As I started hanging back in between ops I sometimes got the opportunity to talk to the theatre staff properly: “Oh you get used to them,” they’d say. “One surgeon used to ask me to get something and then go ‘off you trot!’ That used to really wind me up”; “You just have to treat them like spoilt little children because that’s what they are... that’s what they are!”; “It’s *more* of a team here than other places I’ve been...”. Many of these lines seemed as if they were justifying the situation; “the surgeons are *better* here,” they’d say. When people fell out of role, I heard grumbles from porters, physios, and the theatre team alike about something the surgeon said or his arrogance in the room. Despite these backstage grievances, the theatre team is still led by the richest man in the room, and most of the time, people follow.

These power structures, however, are only one way of seeing, or cutting, the world. Through flattening these hierarchies, I would suggest that the surgeon’s performance could never happen without the faff that happens in the intervals – this is important work. If the theatre space isn’t sterile, the tools aren’t in their place, and the patient hasn’t been calmed and anaesthetised, then the ballet would go seriously wrong. We have already seen in the previous chapter how taking certain labour practices away – like those of the occupational therapist who could actually go and assess the home – have caused major problems in who gets what kind of care. In who gets to have someone there to help them

learn to do the stairs again, and who has to live downstairs in their two-storey house for the foreseeable future. The surgeon's work is only held up as more important because of the long-held practices of gaining prestige – of setting themselves apart in a field distinct from others with titles and trinkets. The more these resulting labour hierarchies are envisaged, the more they get practiced and have real effect on the relations between people, legitimising the relations acted out in this ballet. The everyday practices then boomerang back into constituting envisaged or imagined hierarchies of labour. The relations between actors created through the rules on talk, banter, and action also make the surgeon seem like he is the most important man in the room. Imaginaries and practice co-constitute each other.

Importantly, there are other teams which relate on more equal grounds, but these exclude the nurses, and technicians in the operating theatre. At conferences I would see impenetrable circles of men using private in-jokes to exclude others, whilst confirming the friendship of those involved. Even though there are surgeons who are more senior, it is actually possible for younger surgeons to one day become their equal, in a way that other theatre staff can never hope to be. They are competing in the same assemblage. The very fact that there are “rites of passage” for medical students, suggests that there is a route to greatness. A younger surgeon who presented at a meeting of the British Hip Society, illustrated these potential routes and connections well. He had already begun on this line of flight by gaining a Fellowship to The States where they “got treated like kings”. He and the other participants (“Seriously, you end up becoming best mates with these guys”) got picked up in supercars and were able to sit in the drivers’ seat and take them back to their expensive hotels. The young surgeon’s talk on clinical advances in the US were hereafter interspersed with images of him eating ginormous steaks and drinking beers “with the guys”. The social and team building aspects of this international exchange were clearly valued by all. And whilst there was a lot of awe, and a “looking up to” the more famous, experienced surgeons in his talk - “did you really meet Mr O?!” – the act of inviting someone to spend social time and treating them like kings made it clear they were on a more equal playing ground than a theatre nurse, physio or an occupational therapist.

As might be expected, these insider-outsider groupings have a historical trajectory. One surgeon described the “tribal knowledge” a surgeon gains from their predecessors – there is still a friendly rivalry between those who come from a tradition of using the Charnley stem, and the Charnley-Müller stem. As mentioned in Chapter 2, Charnley even formalised his group as the “Low Friction Society”, to ensure all the people he had trained and thought were good enough to carry out the hip surgery he had invented, could stay connected as a team. Charnley’s wife did a lot of the secretary work and ensured all the members received their ties and certificates, as well as keeping up with correspondence about scientific advancements and their family’s children. The conflation of the social and the scientific in the letters which have been collated in Charnley’s memoirs reemphasise the importance of maintaining the team, maintaining the social and material relations between like-minded, and purportedly equal-minded men, their embossed ties, and their certificates (Charnley, 1973, 1975). The inaugural lunch was held by the lake in the Charnley’s garden, where they had many more parties over the years. Stories of people getting drunk and merry, families being welcomed, and Charnley sitting at the kitchen table eating caviar by the spoonful, litter his memoirs (Raine, 2016). Meanwhile, the family’s housekeeper and her husband would wait on the parties and do the washing up (Hanson, 2016).

The High Moor was where they had all The Low Friction Society dinners, and I was explicitly told it was the only place they ever took the Americans when they came to visit. It is an old inn, a short drive from the hospital. Paul drove me there the evening I arrived up in Wrightington as a surprise. He wanted to show me where all the important social events took place. It was the middle of winter and it was dark, cold, and wet outside. But inside the High Moor it was warm. There were dark oak low-beamed ceilings and soft tweed furnishings, reminiscent of the Jane Austen-period that American television programmes always seem to imagine of the English. The whole place feels a bit old fashioned now, but it still holds the grandeur of old English tradition. Sitting in the drinks reception whilst they prepared our table, Paul told me about the parties he attended when Lady Charnley was still around to tell the stories. The Americans would laugh at the Old Spotted Dick pudding and the drinks tab alone could reach thousands of pounds. One American got so drunk that he toasted Charnley for helping him make his first million back in the US. Wives also

attended the dinners and Pat later told me how flirtatious the Americans would be. However, Maureen only seemed to attend the dinners more recently, after Charnley's death, where people like Paul became more interested in his history. It was clear that the in-crowd was always the surgeons and their wives. Not those who work in the theatre with them all day, the housekeeper who ran the garden parties, or Harry Craven, the engineer Charnley employed who helped him invent the successful new hip (see Chapter 2).

There are sometimes more equal relationships between the surgeons and those working to improve the medical technology. Hugh Howarth, who worked with John Charnley to improve the sterility of the operating environment, suggested that they were "a perfect pair of people with different disciplines, each stimulated by the other." Howarth had the engineering mindset from his business in air conditioning in the brewing industry, and the other had the experience of surgery to help adapt this knowledge. Howarth who turned up in his Jaguar seemed to feel part of a team. Craven, on the other hand, who was directly employed by Charnley after his work in a local factory, had to threaten to quit in order to stop Charnley shouting down at him (Craven, 2016, n.d). As health-tech companies have grown more corporate over the years, they have taken on the materialities of Howarth and his Jag - taking surgeons out for dinner or flying them on holiday to places to see a particular surgeon using their kit. Whilst surgeons told me these kinds of bribes are becoming less common due to the politics involved, I still saw champagne receptions to get people watching a presentation on a new set of implants, and people being flown to The States to watch surgery. There are also possibilities for surgeons to carry out 'clinical trials' for new hip implants that their hospital management can't afford - (these inverted commas were those actioned to the words by both theatre managers and company reps alike). And I was always struck at how often surgeons listened to the (usually female) company reps about how to use the instrumentation to carry out their surgery. This is perhaps not so much because of the knowledge - Craven's knowledge was invaluable to Charnley's success - but because the tech industry assembles and associates with similar wages, similar materialities, similar tastes to those of surgeons.

To a social scientist thrown in the deep end of the operating theatre, these particular kinds of insider-outsider relationships seem fairly antiquated, where

power relationships and the knowledge which is valued are so clearly separated by class and wealth. When visiting conferences and hearing about The Low Friction Society, it feels little has changed since Sinclair (1997) followed the medical students' drinking club in the 1990s; he described how broad shouldered men stood in a circle in the middle of a bar racing to see who could finish their pint first – their bodies posing barriers for who was inside and outside the club. Indeed when I asked Mr S why he thought most surgeons came from more privileged backgrounds he suggested it was like “natural selection”; his housekeeper, for example, (don't worry though they “give her a pension and everything”) “doesn't even read books to her own children,” whereas his father had been a surgeon, and his grandfather had been a GP and so his parents put effort into his education. To Mr S, this wasn't problematic; this logic justified his position. He was brought up to be a surgeon and his housekeeper was brought up to look after his children, not her own.

However, unlike Sinclair's analysis, I argue, that similarly to the production of prestige, the classed boundaries that separate surgeons from the rest of the team in theatre are produced through everyday practices. The assemblage of surgeons, fast cars, champagne and caviar is often maintained in spaces physically distant from those who sterilise the instruments. Unlike Maureen and Harry Craven, the relationships amongst surgeons, their families, and the tech industry are allowed to transcend from work into the social – building shared experiences and shared tastes. Housekeepers are allowed into the homes and gardens but only as childcare and washer-uppers – their distance is maintained through the kinds of activities they are allowed to practice in these spaces. A surgeon never has to think about where he gets his tea from. It is always there, on tap, from any number of his team that he can ask. Other teams with other surgeons at conferences get their tea served by smartly dressed waiters. As Candea (2010) suggests, creating distance takes work. The work that goes into becoming distinguished, into getting the resources valued by others in the field, distances people like Mr S or Charnley.

Crucially, this means it is not just that people like Maureen and the theatre assistants in the Fernwick Centre are excluded from the champagne and caviar parties. It is that the surgeons and sales reps are excluded from the more everyday activities of those outside of their circle. Even if it had been Mr S under

the knife, he told me he would be going home to a spacious house in the country, surrounded by a wife and kids, and the housekeeper he employs. Surrounded by friends and family, it is no wonder that, as explained in the previous chapter, there is an assumption in the patients' bible that they will also be surrounded by friends and family. And a surgeon certainly doesn't have to think about where they're going to get their tea from. Maureen told me of how the nurses would peer into the operating theatre, trying to work out when Charnley was almost finished demonstrating his operation to his American visitors. They would wait, primed, ready to make them all a cup of tea for when they were done. Again, not much seems to have changed here. When I first went in to watch one of Mr S' clinics, he thought it would be fun to joke with me. He asked if I would like a cup of tea. Yes, I would, thanks. "Well the girls will get us a drink soon, it's not worth paying me five times as much to go and do it..." He looked at me as if looking for a reaction (which he got). "Well it's not is it?!" he teased. The only time he actually made me a cup of tea was when I teased back: "I'm starting to think you don't actually know how to make a cuppa tea!" It was a challenge he was willing to accept – but that was all it was, a challenge. The social lives of surgeons are barriered off from those who have to make their own tea.

An important thing to emphasise once again, is that I am seeing these markets as fields, or niches, not hierarchies. The rest of the labour in theatre is also valuable, if one is allowed to hang around in the intervals. Hip replacements also require sterile environments and someone to make the patient a cup of tea. These things become more or less valuable depending on the time and place – whether it is available or not. Skiing, fancy food, Pilates classes, hotel-like convalescence homes – none of these things have to be expensive of course, they are only given more value because they are associated together in a field with labour that is given a higher value. But the way in which these divisions of labour get imagined as hierarchies has a real effect on the world; the hierarchies get practiced. Skiing, caviar, these other nodes, still exist in a world with box freezers, housekeepers, and narrow staircases – they are still closely related in an assemblage, but the relation is different. The work of attaching more value to some things, some forms of labour more than others is done through cutting these higher value things from the lower value things. The work of making this distance produces a repelling force that results in patients like Bet and Janet

having fewer resources, with little effort to rectify the situation. The practice and upkeep of a hierarchy of labour, means there is a very real hierarchy of resources amongst patients who get treated in such an assemblage.

God as man

During the coffee break of the British Hip Society conference, I asked the female registrar who was sat next to me what it was like working in such a male-dominant environment. I immediately realised it was a mistake to ask this question whilst we were currently surrounded by groups of suited male orthopaedic surgeons laughing, joking, and reacquainting themselves with old friends. She looked around her to see if anyone was looking, "it's got its ups and downs" she said under her breath, as if to make sure no one could hear. I quickly realised I shouldn't have asked.

The one time I met a female surgeon

I was chatting to a couple of assistants in theatre before the surgeons made their entrance. We were talking about the latest sex scandal on the news – an MP had just resigned as he had been accused of acting inappropriately with a female employee. He made an advance on her by putting his hand on her leg, and the media were all debating if this was serious enough to be called sexual assault. Some of the assistants started talking about their own experiences where they had been touched inappropriately in ways that were, by some, being talking about as minor, like touching a thigh. One of the women was explaining how shocked and unsettled she was after a particular incident. Everyone was experiencing the disbelief together, sympathising and being open about shared experiences - well it's like Kevin spacey isn't it? - but they swiftly ended the conversation as the surgeons came in –

There was a pause whilst the surgeons prepared the patient, and a nurse called the safety checklist. Mr S made the first committed incision through the skin.

“Kevin Spacey shot himself in the foot, didn’t he?!” he spoke primarily to the resident surgeon and the anaesthetist.

“Yeah he should have just said no that’s never something I’d associate myself with. I mean why did he have to come out as gay at the same time?” The resident surgeon was sure of his opinion. “I don’t know why all these people feel the need to come out all the time.”

I was a little surprised as I had assumed the resident surgeon was the younger and therefore more liberal of the two. I also felt a little defensive, knowing they were about to embark on a conversation about something very personal to me.

“Well maybe they do it to normalise it and support others to feel more comfortable,” I couldn’t help feeling thankful for Mr S’ response whilst I stood there silently.

“Oh yeah I didn’t think about that. But it’s like, there’d be an outrage if you had a straight Pride... you know... like it’s pretty much equal now...”

The conversation descended into a discussion about whether gay people had equal rights or not and frustratingly the drill started to cut through the femur so I couldn’t quite hear how it ended up.

Nevertheless, what struck me about this conversation was how it excluded anyone else’s experience in the room. Of course, they weren’t to know that I would feel isolated by people talking gay rights with me standing right behind them, but neither was I, or anyone else, included in the conversation. Rather, the conversation had slipped from a conversation about abuse, which was clearly relevant to many people in the room, into one of their own inexperienced prejudices. At this point Mr S turned to me and asked what else I wanted to know, only now inviting me to speak.

I nervously went for the juggernaut: “Why are there fewer female surgeons than men? Especially in orthopaedics?”

He hesitated. “Well that’s an interesting question because there’s nothing holding them back.” Mr S was gradually cutting through various layers of fat, muscle, and flesh. “It’s not like we’re telling them to go away, in fact if a woman wants to be a surgeon, she gets extra help. But then there are some women I know – well there are some women who are brilliant, but there are others who just don’t have the aptitude for the job.”

“What do you mean by aptitude?” I had heard this word come up before.

Mr S continued as he began to tie knots with the thread that he had sewn into the flesh to stop the bleeding. “Well, it’s like they don’t get into the rhythm, you know eventually you set a sort of pace and it comes almost naturally. Or it’s like they don’t have the right the technique. He paused for thought... But obviously that’s the same for men too.”

I didn’t respond as he still seemed to be thinking.

“I don’t know, what do you think Greg?” He asked the resident surgeon, but rather than waiting for a response he continued himself. “Because there are more female doctors now, I think, but I wonder if surgery is just a different mindset. Like no matter what way you look at it, there is a difference between boys and girls.”

“Well yeah, my children were brought up exactly the same, but my daughter just loves pink and girly stuff,” Greg contributed, “and I didn’t do anything to tell her that!”

The surgeons then went into conversation about their children and how they’ve adopted different stereotypes of male and female. But none of it was down to the way they, or anyone else, had brought them up. It was a matter of instinct.

“I had my hernia done by a female doctor who I think is one of the best surgeons I’ve ever worked with.” Mr S came out of the conversation with Greg and directed his voice back to me.

There she was - a save-the-bell woman to justify Mr S' previous points. But this 'I have a friend who's black so I'm not racist' moment, automatically paints the one female surgeon as an anomaly - a particularly talented woman who has the aptitude to do surgery to the same, or perhaps even a better, standard than the men. Another attempt at introducing women into the world of surgery was held at the BOA conference when they invited Mandy Hickson, a female fast-jet RAF pilot, to give the Howard Steel lecture - a talk which must not be directly about orthopaedics but has themes from which they can learn. As her online profile highlights, "She was only the second woman to fly a Tornado GR4 on the front line, completing three tours of duty and forty-five missions over Iraq" (Hickson Limited, 2019). "She's in a man's world even more so than female orthopaedic surgeons," the President joked as he introduced her. Her speech was incredibly engaging; she talked about her determination to be a pilot and the close maneuverers she had to learn between mountains and buildings alike. I didn't see one person leave the hall for the duration. Everyone was poised for the climax - "and I was carrying enough missiles to blow up Belfast!" She smiled as she continued the story of her dropping her first missile. Mandy Hickson is a woman who is valued by men because war and planes make up her actor-world. She is valued as one of the super-anomalies who take on the hyper-masculinities usually expected of men in situations like the BOA conference.

Women without these hyper-masculinities are also valued, but only in particular ways which keep them in certain places. In *Memories of a Knight and his Lady*, Charnley's wife is made explicit in the title and in one of the many preludes. Paul, the editor, recounts the old saying "Behind every great man is a great woman." Underneath he then lists the wives of great men, such as Eleanor Roosevelt, and Coretta Scott King alongside Lady Charnley as if all these women have something in common other than the fact their husbands were famous. Throughout the book people praise Lady Charnley for making everyone feel so welcome and for being an excellent hostess. She would look after the children, hold other women's babies for some time so they could have a little fun, and ensure she kept up to date with the progress of Charnley's colleagues' children. These are valuable activities, but the problem is that the woman is always behind the man, hidden away from the spotlight in the private realm. Doing the day-to-day whilst the male Charnley does the great technical inventions and wins public accolades. Women are there to help the men - just like Mr S can't

do without the scrub nurse. Indeed, our many conversations about women and class prompted Mr S to tell me one day: “It’s like you’re an angel who’s come from heaven to make me a better person”. Like my sole, saintly, purpose in my PhD research is to make Mr S a better person. By asking questions about the social side of the NHS, I had become an angel, who had brought social questions into the emotionally detached area of the operating theatre. But bringing more feminised people and objects, as well as these other forms of activity, of labour, into the wrong places was not always so easy.

“Can you get Letty?” Mr S asked one of the theatre assistants as he wanted to ask her about the next operation – “she’s probably off painting her nails.... Or dying her hair!” He joked as the theatre assistant left the room.

Letty came into the theatre a few minutes later, and after talking the necessities, Mr S asked her about the football on Saturday – it was clearly an ongoing bit of friendly rivalry between them. They were both going to the game to support opposing teams. He asked for her number so he could tease her about Tottenham’s ‘inevitable win’.

“Is Gary coming with you?” He asked after her husband.

“Oh no he doesn’t come to the football, it’s just me and my daughter who go,” she replied off-hand.

His first response: “Is he gay?” He whispered it loudly in a pretend-secret aside.

“No!” She looked a little taken aback, unsure of how to respond. But Mr S carried on unaware he was the only one in the room laughing.

“Ah he just stays at home knitting whilst you’re off to the football. Something’s gone very wrong there...” he laughed. She rolled her eyes and left the theatre shortly after.

Here Mr S clearly associates football with masculinity and himself and knitting with femininity and the ‘other’. Still further, this ‘other’ was mocked as pathetic and feminine. But the irony of the situation was that whilst Mr S was teasing

and emasculating the assistant's husband by suggesting he did knitting, Mr S was sewing up a patient. Just as in knitting, he was tying knots in the thread which was connecting one material to another. It is as integral to life to keep the flesh together, as it is to keep the body warm through clothing. Both attend to life and death situations, using similar skills, but Mr S' knitting is not mocked as soft or pathetic. Where work which has largely been given to unpaid women in the home, or despicably low paid women in factories abroad, is mocked. The main differences between these two forms of labour is the other people and things they are assembled with: Surgery and men with going out and watching sport; knitting with the home and homosexuality.

These feminised forms of labour are especially mocked when, like Letty's husband, they are seen as out of place in the assemblage.. The occasional, extraordinary woman like Mary Hickson, or Mr S' hernia surgeon, is seen as a celebrated novelty if they are out of place because they have taken on things like planes, surgery, and war into their bodies. But having forms of labour that have historically been feminised and refined to the home come into the public hospital is another thing entirely. This is perhaps why the UK media have always mocked ideas of a 'nanny state': feminised forms of labour that should be confined to the home are intruding on the masculinised public. Where care practices aimed at patients or their homes are allowed to be associated with the public hospital, it is delivered by separate staff, nurses and healthcare assistants with lower pay. Rather than see making someone a cup of tea, helping them learn how to walk up stairs, and making them feel safe as valuable skills, staff doing these roles are hired using "values-based recruitment" (Health Education England, 2019). They are seen as innate, almost animalistic instincts. As a result, these practices have to get learnt through unpaid experiences, where people learn how to care in the home around family and friends.

Where there is still such nervousness about crossing these public-private, masculinised-feminised lines, we can perhaps understand why the occupational therapist, whose job it is to traverse the boundary between the public hospital and the private home, is seen as unnecessary. And why it was difficult for some of the patients to get help or understanding with their living situations at home, or to have their home cared for. As any feminist will know, the private, the personal, is political. The fact that Bet went *home* without the

care she needed, is political, and is of interest to the public sphere. As stated in the previous chapter, there are patients that told me that all they needed when they came home from surgery was for someone to be there in case they fell, and to make them a cup of tea. When this is missing, this form of labour suddenly becomes very valuable - just as valuable as the surgeon's labour that they experienced a few days before. What I have illustrated here is not just a casual bit of sexism. The casual gendered jokes and comments come to maintain the illusion that there is a hierarchy between these forms of labour. In turn, this imagined hierarchy, between masculinised and feminised labour, has real effects on the world. It means that the more that surgeons distance themselves and their position of power from more historically feminised labour practices, the more these practices are pushed into a different field with different value labels. It therefore has real effects on the kind of care practices and the kind of labour that is available to patients on the NHS.

Maintaining tough empathy

"So do you think I'm cocky?" Mr S looked at me over his shoulder with a glint in his eye.

"Erm I guess you're very confident... at least on the outside, who knows about the inside." I replied. He smiled as he swung his chair back round towards his desk.

"Well I think you have to be confident in the job I do. You know, you've got to be confident that you're going to do a good job. If you're not, then you shouldn't be doing it."

Another time I tried to banter back with Mr S

In the last three sections I have illustrated how surgeons strive to become as god-like as John Charnley through gaining and maintaining the materialities of prestige, upper class social status, and masculinity. I have illustrated that these are not just some social categories, formed by hierarchical human relationships.

The pursuit of these things is about collating with niches of material objects, and incorporating them into the actor-worlds of surgeons. When a surgeon is operating in a theatre, he brings with him the fast cars, caviar, and homes that someone else has always looked after. Importantly, assemblaged relations here are not just between things within the same physical space, but can span through hospital walls, across borders, and even through time, to bring fast cars from America and caviar from Charnley's memoirs into the operating theatre. And bringing such a concentration of these things into the operating theatre, into the Fernwick Centre, through the relations of the surgeons' actor-world, also pushes away other kinds of people, things, and practices – which problematically, are those of more vulnerable patients.

The desire for surgeons to be distinguished not only means they must extricate themselves from others, they must also focus on making distinguishing objects of art; model patients with trademark hips to march up and down in front of an iPhone camera. In doing so, it is mainly these model patients which can join the niche, be part of the world of the surgeon. There are also important boundaries to be maintained through the making of teams. In theatre the surgeon works to maintain his role as the protagonist in his ballet, a team led by the richest man in the room. Meanwhile, surgeons from tribes like the Low Friction Society drive supercars, wine and dine in posh restaurants, and wear matching ties. These team-making practices create material classed boundaries between the lives of surgeons and the lives of patients or colleagues which have less wealthy households to return home to. Surgeons are further separated from the home, the private sphere, through the reification of masculinised and feminised forms of labour that are traditionally separated between the home (which has been feminised) and the public sphere (which has traditionally been made a place for men). Whilst these forms of practice are only given this value through associations with other people and things, they are not only distanced from each other, but feminised labour is distanced from power.

In the last part of the chapter I problematise a common trope which I argue is pieced together by the relations between prestige, wealth, and masculinity. This common trope is namely that surgeons need to maintain distance from patients because they have such a high level of responsibility over their life and death. As described in Chapter 3, this concept has been described in various ways:

“detached concern” (Lief and Fox, 1963; Underman and Hirshfield, 2016), “affective neutrality” (Smith and Kleinman, 1989), and by surgeons in my fieldwork as “tough empathy”. Where authors have often maintained at least some support for this attitude as necessary (Prentice, 2013; Sinclair, 1997), I argue that it is merely a manifestation of the classed and gendered forms of distance I have described in this chapter. I suggest that it is pieced together from the tastes for particular forms of labour, particular types of food, particular ways of practicing family and home-life, and particular ways to relate to or rather distinguish oneself from other people and things in the field. As a result, I suggest that tough empathy comes to cause the classed inequalities described in the previous chapter.

Mr S told me that he couldn’t get too emotionally close to his patients because otherwise he’d be worrying every time he opened someone up. It just wouldn’t be good for the operation to be worrying about whether every patient was the 0.001% who might end up with an infection or (fingers crossed it hasn’t happened yet) ending up dead or immobile. He told me how it breaks his heart every time he breaks a ligament he shouldn’t have done. The barrier he has to put up sounded very much like the tough empathy I heard them talk about at conferences: “you don’t want to get to the point where you completely dwell so much on your own mistakes, or your own pity, that you can’t get out of it. You need to be able to pull out of it.” The idea that emotional connection results in self-pity, and is something that needs to be pulled out from and cut off of reminded me of the stiff upper lip mantra that has also been associated with classed and masculinised narratives (Beynon, 2002).

In order to ensure that patients are still happy despite the conservative approach, Mr S prides himself on being a good communicator – because of this he is able to keep his distance whilst still ensuring patients are comfortable. He took me to go and put arrows on the pre-op patients’ legs to show me what he meant. After he took a black marker from his desk, I followed Mr S to a whiteboard where he could see the patient name, room number, and which operation they were about to have. We went to the first room, knocked, and walked in to find a patient and his wife.

“Hello Mr Harris, how are you feeling? This is Hannah who is shadowing me today, is that okay? Is this your wife?”

“Yes of course – yes this is my wife, she’s here to wait with me!”

“Hello. I just wanted to come in to say that I’m confident that everything is going to go well, and I’ll be very delicate,” He half joked with a smile. “I just need to put a cross on your right leg – can I just confirm it’s a right hip replacement you’ve come in for today?”

Mr and Mrs Harris didn’t talk much but I could tell they were comforted and relieved to see him. Mr S went and put a cross on Mr Harris’ leg and asked them if they had any concerns, of which there were none.

As we went to see the next couple of patients, I realised Mr S had exactly the same script for each one. He’d look at the name on the door and recite it as soon as he stepped into the room. The only time the script differed was when I recognised one of the patients from a previous site visit. I had been there when she was recovering from her first hip replacement. She was expecting a to have both hips done at the same time but woke up with only one because Mr S was nervous about the condition of the bones in her first hip. He wanted to wait for it to heal before doing the other one. I then saw her in her consultation, and was now about to see her for the third time just before her second op.

“Hello Mrs Fairfax, how are you today? Is this your husband?” Mr S began his script.

“Hello – oh hello again! You’re everywhere I go!” Mrs Fairfax looked over to me laughing a little.

“Hello again, yeah I saw you for your first hip didn’t I...” I acknowledged, smiling.

“Well that’s great – so you’ll see my operation this time?!” As Mrs Fairfax chatted, I could see Mr S look over to me and back at Mrs Fairfax with a moment of comprehension.

“Yes, let me see how your scar is healing,” Mr S walked over to look at her scar.

“Yes, it’s healing really well,” he assured her.

“Yes, it’s been wonderful! It just feels like a normal hip again – like you’d never know the pain was there!” Mrs Fairfax had a big smile, though still with a hint of nervousness. “Thank you so much for doing this for me, you’re amazing.”

“Well I have no reason to believe this hip won’t work just as well and I’m confident that your operation will go smoothly today,” Mr S continued.

As we walked back to the theatre Mr S asked me why he didn’t just do the bilateral hip replacement in the end. I reminded him that it was too arthritic once he got inside the first one and she had to be partial weight bearing (meaning she couldn’t put all her weight on the operated leg for six weeks). “Ah yeah okay...” he responded, trying, but failing, to remember. I asked him how often he did remember his patients – seeing as he does hundreds a year it must be hard.

“I don’t remember any of them.” He told me immediately, without hesitation. That’s why he says the same to everyone.

“I knew it”! I teased. “Because they all seem to know you and talk to you almost like a friend – some of them actually refer to you like one up on the ward.”

“Oh well yeah, most patients like to be remembered, they see it as an honour, they all want to be your friend.” He smiled.

A few hours later I saw him forget a patient again. We went to go and see the patients he had operated on so far that day (I had a feeling this part of the day was put in especially for my audience as I hadn’t seen him do it before). There was a confusion and a panic in his stride as he thought he’d lost a patient in transfer from the recovery room to the main ward upstairs. I was sure I had seen her in the recovery room as we’d walked past but he was sure the nurse manning it had told him it wasn’t his patient. We went to the room she was meant to be in and only found her husband waiting for her: “I think your wife is just on her way up,” he told him. But as soon as we left the room he started

panicking - we swept back into the recovery room and low and behold it was his patient, the same face he'd spoken to when he drew that big black cross on her thigh a few hours earlier. He immediately switched gear and went into his act: "How are you feeling - I was very pleased with how your operation went. You should have a good recovery - see if you can sit up for your breakfast in the morning..."

Rather comedically, the tough empathy practiced by Mr S literally led to him losing his patients in the hospital. When caring for patients, both in and outside of theatre, becomes an act, a ballet, or a play, the patient can very quickly get displaced. And they get displaced because, to a surgeon, patients are seen without place, without the rest of the assemblage around them. As explained in Chapter 3, a patient is another body; a body to be scripted to like everybody else. But in seeing patients out of place, without the other people and things around them, the surgeon assumes that patients can get on with things like model patients with trademark hips. He doesn't have to see their private place with no freezer, no help, no cup of tea. Rather, the surgeon is wrapped up in an assemblage where he hopes to gain prestige, go home to his family without the social ties to the patient, and to retain an emotional distance which doesn't require him to care for the patients' home once they leave the operating room.

"But surely surgeons need to protect themselves if they're having to deal with the stress of operating on people every day? It's life and death," Friends and colleagues kept pushing me when I was trying to explain my issue with ideas of detached concern. And I agree, everyone needs to protect themselves. But there are other ways of doing it. Nurses, physios, and healthcare assistants are expected to be compassionate as part of their job - it is a part of their labour. And they also have to deal with life and death situations. If they aren't careful with catheters and cannulas, they could cause an infection. If they aren't careful on the drug rounds, they could leave the patient with blood clots. And if they aren't careful with helping patients move safely, they could fall. Many of these practices require staff to move beyond the idea of a skin bound body; just one day in a ward and one will realise how many orifices and body fluids are dealt with on a day-to-day basis. And yes, I heard some lines or jokes repeated to patients, which had become routine. But staff would also remember the patients if they came back a few hours later, the next day, or even when a patient

came back a couple of years later for another op. If there are other staff groups which can manage these jobs without losing patients, then there must be other ways.

If there's any role in healthcare that is potentially more mentally disturbing than surgeons working in the toughest environments, it's got to be psychotherapists. They tend to protect themselves through processing emotions rather than blocking them off. They will have professional groups where they reflect on their patients and how it affects them. In order to be qualified as a psychotherapist in the first place, they have to go through their own therapy. Projects have recently emerged which are starting to encourage surgeons to think about emotion in this way (Brown, 2015, 2017; Arnold-Forster, 2017; Arnold-Forster and Moulds, 2018). They argue that high suicide rates amongst surgeons are because of the lack of engagement with emotion and are trying to look historically to understand how and when this attachment with emotional detachment formed. I'm sure psychotherapists would be unsurprised to find that suicides are so high amongst surgeons once they were aware of all this acting – in and out of the theatre. The fragility of their egos every time I tried to banter back actually became worrying to me. It seems, therefore, that abandoning the idea of detached concern may help surgeons as well as the patients they are treating.

In this chapter I have argued that the inequalities in the delivery of care that I illustrated in the previous chapter are in part produced through the pursuit of prestige, upper class status, and masculinity. Whilst I have shown these relate to older accounts of a medical habitus, I have illustrated how these are socio-material niches, which are formed through everyday practices, and the incorporation of certain people and things into one another's actor-worlds. The kinds of markets that are made through the drive to gain these forms of capital actively push patients like Bet and Janet out. Assemblages of NHS actors, inside and outside the hospital, get cut into fields, where things such as titles, trinkets, crested ties, caviar, champagne, sports cars, and surgeons all get associated with one another. Sterilising theatre instruments, box freezers, narrow staircases, and the actual making of a cup of tea get pushed away. The way in which boundaries are drawn around fields through team making and gendered associations causes other forms of capital to get repelled. This kind of distance-

making, or detachment doesn't just happen or exist of its own accord, it takes work (Candea, 2010).

Where Bourdieu (2010) showed that high and low art was actually to do with tastes, here I have shown that high paid and low paid jobs, masculinised and feminised labour, are also given more or less value because of tastes. The surgeon could never operate on a patient without the team sterilising the theatre in the interval, or looking after patients for 2.7 days after their operation. Friends and family, if they're around, take on the rest of the labour after the 2.7 days. Jobs like occupational therapy get removed because the surgeons themselves aren't interested in the private homes of patients: this is a place of feminised labour that doesn't belong in the public hospital. At its most extreme, labour such as making clothes gets devalued – even when surgeons are practicing similar skills themselves. The hierarchies between different forms of labour are imagined. But at the same time, they are made real through practices, through getting associated with different people and things that are given value in the assemblage. Tough empathy, or detached concern, works to maintain distance from these other forms of capital – or other tastes. As I have illustrated by flattening these hierarchies of taste, the relationship between these different forms of labour and capital could be imagined (and therefore practiced) more equally. Indeed, in Chapter 8, I illustrate some of the sparser practices which attempt to do just this. As already suggested, practice and imagination co-produce one another. With a little more imagination, and a little more practice which works to flatten these hierarchies, the value of different roles – from cleaners, to surgeons; from occupational therapists to family members at home – and associated things – from cups of tea to caviar; from freezers to fast cars – would be levelled and the relations more equally distributed.

But for now, in the NHS, labour practices get imagined and then practiced as classed and gendered hierarchies. These imagined hierarchies have real effect. Because surgeons, nuclear families, and spacious homes dominate, they are what care in the NHS gets modelled on. This is why the bible that is given to patients assumes they will have a big family at home, and assumes they will have a big freezer and money to spend on a new upright chair, let alone the grabbers and the pound a mile taxi home. The more surgeons can maintain their

role in the theatre, the more particular forms of labour are valued. Meanwhile, the forms of labour that patients like Bet and Janet really need, are taken away. Model patients with trademark hips, however, can compete in the world that has been made for hip replacement patients in the NHS. They also have money, a big family around them, and some know-how and confidence of how to act in the situation they are put in. People don't just fall off the conveyer belt because of neoliberalism: these class differentials really are nothing new. People are pushed off the conveyer belt because the NHS gets practiced as a classed and gendered hierarchy. The conveyer belt was built on this tilt of staff hierarchies ever since its creation in 1948.

7 | DATA IS KING

“The problem is when the surgeons start tinkering”

Research orthopaedic nurse, London.

It was the British Hip Society’s Scientific Meeting and a surgeon was urging his colleagues to defend their profession against the future of health policy in the UK. “Data is king!” he underlined to the audience as he warned the attendees against the dangers of politicians taking more control of their operations. “Some of the work the Department of Health do is good but beware of being told what to do. They can’t just tell us what equipment we can use based on price; we must look at the National Joint Registry (NJR) data to determine this scientifically.” Much to my surprise, he brought up a slide with a picture of Karl Marx and one of his classic quotes about how those who don’t own the means of production are exploited. “So, are we, as surgeons, going to be used? As a workforce being *used* for our labour? Or do we ensure we are the ones who own the means of production?” he challenged the audience. “It’s important that we as physicians understand the economics behind this so we can innovate and own the process”.

Owning the means of production for this surgeon is simultaneously about having control over the interpretation of data, and thus their own work-as-craft. When I first met Mr S, he also wanted to show me how successful his work was. As well as playing me the videos of model patients on his iPhone, he also wanted to show me the data. In a break in the middle of a day of consultations, he pulled up some slides with a set of graphs and tables from the NJR data set. One of the graphs showed how many total hip replacements every surgeon in the country delivered each year. He pointed to his column on the graph. It was anonymised but he knew which one was his. He was right near the top, performing hundreds of ops each year. Another surgeon in his unit had already warned me that when surgeons talk numbers, they’re really boasting about how much money they’ve

earned that year²¹. But Mr S insisted he was a man of perfection – unlike other surgeons who also did knees, shoulders, and ankles, Mr S limited his work solely to hips so he could focus on making them the best he could. He showed me in numerical form how he had refined his technique over the years, reduced his infection and complications rate to almost zero, and reduced the average length of stay after the operation.

By many accounts not a lot has changed since Charnley had his big breakthrough in the 1960s (Knight, Aujla and Biswas, 2011; Hughes, 2012). Modern-day hip replacements came about due to the close following of data from Charnley and his “attack on the last half percent” to bring down infection rates (Charnley, 2016, see also Reynolds and Tansey, 2007; Hughes, 2016). A manufacturing representative at the British Orthopaedic Association conference explained to me that all the “low hanging fruit” with hip replacements have already been picked so now surgeons are tinkering with different techniques, materials, and processes. Surgeons like the one presenting at the British Hip Society’s Scientific Meeting, are still determined to make those incremental changes to ensure patients receive the absolute best healthcare possible. They are determined that progress can still be made. Since Charnley, research has led to improvements in, for example, the durability of the materials used, and the quality of the bond between object and organism (Harris, 2009; Knight, Aujla and Biswas, 2011). As a result, younger patients can now be operated on where before their operations were delayed, because there is now hope their prosthetic hips may survive until their host dies. Helping source all this data is the NJR: the first attempt to track almost every hip prosthesis put into the human body. Set up in 2002, this particular data set is seen as revolutionary in the healthcare system due to the centralisation of information into one data set.

Hospital managers at every hospital I went to are also working on improvements outside of the skin; keeping their hospital stay rates down and their “would you recommend friends and family?” survey rates up. I have already talked about how the Rapid Recovery Programme is seen as a great sign of progress within the surgical and medical fields (Gordon et al., 2011; Ibrahim

²¹ Many surgeons in routine surgery now get paid by the hospital per operation and per patient consultation.

et al., 2013; Stambough et al., 2015). Everyone wants their name to it. But in this chapter, I look at how data that supports the Rapid Recovery Programme's progress is pieced together. The constant measurement, monitoring, and work to change data has been integral to this narrative of progress for hip replacements in the NHS. Hip replacements, in many ways, are pioneering the idea of a data-driven NHS.

I therefore continue with my case of hips to further unpack what it means to have a data-driven NHS, where data is king. In Part I of this chapter I show how this data is seen as king because of its omniscient, objective knowledge. I then follow in the footsteps of Mol (2002) to illustrate how data is multiple. Data gets enacted in various ways through the composition of its "actor-world" (Callon, 1998); it depends how data gets cut. In Part II I look further at the role that this version of data as king-like objective knowledge plays in the everyday delivery of care. I build on the opening passages of this chapter and show how having control over data is perceived as having power, as part of what is needed to become god. In the world of hips where all the grand discoveries have been made, staff tinker to improve data. As data gets enacted through these careful tinkering, I illustrate how the values of prestige, masculinity, and wealth that we saw in the previous chapter get reproduced. Data practices in the NHS thus becomes a mechanism, or apparatus, through which the inequalities we saw in the Rapid Recovery Programme are maintained. Data contributes to model patients being able to thrive, but also to others being pushed off the conveyer belt. In contrast to the work on evidence-based medicine and audit cultures summarised in Chapter 3 (Timmermans and Berg, 1997, 2003; Strathern, 2000; O'Connor and Neumann, 2006; Greenhalgh, Howick and Maskrey, 2014; Timmermans and Kolker, 2016), I again draw on stories of Charnley's work to suggest that data has always been held as king in the NHS. I illustrate that the 'nodes' in networks of data may have changed and grouped together differently with time, but some of the fundamental ways in which measurements, hips and checklists are related, are based on a particular conceptualisation of 'progress'. This idea of progress that legitimises data as king, also legitimises the 2.7-day conveyer belt and the Rapid Recovery Programme. Here I suggest we need to think beyond care as practice and begin thinking again about values in order to disrupt the replication of inequalities in the NHS.

Part I: Harnessing the data

The data says

I could tell the NJR had a bit of money because their regional meeting was in a well performing second league team's football stadium. Compared to the NHS' regional administration planning meetings I'd been to in conference league football stadiums with grubby carpets and instant coffee, this was posh. There were smartly dressed waiters and waitresses there to serve filter coffee and both fizzy and still bottled water on each of the round tables. This was a meeting on "improving data quality" and, given the team-making practices documented in the previous chapter, I was surprised to find that there were many different kinds of people in the room; surgeons, patient representatives, and the orthopaedic nurses who have to input data into the system. But they didn't all agree. The medical director (a surgeon himself) was having conversations with the Minister for Health about how this data could be used both for surgeons' appraisals with hospital management and NHS Choices to help patients make decisions about where to be treated. "But the data isn't even very high quality – I find so many discrepancies in mine when it gets sent back!" a surgeon protested, "and the public don't understand that you might have worse results because you're doing the trickier operations, the more difficult patients." The patient representative, on the other hand, pleaded that having surgeon level data available was "on the top of the wish list" for her and all the other patients she speaks to. It soon became clear that this data was different things for different people in the room.

The NJR was originally set up to find the best hip prostheses, which in many ways seems easier than finding the best surgeon; its object form is meant to have firmer boundaries than humans. When I first got a tour of the Fernwick Centre, the physio-led management were very excited to tell me about how they used the NJR data set to ensure they only used the best implants. Every few years the management team study the data from the NJR and negotiate boastable prices between the top two companies. "Look! We only have two types of hip and one type of knee in here!" the senior physio told me ecstatically when we walked into the store cupboard. Dozens of shiny, neatly cellophaned boxes lined the shelves; a range of black boxes on one side and white on the

other. In comparison, the more old-fashioned general hospital store cupboard nearby was apparently a “sweet shop” full of dozens of different types of components each according to the surgeons’ preference. They had taken on the policy advice from the Department of Health’s “Getting it Right First Time” initiative to ensure hospital managers take more control of surgeon-preference. This way they can get better prices for hip prostheses through bulk purchasing. At the Fernwick Centre they were very proud of their efforts to “keep the surgeons under control” - if the surgeon doesn’t use the hip that the management choose, then they aren’t allowed to work there.

The surgeons, however, feel they are the ones with the expertise to truly know how to understand the NJR data set. For them the best hip implant isn’t related to ideas of cost or money, it’s about the kind of implant the surgeon was taught with, and the techniques they use to get it into the body. Implants tend to come with specific tools and unless surgeons have learnt particular manoeuvres, unless they have the hands and body to match, the implant might not be put in nearly as well. Some implants simply aren’t compatible with some surgeons, and some surgeons simply aren’t compatible with some implants. Unlike the hospital managers who cut the data with money and against surgeons, here the data is linked up with surgeons, their educational tradition, their tools, and their bodies. Money does not come into it.

The manufacturers had yet another idea of what it meant to have the best hip implant. Firstly, their implant data is reliant on surgeons using it properly – the companies can only give guidance on how their kit is supposed to be used, but they explained to me how surgeons will try doing all sorts of renegade and inappropriate things with their kit. Of course, they make sure their initial clinical trials are with only the best surgeons to get the most accurate data. But after that it becomes more difficult, they have to send out reps to monitor whether surgeons are adhering to the guidelines. Furthermore, their data should also be linked to similar models of hip that have already been tested. The NJR measure hospitals based on the percentage of “10A” regulated implants; meaning they have minimal failure rates for patients who have had the implant for ten years. But for manufacturers this means they have to start from scratch with the regulators if they just want to try new coatings which may better fuse with the bone, or a slightly different stem shape to improve stability. So often

surgeons and hospitals choose hips using older technologies because they have more years' worth of data, when actually they suggest there's much better tech available. For the manufacturers the data on their implants should include the contexts of good surgeons and similar implant models; but should be cut from bad surgeons with renegade practices and regulatory stamps which take too many years to gain.

Back in the NJR regional meeting, the medical director was trying to calm the cacophony of voices down. There are clearly a lot of disagreements about the dataset as it is, but that's exactly why everyone was invited to the meeting; this meeting, remember, was entitled "Improving Data Quality". If we can reduce the amount of missing data, and find ways to present it to the public in ways they can understand, then many of these problems would be sorted, the director reassured. He told the room about a colleague at The University of Bristol "with the brain the size of Jupiter" who is really urging them to get the quality higher for his statistical tests. He has suggested that it's likely to be the hospitals with the worse outcomes who are the ones behind on submitting their data. The two nurses next to me looked at each other with a guilty, but slightly irritated, look. They had just spent the tea break telling me about how far behind they were with their forms. Just last week they thought they had managed to catch up on it all and they found another box of paperwork under the desk. Sometimes they have to chase surgeons or nurses for data missing from the forms, but they can't always remember. And other times the boxes just don't fit, or the right option isn't in the drop-down menu. "System says no!" they laughed together. Making up this data takes a lot of work. And it isn't usually the people who make truth claims with 'the' data who actually do the day-to-day collection of it. For these nurses the data didn't always fit the boxes; it had been spliced, contextualised and de-contextualised in the wrong ways. But they were the ones being blamed and encouraged to improve the quality of the data.

Despite the fact that the manufacturers, the hospital management, and the surgeons all saw an objective truth in the NJR data set, the data was different things for each of them. As Mol (2002) found with arthrosclerosis, knowledge of the object is in no way universal even within the biomedical world. Where, Strathern (1996) would argue, should one cut the network? The data changes depending on how it is cut with other actors in the assemblage. The managers

want to keep the ties between the data and money and cut them with surgeons; the surgeons want to keep the data tied with their educational trajectories and embodied techniques but cut the money away; and the manufacturers want to keep the ties with good surgeons and previous models but cut away the bad surgeons. Depending on where it is cut, this NJR data has multiple, often conflicting truths to tell. In one way these actors claimed to have little agency over data: “The data will tell us” the best implants, they told me, as if they are passive recipients of information. What is less acknowledged, is that all of these actors are also trying to play god over the data that is king. As the surgeon at the conferences suggests, they need to be in control of the data so that hospital managers like those at the Fernwick Centre can’t tell them what to do. Indeed, in the next section I suggest that in the fight to become god of the data set, it is not just that people try and harness data. The way in which these actors’ practices are shaped by the desire to be in control, and at the top, of data hierarchies, also means that data harnesses them.

In the rest of this chapter I also draw on Mol, Moser, and Pols’ (2010) concept of tinkering which I highlighted in Chapter 3. The practice of tinkering is set up in opposition to ideas of fixed worlds, where objective data can tell us what to do. It assumes a world where parts in the assemblage are constantly in flux, where the “world [is] full of complex ambivalence and shifting tensions” (Ibid., p14). Tinkering, they suggest is a practice inherent to care, where one must be “persistent” (Ibid.) in playing with the configurations of the patient, the crutches, the architectural surroundings, and the other humans around that are constantly in flux. Winance (2010), for instance, gives the example of a healthcare professional helping a patient find a wheelchair that is suitable, or good enough. It is not just about the patient and the chair, but also their carer and the handlebars, and tinkering with the parts of the chair to make it work, at least for a time. This form of action has often been feminised: for example, it is often based on ‘soft’ more malleable data, rather than the ‘hard data’ the NJR is trying to construct. Tinkering is about ever-changing and adaptive practices where the end goal is not fixed in the same way as it is with data. It is about “attentive experimentation” (Mol, Moser, and Pols, p13), where the assemblage and the relations between people and things are attended to. Whilst the authors occasionally mix up values and practice, by suggesting “good care” is about “persistent tinkering” (Ibid., p14), they also suggest care can be practiced to

achieve both good and bad effects (Ibid., p12). “If one looks hard enough”, they suggest, “any particular ‘good’ practice may hold something ‘bad’ inside it (and vice versa)” (Ibid., p13). In what follows I explore the practice of tinkering, and the values it can support through asking what happens when people start tinkering in a world where data is king? What happens when data which claims to give objective truth is part of the assemblage that needs to be tinkered with?

I use Strathern's (2000) conceptualisation of data as a network to help answer these questions. She suggests data does not always travel in a top-down informative way, from the Excel spreadsheet of researchers in institutions like National Institute for Health Research or The London School of Hygiene and Tropical Medicine. This pursuit of knowledge creates networks of data flows and practices to support it. It is present as soon as healthcare workers begin to write down, extract that data from patients, staff, and services, onto forms, papers, and online inputting systems. So too does data emerge again, as it boomerangs back from research papers into clinical protocols, new pharmaceuticals, operating tables, or clinical practices. If data doesn't give us a singular objective truth, but is enacted differently with different practices (Mol, 2002; Moser, 2008), then I suggest we need to look at data practices which produce the data as well as the practices that utilise the numbers or information at the end. This will enable me to cut the data in different ways, and see its role and relations in the assemblage come to affect the NHS.

Part II: Being harnessed by the data

Data makes order

Through putting the world into numbers, data enables us to rank people, things, and practices. Even if this data is multiple, depending on how it relates on a plain with other people and things, data gives the illusion of hierarchy. It enables us to put people, things, and practices in an order, where data at the top of this hierarchy is seen as a kind of road to truth or betterment. Whilst most surgeons, manufacturers and healthcare managers will admit that they could never reach the perfect hip replacement, they can at least come ever closer to

an ideal type, a utilitarian happiness where pleasure is maximised, and pain is made absent. Data is supposed to enable us to be outcome driven, consequentialist in our actions; with the assumption that if our actions are driven by what the data says, we will get the greatest happiness for the greatest number. I documented the prestige (and sometimes money) associated with being at the top of this (data) hierarchy in the previous chapter. In many ways the glory of 'becoming god', alongside the consequentialism of these data practices is directly opposed to the idea of tinkering. Tinkering is about modest forms of action in a world that is constantly changing. But in what follows I also show the similarities between modest tinkering and the gradual trial and error of experimentation with the data at hand. Here I argue that both are forms of "attentive experimentation". The important difference between them is what is being attended to.

The drive to get good data is meant to be a source of friendly competition between staff and hospitals. The playful performances of and between surgeons that I documented in the previous chapter is seen as the kind of atmosphere needed to maintain that healthy competition. Charnley got a lot of banter from his colleagues for his particular methods of cutting into the hip. The problem was that at times he would struggle to reattach the greater trochanter – a muscle in the backside he needed to remove from the bone to access the ball and socket. Maureen giggled as she told me about the time Charnley received an anonymous gift through the post – it was a coat of arms pin badge with the words "The Greater Trochanter Floating Society". Apparently Charnley pinned it up on his board and never took it down. When Maureen told me this story that afternoon in the Charnley Arms, I think she was trying to emphasise that Charnley had a good sense of humour and a competitive-yet-friendly relationship with the surgeons around him: the kind that she believes is needed for good progress to be made.

But it also emphasises the way in which the body-as-a-singular-thing is seen as a puzzle to work out, an object of competition, of which surgeons race to find the best fix. Charnley's advantage was that he was also an engineer. He and one of his partners in crime from the brewing industry, Hugh Howarth, brought down patient infection rates with the sterile enclosure known as 'the greenhouse' and then the design of head-to-toe surgery gowns. Together

Charnley and Howarth brought the infection rates down from 9.7% to 0.5% - and this was before the use of antibiotics (Howarth, n.d). Once these grander inventions were made, however, Charnley then had to tinker with the design: this was his “attack on the last half percent” (Charnley, 1978). He would try out different connections between the sleeve and the glove to ensure no bacteria got out from the surgeons’ skin, and different materials for the gown to ensure it was impermeable from the inside out (Ibid.). This tinkering allowed him to get the infection rate down to .001% (Abraham, n.d; Howarth, n.d), so patients could be even more certain of receiving safe surgery.

Sometimes the experimentation was a little closer to the bone; Charnley also had to find ways to reduce dislocations after surgery, and ensure the greater trochanter was more certainly fixed back into place. He had something like seventeen pairs of wire cutters, almost as many bores, and various different scalpels that he tinkered with to get the operation just right. Back before regulations on medical technologies many surgeons had their own engineering workshops to make and adapt their own tools. It was Maureen’s job to keep all of his inventions locked away, sterile, and labelled with their version number and each of their pros and cons. Maureen told me how Charnley would ask her to put a version of wire cutters back in the cupboard because the tension didn’t feel quite right, and then fetch such-and-such a version so he could make adaptations to it. He would constantly be trying to hone down the best tools for the job; he would tinker persistently. “I don’t know how his wife coped; I wouldn’t let him near my kitchen drawer!” Maureen exclaimed, “He’d be taking spoons, knives, anything to make into a surgical tool”. He was so curious and intuitive that one day he asked to borrow Maureen’s good metal pen and the next time she saw it was at the operating table – he had removed the ink and used the tube to siphon out the air bubbles as he was putting in the bone cement. Charnley swore the people that worked with him to secrecy until he was prepared for his work to go to Thackray’s, the local manufacturer with which he had built a long-term relationship (Craven, n.d).

But the thing that these (slightly romanticised) stories forget is that this tinkering, this trial and error, involves not just the surgeon and their tools, but also the bodies of patients. As Grobbelaar (2016), one of Charnley’s registrars remembers, “Sir John disliked complications so much that on occasion he would

even blame the patient: 'I hope you realise that you are messing up my figures.' Fortunately, he always cooled down rapidly, especially after the patient had apologised!" (Ibid., p193). When patients were not instrumental to Charnley's good data, they were blamed. Here we can see it is the data that is the purpose, the end being attended to and the patient is merely instrumental to it. This is illustrated further by Grobbelaar when he explains what happened when Charnley came to do the rounds, the cattle markets I described in the previous chapter. When Grobbelaar and the other registrars had patients whose' hips had dislocated after surgery, they "were briefed and wheeled into the sluice room²² for the duration of the ward round. Otherwise it meant a bad day in the office for everyone!" (Ibid. p192). As Grobbelaar will have known, Charnley saw the data from any operation carried out with his technique as *his* data; even if another surgeon was the one actually doing the cutting. Indeed, for a long time Charnley explicitly guarded who could and couldn't perform the operation by only letting people he trusted in to observe. If they learnt or trained from him, they were part of the Low Friction Society discussed in Chapter 6, and could therefore perform his operation (Cupic and Cupic, 2016; Salvati, 2016; Walt, 2016).

Whilst some accounts suggest Charnley was an altruist who didn't want to patent his work (Cavendish, 2016), others suggest he might have had financial interests in Thackray's, the company that was producing his inventions (Gossedge, 2016). Whilst I never met the man to make a judgement of his practices, what troubles me is that he still wanted to keep his inventions a secret – to keep them under wraps before any other surgeon had a chance to find out. Especially after Maurice Müller stole his design for the stem of the implant. This suggests the data was not just about finding the best way to do hip replacements for patients – indeed he blamed them for messing up his figures. What Charnley got from this data, and having this data as his own possession, was far more than money or shares; he also achieved prestige, a number of awards and accolades from his colleagues. As with any real prestige, these accolades are immortalised, existing far beyond his death. In 1987, five years after Charnley died, Thackray's organised a "Battle Bus" showcasing twenty-five years of Charnley's work to appear at the British Orthopaedics Conference. The slogan

²² The sluice room is where bed pans are emptied, and clinical waste is disposed of in the ward.

on the outside of the bus was “Stepping into the Future” (Ibid., p313) and the goal was to show the progress that had been made over the years “through clinical data and technological advancements” (Ibid. p312). The data is what brought this prestigious bus to life. Charnley seemed to be aware that being in control of good quality data was what was needed to become god. The prestige of being at the top of the data hierarchy was so important to him that his registrars would even hide their failures in the sluice room.

Here we can see how Charnley tinkered to get the best results. The careful, attentive experimentation of finding the best tools, and the best way to reduce infection rates. Tinkering was about taking into account all the different actors that could be at play – even including the bacteria that might come off his body, and the slight bit of tension in his wire cutters. Through doing so he found the best fit; the best ways to ensure he reattached the greater trochanter and the best ways to reduce infection rates. Whilst tinkering may be about seeing the world as an assemblage where actors have more equal importance than practices arising out of the demands of positivistic data, here we see that people have to cut the network. You can’t be attentive to everything all the time; you have to pick and choose. Here the network was cut according to the objective Charnley was trying to meet. The end goal in Winance’s (2010) story, on the other hand, was that the patient and their carer were comfortable enough. As we can tell from Charnley’s engagement with patients, both here and in the cattle market in the previous chapter, the patient wasn’t exactly the object of his gaze. Charnley’s gaze was on the data and the actors in the assemblage which he and his registrars thought were important to maintaining their place at the top of the data hierarchy. As a result, the persistent tinkering was not about being attentive to the patient and the way in which the assemblage related to them, but was about the data, and the way others in the assemblage related to that.

Maureen and Paul did raise the dilemma that many of the things Charnley did with kitchen implements and home-made scalpels would never be allowed today – and perhaps quite rightly in their opinion. But these stories are still told with some joy. Indeed, an equipment sterilisation unit I visited in an NHS hospital had a kind of ‘case-of-fame’ with all the wooden spoons, corkscrews and so on that were once regularly sterilised for surgery. They are at once

criticised and celebrated. But, as the argument goes, it was this experimentation, the fight for prestige to get to the top of the data hierarchy, that led to the improvement of hip surgery, and perhaps a reduction in the number of greater trochanters that were just floating above the bone. The idea is that it ends up with some good for patients down the line. That we should forgive the banter, the hiding of patients in sluice rooms, because it helped future patients.

Despite tighter regulations on medical devices, the experimentation that went on in Charnley's day doesn't seem to have stopped; it just takes different forms. If anything, they are even more akin to practices of tinkering, because it is all about the fine-tuning. When I went into the theatre tearoom one morning before the start of the session, Debs, one of the main theatre nurses told me about Mr S' new technique. Mr S had just got back from a whirlwind trip to America as a company wanted to show him a new technique they had developed with a new set of tools. This new method means you don't have to dislocate the ball and socket to begin the surgery. This enables the surgeon to keep an important muscle undisturbed, which theoretically improves the speed of the patient's recovery. At about eight o'clock Mr S came in and we walked through to theatre. "I hear you've got a new technique to tell me about!" I inquired cheerily.

"Well I've just tweaked it a little bit, it's nothing major." There was an unexpected touch of defensiveness in his response. He told me, as he had done before, that he is always trying to perfect his technique, fine-tune it, get his recovery rates close to perfection. Really, he told me, the company were trying to sell him a new set of tools. But instead, he came back to try and work out how he could use the tools he had to do the hip replacement without dislocating the hip. Having seen all the graphs showing he was one of the best surgeons in the country as I mentioned at the beginning of this chapter, I was initially impressed that he was still trying to fine-tune his technique. And he was doing so without giving the manufacturing companies NHS money; my activist self was starting to think this could be a good rebellion. It was so close to being included in my next, and final chapter.

When he started talking me through the new op, he laughed about how it took him over twenty minutes just to pop the top of the femur (the ball) out of the socket – “everyone thought I was mad!”. You have to saw the top off with it still in the socket and then screw a corkscrew into the top and kind of lever it out of the socket. I watched him struggle, and eventually, with a great deal of strength, he managed to pop the ball out. Everyone in the room reiterated that they thought he was mad when he first did it – especially when it was taking him so long. It’s especially difficult when there’s a lot of extra bone growth on the top of the femur as you tend to get with osteoarthritis, because the ball kind of swells into the socket. So it’s really key now to have good corkscrews, Mr S informed me. He was aware that the theatre assistants also had to rechoreograph their movements, as Mr S started doing things they weren’t expecting. Whereas before everything was all lined up, the team embodied each move in the ballet, now they had to learn new moves. For instance, he started doing the socket of the joint before replacing the top of the leg bone. This meant the scrub nurse had to give him different instruments at different times and the team was all out of sync. Part of Mr S’ laughter was the acknowledgement that it wasn’t as simple as him just changing his technique – he knew he had to work with the team to ensure all the socio-material circumstances were realigned. In this sense he was tinkering well.

Once again, however, this tinkering wasn’t for the patient in front of him. The procedure and routine are all starting to get back to normal now. But for a couple of weeks “it was all a bit hairy” – these initial patients took a long time and it was all a bit of an experiment. These patients (unknowingly for them) had to take on the extra risks, aches, and pains of being played around with and kept opened longer, in order to improve the overall dataset. Just as with Charnley’s patients, their bodies were treated as a population who will benefit from improved surgery rather than an individual who are more certain to benefit from current best-practice. The body of any one patient therefore becomes the body-as-a-singular puzzle to solve; and solve better each time. It was not therefore the patient in front of him that encouraged him to try out this new technique, but the pull of the dataset. A patient in this logic is merely part of an amalgamation of data points that go to make up an average. It’s not worth taking too big a risk, but losing out on the ‘time of surgery’ or hospital stay outcomes of a few patients to work something out which will improve the data in the

future is a logical hit on the averages of the data set. As I illustrated with Charnley's work, Mr S can't attend to everything in the assemblage – he has to cut it, he has to pick and choose. And once again, when Mr S tinkered, it was a data-driven practice, not a patient centred one. I thought back to the videos he showed me of the model patients with trademark hips – his own prize cows. This is what he was trying to produce, not the patient that was on the table right there and then. Whilst tinkering, here, is seen as necessary for future generations to benefit, it comes at a cost. It means the data has to be attended to in place of the patient there in front of them.

Data makes errors

In the last section I illustrated that tinkering is not always about caring for patients, their carers, and their wheelchairs, but can also be about caring for the data set. In caring for the data set, people can find ways to be at the top of its practiced order and become god. As mentioned, the justification for this kind of trial and error is that future generations will benefit. Whilst the risk may be higher for the patient immediately being tinkered with, the pay-off is that the errors are eliminated in order to make hip surgery safer and more successful for all. In this section I problematise this temporal logic, that suggests that future patients will benefit, and I suggest that tinkering can actually encourage and produce new errors. No matter how attentive one is, experimentation always brings errors with it. I highlight that the persistency that comes with the pursuit of progress, and the medical and trophies that come with it, is not so dissimilar to the persistency that can come with tinkering. Whilst the world is constantly in flux, and one needs to adapt to it, when data is king, tinkering can mean patients receive little attention at all.

As explained in the introduction to this chapter, some of the current tinkering is about finding the most durable materials so that the prosthetic hip can stay intact in the body for longer, and withstand more stress for activities such as running and skiing. The more durable the hip, the younger people can have surgery because it will last long enough, possibly with just revisional operation, until their death. In 1997 a new possibility emerged out of this constant

tinkering – the metal-on-metal hip. This means both the ball and socket of the joint are made of metal – a material that is supposedly stronger and more durable than the plastic stumbled upon by Harry Craven and John Charnley. The research nurse quoted under the title of this chapter, told me about a similar project where they just resurfaced the hip bones with metal parts. The Birmingham Hip Resurfacing technology was sold to Smith & Nephew, a prominent company in the field. Together both metal-on-metal hips and Birmingham Hip Resurfacing allowed younger, more active, patients to go ahead with hip surgery when they started to feel pain.

It wasn't until 2012, where tens of thousands of people had acquired a metal-on-metal hip, that the data was starting to suggest that these hips may not be all that safe (Cohen, 2012). It was then that the UK Medicines & Healthcare products Regulation Agency (2017) issued their first warning, based on the NJR's (2011) finding that metal-on-metal hips were more likely to fail. On further investigation it seemed that not only was the joint wearing away but cobalt and chromium metal ions were sometimes being released into the blood stream which caused concern around metal poisoning and related health issues, including cancer (Cohen, 2012). Over the next five years some manufacturing companies, such as DePuy, were forced to take their products off the market and eventually in 2017, the Medicines & Healthcare products Regulation Agency called for the monitoring of the thousands of patients who had been given metal-on-metal hip implants over the last twenty years.

This metal-on-metal hip has become somewhat of a scandal in the national newspapers, and has contributed to The International Consortium of Investigative Journalists' (2018) campaign; The Implant Files. In particular, issues have been raised about how the money involved led companies to continue selling their products internationally or through trials despite the knowledge that several agencies had declared their product unsafe. Issues have also been raised about how these products get regulated before they come onto market – there are suggestions that improving the quality of the data could help here (Cohen, 2012). Whilst this story suggests that data can sometimes help – that it can help us find fraudulent or failing hips such as those made with metal-on-metal bearings, here I suggest that the data also caused or contributed to the problem in the first place. As already suggested, the data is multiple and

situated; a court even ruled that DePuy's very own metal-on-metal implant "was a well-designed product with many positive engineering features" (Crown Office Chambers, 2016). Rather the data drives, or encourages people to tinker with things that are, perhaps for the patient at hand, good enough. In doing so it encourages the production of errors in everyday care.

The thing that really got me about the metal-on-metal hips was that whenever I cook with a metal pan it seems automatic to use a wooden spoon or a plastic spatula. A metal spatula straight on the metal would scrape the pan. Something about the idea of getting a metal part to constantly grind against another metal part inside someone's body just felt a bit ludicrous. Looking further it seems I'm not the only one. It turned out Mr Ken McKee, one of Charnley's contemporaries, had experimented a lot with metal-on-metal bearings and found them to be unsuccessful. In remembering this, another surgeon Peter Ring, joked that "perhaps progress is circular" (Reynolds and Tansey, 2007, p45). As described in Chapter 2, Charnley is credited as the one to have found the most suitable material for the prosthesis. But this also required some experimentation.

As described in Chapter 2, Charnley's first attempt at making a prosthetic hip was one made out of Teflon™; a material with an emerging market in the sixties known for its low-friction qualities. After operating on 200 patients he found that the Teflon™ hips were wearing down within about two years and the disintegration could mean the substance entered into their blood stream with its potentially poisonous effects unknown. Whilst most of the patients were said to be happy just to have an extra couple of pain-free and mobile years, Maureen told me that Charnley felt incredibly guilty and his wife had a big part in urging him to keep going. The next substance for the hip had to be right, and then he could go back and fix those two-hundred patients. By happenstance, a salesman came by Charnley's workshop to try and sell a new material – it was a hard plastic known as High Density Polyethylene. The salesman only found Charnley's engineer, Harry Craven, in the workshop. Harry took a sample but when Charnley got back from a day in surgery he dismissed the idea; how could this new synthetic material be any good to him?

Charnley went abroad for work for a few weeks and Craven decided to test this new material out anyway. They had already made a test rig which would

repetitively tap down on a material in a vice and measure how much the lever had to move down each time to reach the substance. The result was a measure of how quickly the substance wore down due to the tapping of the machine. When Charnley got back to the workshop, Harry asked him to look at the graph paper he had lined up around the four walls. “What graph!?” Charnley couldn’t even see it at first. “That straight line all the way around the room,” Craven was clearly chuffed; the plastic had only worn down by a thousandth of an inch (Craven, 2016, n.d). What’s more is that they could compare it to the Teflon hip. If the Teflon took twenty-four hours to completely wear down in the test rig and two years in the body, then they could estimate that the plastic was going to last much longer. As a result, High Density Polyethylene became the material that made Charnley his name as the inventor of hip replacements.

We have already seen how much Charnley is celebrated for this achievement. Charnley is seen as god, despite the fact that we can clearly see the lone inventor myth so clearly in this story (Pinch and Bijker, 1987; Bijker, 1997). Neither Harry Craven, nor the salesman for the plastic who decided to call in at a medical workshop, are credited as the father of hip replacements. The data here clearly gets more attached to the most important man in the room, the one who has already begun to make his name up the hierarchy. Coming up from the bottom of a ladder is a lot harder. Data here acts as a device to regulate hierarchy, both to maintain the competition for prestige, whilst maintaining the character of those who can be at the top. This drive for prestige, to get to the top of various graphs showing someone as being the market leader, is also what drives the teams like those in Birmingham to explore metal-on-metal hips. It encourages them to tinker with different materials to make their data just that little bit better, to help them to become god. The data here has power, it is, in a way, king. But it is not king because it explicitly tells us the answers, what we should do to get the best hip replacement. Data rules because it has almost everyone involved in hip replacements chasing the top spot of the hierarchy it creates.

Like markets, data requires failure. In order to show which thing, practice, or person is best, there must be some comparison to lesser goods, or indeed errors. The promise of trial and error, even of more modest, “affective experimentation”, is that eventually the errors will be eliminated, and a good

fix will be found. But because of the constant drive to tinker new materials, new competitors are constantly entered into this competition. In this way we don't just eliminate errors, but we constantly create new ones. And when these errors occur, are pushed to the bottom of the data hierarchy, the patients aligned with these errors are also failed. When data is the thing being tinkered with, it's not the same as in Winnace's story where if the wheelchair doesn't fit, it just means trying out another. When data, rather than the patient, is the thing being tinkered with then the errors can't be found out until sometimes years later, when a lot of damage has been done.

Nevertheless, the promise of that moment of discovery, where surgeons will no longer have to experiment on future patients, legitimises experimentation to feed the data in the present. But as I've illustrated here, progress that is thought to be linear, where errors are eliminated, can in fact be circular. The data never comes to help future patients because they will just get tinkered with in a different way, with a different variable (or even the exact same variable such as metal-on-metal bearings) in mind. Of course, this isn't to say that tinkering shouldn't or doesn't have to be persistent; assemblages are constantly in flux and will always need attending to. But it is important to realise that the promise of trial and error, or even of "affective experimentation", can never really be actualised; if tinkering is persistent, so are the errors. As I explain further in the next section, if the thing being attended to is the data, then the errors for the patient are particularly persistent.

Data makes emotional barriers

The kind of data I identified as being king is not only quantifiable, but is characterised as "hard data", which can produce "hard facts". This kind of data is seen as a strong, decisive, and unwavering guide to action. Whilst these anthropomorphised characteristics can of course be associated with any sex or gender, they have long been categorised into a masculinised gender role, where man is head of family and decision-making. As I explained in Chapter 3, this kind of knowledge has long been gendered through its association with the public, where data must translate to capital and provide a distanced universalistic

understanding, rather than the private sphere where values are allowed to be particular and affective (Porter, Theodore, 1995; Sawday, 1995; Mol, Moser and Pols, 2010). In this section I argue that data acts as an emotional barrier between the tinkering actors and the patients they are tinkering with; it is an apparatus for the tough empathy or detached concern that I described as so problematic in Chapter 6. As a result, the persistent errors I demonstrated in the previous section are not only poorly attended to, but are also particularly prominent because there is so little concern for the effect of errors on the patient themselves.

As suggested in Chapter 5, the data on stand rates (based on how quickly people stand up at their bedside after surgery) is another pull on many people's actions. Integral to the stand rates is the concoction of anaesthetic a patient is given to tolerate the pain of surgery. Mr S explained that hip surgeons originally learnt from the maternity wards, because the women who had just had a caesarean were able to walk home the next day, or even a few hours after their operation. It turned out they reduce the spinal epidural which numbs the bottom half of the body, and increase the general anaesthetic, so their legs are less numb when they wake up. This way patients can get up from their operations quicker which starts to strengthen the muscle around their joint, and therefore, according to the Rapid Recovery Programme, the strength of the patient's recovery.

But they still haven't got it quite right so sometimes the anaesthetists play around with the mix, tinker with the drugs to try and get them at just the right balance. They don't want the patient to wake up or feel too much pain, but they also want them to come back into consciousness shortly after the op, so they can start walking as soon as possible. It is not until the patient is back up on the ward that it starts to become apparent if it was a success. One morning, Charlie, a physio, started to suspect something was up when they had to rush in to help a patient who had been sick all over the bed. Retreating back to the nurses' station, I thought nothing of it. But later that day, whilst we were trying to get someone to stand, their blood pressure dropped right down, and they started to feel dizzy. The physio sent me to go and fetch a nurse and eventually I found one at the medical officers' desk – "Charlie needs you in room 26, the patient is being sick."

“Yeah of course...” The nurse looked to his colleague with a knowing look, “the seventh one today, it’s Dr A’s patients,” he said under his breath.

Having left the room, with the patient okay but without the crucial data point on standing up, I got the chance to ask Charlie about the sickness. She told me that “sometimes it can be when the anaesthetist gets a bit cocky and starts experimenting with the ratios he mixes with.” But they never even come up to see the patients to see what effect it had. She tries to catch them downstairs outside the theatre to ask them what they changed, but even when she does catch them, they’re not interested in engaging in conversation. They always reply with “nothing”, then walk away in thought.

The anaesthetist had hoped that his tinkering with the ratios of the anaesthetic might have helped enable people to get out of bed sooner. But he wasn’t interested in going to see whether this actually worked for the patient or not. He was interested in the stand rates, the numerical proxy for whether a patient managed to get out of bed. He was not interested in the *qualities* of the stand: how strong patients look and feel doing it, how much nausea or vertigo the patient experiences, or how tired and worn out, or raring to go for a walk they are afterwards. In fact, the vomit, the eyes rolling back into the head, the noticeable fear experienced by the patient are deliberately stripped from the celebratedly thin data point. The data point thus also acts as an emotional barrier; an apparatus to support the detached concern which I illustrated is so problematic in the previous chapter. Here I have argued that the data apparatus of detached concern pulls those who care about being at the top of the data hierarchy further away from any care for the patient or their hip. Failure is necessary to this data-market. But just like the patients who get hidden away in the sluice room, the way in which these failures affect patients, does not then receive any attention or care from the people who are doing the tinkering.

Data makes markets

Data works well with markets. Indeed Porter (1995) suggests the rise of our trust in numbers is strongly associated with the rise of industrialisation, capital,

and free markets. Because data can tell us where to put our money, where to invest in new technologies, new training, or new patients. The thing that the data shows does the most good will win out, get more investment, more wealth. To invest in good corkscrews to help Mr S' new technique, a new implant which is more durable, or an operation and a new hip to keep someone working. So-called 'rich' data sets are richer because they hold more capital, more power about where the wealth should get distributed.

One of data's important roles is in determining which patients 'need' hip replacements. Who is worth spending money on? When I met with Bea, a woman who had recently had a hip replacement, she told me about how she nearly didn't get approved for the surgery. She was at the point where she couldn't even walk to the shops and once she even had to get her partner to come and pick her up from the curb because she was in so much pain she had to stop in the middle of the street. So when she went to the GP who diagnosed her as needing a hip replacement, she was assuming she would get referred to a surgeon. But instead she got sent to a musculoskeletal centre (a triage centre) where she had to get an intermediary-check, an intermediary-diagnosis, and be intermediately sorted by a physio.

She told me how unqualified she thought he was – he told her at the beginning that he would only need to examine her hip depending on her answers to the checklist he had in front of him. He went through each question and carefully put a cross or number in a box after each one. As they went through, she started to see his face turn – “you know, the ‘I’m sorry but I’m not sure you qualify’ face”. Bea couldn't believe it – “how am I going to sleep at night!” she pleaded.

“Oh? You mean it's stopping you sleep at night? How often does it wake you?” The physio suddenly seemed interested.

“All the time – I'm lucky to get four hours a night!” Bea was almost in tears.

“Oh well I didn't think I needed to ask you that²³ but that actually qualifies you for a hip replacement so let me examine you...” Bea had struck gold, she'd hit

²³ From what I gathered through numerous conversations about this triage centre, it seemed to be a checklist that sent you to different questions depending on what the

that thin data point she needed to in order to move through the checkpoint and have a consultation with a surgeon.

“But imagine if it was someone less confident who didn’t cry out about the pain they had at night?!” she pressed to me in our conversation. She said she ended up asking the physio why she was sent to the triage centre in the first place – rather than straight to a surgeon. He told her the organisation had targets for the amount of hip operations they could defer – although only for clinical reasons of course. The technology for giving someone a new hip had got so good that younger people can now have them without worrying so much about how long it will last, and the risk-ratios for infection have been massively reduced. More people are now medically qualified for having a hip replacement but the cash-strapped NHS is struggling to pay for them all; regional bodies are therefore finding databased solutions, such as this musculoskeletal centre, to limit the number of people going ahead to ‘use up’ surgeons’ more precious time and resources.

But the data that has gone into building that checklist – the data that determines whether or not someone needs a hip replacement, almost meant Bea had to have sleepless nights and stop walking to the shops. Luckily for Bea, she had hit the mark, found the ‘open sesame’ she needed to have the data practices behind her, on her side. Here it seems that the data points that measure patients are much more successful in determining their fate than gathering their experience of living with an arthritic hip.

Others made it through this checkpoint but got stuck when meeting the surgeon themselves. Mrs Gordon was the next patient Mr S asked me to call in during his Thursday clinic. She came in very cheerily – she had had her other hip replaced by him and from her “Hello! How are you?” as she walked in, I started to feel she was the kind of patient Mr S laughs at for acting like they’re best friends.

Hello, sit down, what can I do for you?

person answered. Here it sounded like Bea didn’t go down the right route of questions because she had answered negative to previous ones.

“Well,” she said, “you did my last hip five years ago now and it’s been absolutely superb. I haven’t got any pain or anything like that in it anymore. But the thing is I can feel my other one start to go and so I’ve come to see if you can do my other one. Now the thing is,” she continued to defer, “I’ve come earlier this time because I don’t want to leave it as long as the last one – I was in pain for ten years and I didn’t realise there was something I could do about it. I don’t want to be in pain for that long again. I’ve got my grand-kids and I want to be able to run around and play with them but the pain’s stopping me, and you know, I don’t know how much longer I’m going to be here!”

“Okay, is it painful right now then?”

“Well yeah a bit. But here’s the thing I feel like a bit of a fraud because when I was working in the supermarket before I was doing a lot more running around and stacking shelves and that was when I was really feeling a lot of pain. So because I was struggling they moved me onto the checkout all day. Now I’m sitting down all day it doesn’t feel quite so bad.”

“Okay, but now you’re on the checkout it’s not restricting you there at all?”

“Well obviously with my grandchildren, but I’m sure it will... I just want to have it now whilst I’m fit and healthy, I don’t want to wait ten years in pain again where it’s stopping me from doing things. I don’t really want to be on the checkout forever either”

“Okay well let’s examine you.”

Mrs Gordon walked to the table, sat down, and swung her legs round onto the bed with a little momentum. Mr S already looked sceptical – he moved her legs around to examine the joint. He wasn’t so delicate as he was with other patients - seemingly confident he wasn’t going to cause much pain.

“Are you still skiing?” Mrs Gordon asked whilst he was examining her.

“No, I haven’t been skiing in a while.”

“Ah last time you were skiing a lot, have you given up?”

“No just not this year...”

“Oh... how about golf! Are you playing golf?”

“No I don’t play golf, I prefer cars.”

I could tell she was trying to get on Mr S’ good side.

“Does it hurt when I do this?” Mr S bent her knee and moved it to each side towards him and the wall – there was a lot more movement compared to the last patient I’d seen.

“It’s when you do that, take it back like that, I can feel it going,” Mrs Gordon confirmed.

“Okay, well let’s have a sit down and look at your x-ray...”

They moved back to the chairs and Mr S began with the bad news... “the thing is...”

“Oh no you’re not going to let me are you!” She interjected – “but I really need this done! My grandchildren...”

“I know.... But you see your hip really doesn’t seem that painful and I can’t really see that much evidence of wear on the x-ray. They’ve accommodated for you in your job so you can still work and that’s all okay. We can watch it and I can put in an appointment for three months’ time...”

“But then it will be even later! I don’t want to have to wait...”

“I know but the thing is as a surgeon I have to be very careful because occasionally things go wrong. And if something goes wrong but I know it was worth the risk then that’s okay, but if something goes wrong and I think you didn’t really need it in the first place then that’s a different matter... but I’m happy to monitor you and we can see how things go...”

“But please, Mr S, it really would mean the world for me!”

“Okay, well let’s monitor it then...”

Eventually Mrs Gordon left the room defeated. Once she left Mr S explained that there was sometimes an unstoppable demand from the public. Once someone has had such a good experience with one hip, they want the other for the sake of it. It’s his job to ensure that only those that really need new hips get the operation. But this patient-as-consumer logic doesn’t quite make sense when I think about the pain and ordeal I saw people go through to have their hip replaced – and Mrs Gordon had experienced this before. “I didn’t *choose* to have my hip replaced!” was a common response when the word ‘elective’ surgery came out of my mouth. Most of the hip surgery alumni I spoke to assured me that no one chooses or *elects* to have an operation with no reason. More often people talked about it as the point where they had to “give in” to the idea of surgery, give up their bodies to someone else for a time. The thought of being cut into scared people – “it’s like a whole other universe in there!” as one person informed me. With this in mind, I interpreted Mrs Gordon’s case rather differently to Mr S. I saw that Mr S had a very different actor-world to that of Mrs Gordon. He had particular value judgements to weigh up his decision. Value judgements, which I argue, are built on the classed and gendered practices of his field that I illustrated in the previous chapter.

Mrs Gordon’s case, in Mr S’ defence, was a difficult one. She wasn’t in the agony that Bea and others I saw seemed to be in before their operation. She wasn’t waking up at night in extreme pain. But I couldn’t help noticing which data points ticked Mr S’ boxes, and which didn’t. The issue Mr S raised was that of risk – weighing up the data Mr S has created on his personal risk of operating and the need for her hip replacement is integral to this kind of decision. His own infection and revision rates come into his calculation, despite the fact that Mrs Gordon didn’t seem to have any complications that would put her at any particular risk for this surgery. The physical examination also came into Mr S’ calculation – but this was a physical examination of the present, where Mrs Gordon had already made a number of sacrifices to her daily life. These sacrifices, however, were not of interest to Mr S.

As described in Chapter 5, it is common for people to get hip replacements in order for them to ski again, or run from Lands’ End to John O’Groats. Another

cyborg-alumni I met who it turned out had the same surgeon, had the surgery because he could no longer cycle to work at his London office. Mrs Gordon, however, could no longer stack shelves in her supermarket job, and was resigned to the tills. Whilst this was important to Mrs Gordon, and probably to keeping her fit and healthy in other ways, Mr S could not see the value in her going back to stack shelves. Mrs Gordon also wanted to be able to play with her grandchildren, to be her version of a good grandmother. Mr S, on the other hand, didn't value the more feminised labour of caring for grandchildren, in the same way as in the previous chapter he had no care for knitting. Finally, Mr S did not value Mrs Gordon's fear of experiencing the extremity of pain that she had five years ago. Mrs Gordon seemed to have weighed up the risk and fear of having surgery with the risk and fear of having this pain getting gradually worse for ten years. This was another potential data point that could have gone into Mr S' decision making. But given his off-hand comment relating to some imaginary unstoppable demand and wish for hip surgery; it clearly had not.

In the previous chapter we saw that the socio-material lives of surgeons are very different from those that tend to fall off, or get pushed off the conveyer belt of the Rapid Recovery Programme. Here we see that the forms of social, economic and cultural capital that get taken into account of surgeons' checklists are those which they also compete for. They can understand when someone can't ride their bike to their London office, and they can understand when someone can no longer ski – even if they haven't been skiing in a while themselves. This is because these activities and the objects associated with them have come to make up the surgeons' actor-worlds. But if someone can't stack the shelves in their workplace, or run around with their grandchildren, it isn't such an issue. These aren't the forms of capital they are competing for, and these aren't practices, people, and things they know to attend to, and so that is not where the money goes. Mrs Gordon, despite her own weighing up of the risks and fears, does not 'need' a hip replacement.

The criteria for being eligible for a hip replacement have chopped and changed over time. But the data points chosen still seem to be made up of the surgeon's risks and benefits than those of the patient. When Charnley was first doing hips the risk ratios were very much more in favour of failure than they are now. It was a new technology that still needed to be tested. As a result, patients'

mobility had to be more impacted before they were offered the procedure. But importantly, Charnley was also on the lookout for patients that could help him improve the technology, so he was particularly looking for patients who would die within the next ten years. This wasn't so much out of concern for whether or not the patient may need another operation, but was because he wanted to examine his new prosthetic invention, after they had retired from their job in the body (Curwen-Walker, 2016, p152). By selecting patients who would die before him, during this moment in his career, he could learn and improve his work through carrying out a post-mortem assessment of the joint. Once again, we see the selection of patients being pulled by the requirements of the surgeon's particular iteration of the data, rather than an understanding of the patient as an individual who might not fit into the data set. Because of these unquestioned categories of data, it is only the values (and therefore things) that dominate the environment – such as those of being distinguished, high class, and male - that get incorporated into the decision. When the surgeon puts so much work into becoming god, they often win the competition to make data their king. King and god maintain each other.

Bea, who we heard about at the beginning of this section, used anti-neoliberal logics to explain why some people couldn't get surgery very easily; weren't given the wealth needed for their op. She suggested they had made financial cuts by getting an inexperienced physio to do the checklist, and that the pressure was on to reduce the number of people having hip replacements. But after hearing further about how patients get selected for surgery, it becomes clear that it's not just about neoliberal logics or financial pressures. It's about the data *practices* that have been embedded in the NHS from the beginning, as well as which data get picked. Because data is seen as king – an undemocratic, objective arbiter of wealth – we are not allowed to question the kind of data that goes in to make up Mr S' and Mr Charnley's risk assessment. That bit goes unquestioned. Rather, by default, the forms of capital that are valued in the assessment are aligned with the most powerful people in the room. They come to form the boundaries that make up the differences between Mrs Gordon and Mr S – the socio-materialities and everyday practices of being able to stack shelves and play with the grand children are of little value here. The London cycles, caviar, and trophies all assemble together in niches related through data,

whilst patients such as Mrs Gordon, Bet, and the homes and workplaces that they need attending to are pushed out to collate together some place else.

The logic of markets and data alike are that eventually supply and demand will reach equilibrium; that the data will tell us the best method, the best materials, the best time to have a hip replacement. But the invisible hand doesn't actually link supply to demand. It links supply with *some* people's demands; those who have particular resources around them. Here we can see that the "goods" that are produced are those of the surgeon, just as we saw that it was the surgeon who got attached to the data when Charnley, Craven, and the High Density Polyethylene salesman found the best material for the hip. When the way in which data is pieced together goes unexamined, uninterrogated, then data contributes to the maintenance of well-practiced hierarchies in the NHS. Data plays the role of creating a market where financial value is placed with the tastes of the gods, with the things surgeons, for example, associate with. This value - because of its association with the data - is then said to be objective. Far from pulling practices, people, and materials upward, trial and error accumulates interests in an area labelled the top, and leaves some people with fewer, or lower valued resources, at a place labelled the bottom. These people end up with a poisoned hip, without a hip replacement, or with a hip replacement but without the care needed to recover.

When data makes care

As described in the introduction to this chapter, tinkering is supposed to be opposite to the objective practices of data. So when I first started spending time at the Fernwick Centre I was excited to find that the process wasn't entirely standardised or protocolled as the critical literature on evidence-based medicine warned me. Rather, the physios tinkered, made modest small changes with attentive experimentation, to ensure that patients got the right help for their circumstances. In the hip classes, when everyone was asked to go to the parallel bars to learn the exercises, the physios would be aware of who could move across the room independently, and who might need a little more help and guidance. They would quietly place a chair behind those who were more

unstable or feeling sick in case they felt the need to sit down during the exercises. As everyone learnt the routine – bending their knee up towards them or putting their toes behind them – the physio would carefully observe each of the people in the room to see how easy or hard they found it, or how high or far back they could move their leg, and would give advice accordingly. At the time I thought of these tinkering in relation to how Mol, Pols, and Moser (2010) theorised tinkering as a form of care. And indeed, some of these tinkering, as I suggest in the next chapter, were really done with care for the patient.

But the more time I spent there, the more I realised that this tinkering wasn't always for the patients' benefit. On many occasions it was the data being attended to in this experimentation, through the mechanism of the patient. Fred, for example, was in his eighties and he was only at the stage of using a frame to walk – he didn't feel stable enough on crutches. But James, the physio, worked with him to plan a way for him to get up to his bedroom at night. Fred would be given two frames – one for upstairs and one for downstairs – and there would be a stick perched at the bottom of the stairs. They practiced the routine: first, Fred would transfer his weight from the frame onto the radiator at the bottom of the stairs (James put his arm out to pretend to be a radiator), and then he would grab the stick and use the handrail. He only had a narrow staircase so James then turned and put his arms out to act as a wall on the steps so Fred had a better simulation of what it would be like at home. He got to the top of the stairs where there would be another frame and he would leave his stick in the corner so it was less likely to fall down. They then practiced the same thing for the way down. The handrail at the top of the stairs went along the wall a bit so Fred would be able to use that to balance the change between the frame and the stick, and again James acted as the narrowing wall on the way down. Between Fred, James, the walking aids, and the stairs they had done it, Fred was able to go home later that day. In many ways this seems like an exemplar form of tinkering, where James attended to the relations of the narrow staircase, the radiator, and Fred's needs, in order to help his changing body adapt to his environment.

"I told you I could discharge him today!" Back at the nurses' desk, James celebrated loudly with a broad smile on his face. After the celebration calmed down, he told me about the various ways in which they sometimes have to

tinker with the protocol to keep the average at 2.7 days. As great and uplifting as it was to watch James act out the wall and the radiator – to become the objects in Fred’s house – this caring practice was regimented towards a different goal to the one I had in mind. When James briefed me about Fred he told me that he had already been in for four nights and still hadn’t managed to get onto crutches, let alone sticks, so James had to do something to accommodate, to allow him to go back to his home on his own. It wasn’t that they were particularly tight on bed-space and James was caring for future patients – the Fernwick Centre always had a couple of spare rooms that could be cleaned and used just in case. The real problem was that patients like Fred had the potential to pull on the average stay of 2.7 days: to take it up to 2.8 or 2.9.

This isn’t a new story in this thesis. It is another iteration of the stories of Janet and Bet in Chapter 5. I put it here to leave the surgeons, and come back to the ward. I do so to emphasise that these assemblages of data, masculinity, and class, do not stop at the doors of the theatre. These assemblages are pervasive in the NHS. Although I do illustrate times where physios act against the data in Chapter 8, here I am illustrating how the drive to make good data, to keep emotionally detached from the patient persists across the workforce. Here we see that for James the draw of the data also took over. The data here isn’t powerful because it has told James the best course of action for the patient. It is powerful because it moved James, Fred, and the radiator in Fred’s house to work to maintain the 2.7-day target. The data was in a way decisive to James’ actions, because it prompted him to make actions that cared for the data. Fred, on the other hand, was not the focus of the care. Indeed, Fred was forced into a position where even he has to care for the data. To work between two frames and a crutch, to become part of James’ choreography of getting up the stairs, because he is not allowed to stay at the hospital until he can walk on crutches rather than a frame. This form of tinkering, I am suggesting, is more like someone attending to the mechanics of their motor after a crash, than the passengers inside the vehicle. It is modest, subtle tinkering, but in entirely the wrong place. Though the practice of tinkering might seem to embody care, the ends – where we decide to place value, which parts of the assemblage we choose to attend to – also matter if one chooses to address the inequalities that I illustrated in Chapter 5.

Data is tyrant

At the beginning of this chapter I described how everyone involved with the National Joint Registry was trying to improve the quality of the data to improve the quality of the delivery of hip replacements. Good quality data is supposed to result in medical progress. After showing that the objectivities produced from data are multiple depending on how the data gets cut, I introduced Mol, Moser, and Pols' (2010) concept of tinkering as an alternative. Tinkering allows for a more "affective experimentation", a more modest form of action which focuses on the practice rather than some grand end result we might call progress. Tinkering allows us to attend to others in the assemblage, to work with the arrangements between people and things to find at least a good enough fit. I then spent the rest of the chapter asking what happens if we look at the way in which people tinker when data is king – when data is an important part of this assemblage, and indeed governs the relationships between different actors.

I began by showing how data makes hierarchies. The prestige associated with being at the top of this hierarchy means that data isn't just king because it tells people what to do; it's king because it drives an urge to constantly tinker to improve the data. Here I illustrate that when data is king, the things that get attended to are things associated with the data, rather than the patient themselves. Patients, here, become part of an amalgamated data set, and the logic used to legitimise the constant experimentation is that the errors will be eliminated, and future patients will benefit. In the next section, I go on to critique this logic and suggest that tinkering doesn't just eliminate errors; it constantly creates new ones. The competition to get to the top requires continual new entries, new ideas, new tinkering to add into the mix – even ludicrous, circular ones like metal-on-metal bearings. The numbers, importantly, are an incredibly thin data point – they don't show the pain and the fear that patients actually experience as a result of people's tinkering. The errors, alongside the patients, are poorly attended to. Finally, I illustrate that the thin data points that are valued are those associated with the classed and gendered assemblages I illustrated in Chapter 6. As a distributor of wealth, data

pools money and prestige at the top of its hierarchy: top surgeons, model patients, and trademarked hips are all in relation. You can't get a hip replacement if you want to complete your working class job or run around with the grandchildren. Data as king and surgeon as god remake one another. Finally, I suggest that these assemblages don't just stop at the theatre doors. I returned to the kind of stories I told in Chapter 5, to show how tinkering for the data maintains the inequalities I present throughout this thesis. When tinkering is about tinkering for the data, it becomes about maintaining the conveyor belt of the Rapid Recovery Programme, where some people are attended to more than others.

At the same time, I illustrated that data is not something new in the NHS as suggested by critics of evidence-based medicine (Timmermans and Berg, 1997, 2003; Greenhalgh, Howick and Maskrey, 2014; Timmermans and Kolker, 2016). Whilst Strathern (2000), along with Adams' (2016) collection on *Metrics*, suggests that the big data sets, paperwork and Excel spreadsheets that audit culture brings has brought about a fixation on data, I illustrate that these data practices have always been prevalent in the NHS. As in Chapter 6, I draw on historical accounts of Charnley and his tinkering to show that the actors in the assemblage may have changed, but the way in which people relate to data is essentially the same. When data is king, it gets in the way of attending to patients themselves, and particularly those who fail to be model patients. They are put into sluice rooms, or blamed for messing up the figures. These objective forms of knowing, these knowledge practices, have dominated the NHS from its very beginning. Indeed, it is worth highlighting here that Florence Nightingale, the mother figure of healthcare in the UK, is a much forgotten pioneer in the practice of statistics in healthcare who lived long before the NHS (McDonald, 2001; 2014).

Finally, I suggest that we need to think beyond the practice of care as tinkering to think about how to stop the production of inequalities in the NHS that I illustrated in Chapter 5. The tinkering that I presented in this chapter reproduces assemblaged class and gender inequalities, made up of supermarket shelves, London cyclists, skis, narrow staircases, and yet more awards and accolades. It not only allows tough empathy to be operationalised, it also means the forms of capital more closely associated with surgeons get

prioritised across the whole delivery of hip replacements. It is not enough that *other* people such as Charlie care for these other elements whilst others are driven by data, because the decisions and actions they continue to take act upon patients. Tinkering is theorised as a feminised revolt against the objective data we have seen take precedence in this chapter. It is about focussing on the practice of care, on how we might work with a good and bad that aren't so easily defined. But if our ends are so relative, so devoid of value, then tinkering can end up replicating the inequalities experienced by Fred and Mrs Gordon who I introduced in this chapter, and Bet and Janet who I introduced in Chapter 5. Rather, I suggest that values are inherent to practice. After illustrating how and why I troubled my own values to fall out of love with the NHS, I come back to them in my final chapter. Here I suggest it is imperative to think not only about which parts of the assemblage, including the errors, are attended to, but also what kind of value is given to particular actors.

8 | WHAT IS TO BE DONE?

Joining things together: From hips to the NHS

In the last three chapters I have illustrated how and why I fell out of love with the NHS. Before I summarise this journey, I will briefly remind you of where I began as a campaigner, holding up placards to *save* the NHS. The thing about the NHS that I think made me, and still many others, love it in the first place is two-fold. The first is that the NHS is meant to be a beacon of equality; a way in which our society has attempted to address the rife inequalities produced by otherwise unregulated capitalism. It is a relic of our semi-socialist past that has stuck in and just about survived this wave of what some have called neoliberalism. In my past, and I think other campaigners' minds, taking away or even changing the NHS is an attack on projects to bring about equality. It is the equality-aspiring part of this logic that I want to hold on to, rather than the assumption that public services produce this equality. This is why my interest in the privatisation of healthcare as a campaigner morphed into a question about how equality and inequality get practiced through the healthcare workers, patients, beds, and scalpels that make up the NHS. The second reason I loved the NHS, which is harder to admit, and I hope to have begun to shed, is the encapsulating, identity-making emotion of nationalistic pride; the way that the National - NHS contributes to an imagined national community (Anderson, 1983). Great Britain's opening ceremony for the 2012 Olympic Games demonstrated this particularly well (Boyle, 2012). When I first saw the nurses from Great Ormond Street Children's Hospital dance around with acting-patients, I felt that swell of emotion called pride that we still had a *National* Health Service free at the point of use for all citizens. Coming right after a fast track version of the industrial revolution, and the entrance of the Queen with the national anthem and *007*, this exhibition of the NHS suggests it is integral to the idea that the UK, even with its vast differences in private wealth, looks after its citizens. As Aneurin Bevan suggested, the NHS gives the UK the "moral leadership of the world" (Guardian Archive, 1948).

Crucially, this dance at the Olympic Games also represents many of the criticisms I have laid out in this thesis. Everyone was dressed up as if it was the 1950s, glorifying a nostalgic past and creation moment. There were children in

striped pyjamas in iron framed beds, and nurses in blue dresses with white caps and pinafores. The doctors wore white coats and danced further away, in a perimeter around the nurses, who were attending to the children in the middle. The distance both distinguishes the doctors' expertise and allows them a measured emotional detachment. As represented in the dance, they can come over to the bedside on occasion to give objective, rational instruction. After a visit from some evil classic book characters, a host of Mary Poppins figures came down from the skies to help the nurses eventually put the children back to sleep. This mythical, magical, compassionate woman represents the ideal carer, and rather than see her be paid we saw her come in from the skies and fly off in the wind. Looking back at this now, my eyes no longer well up. Because it is this version of the NHS that I have shown still lives on in it. It is this version of the NHS that contributes to inequalities rather than works to fix them. Through unravelling the NHS in this thesis, I hope to have begun to separate the version of the NHS that is used on Brexit buses, from a way of doing healthcare that satisfies my activist and anthropological selves, that satisfies the medical sociology and anthropology literatures I presented in Chapter 3, and the political present.

I started out by suggesting that the unequal experiences of NHS care are about more than a neoliberal logic and the so-called "privatisation of the NHS". By taking cherry picking as a focus I began with one of the main critiques of the neoliberalisation of the NHS; the idea that the easiest hip operations will get selected by the independent providers to make more money, whilst the more complex patients will have to get picked up by NHS providers. Whilst I did observe this process, I also observed a set of further, more implicit, sorting practices which I suggest are based on the more longstanding inequalities of any capitalist, liberal democracy. The economic system where people are viewed as rational individuals who self-determinedly navigate their own way through life, seeps into the fluid boundaries of the NHS. By expanding the network of the NHS beyond the hospital walls, often into the private spaces of the home, I found that the NHS relies on many other socio-material actors; actors which are unequally distributed. In order to be a model patient who can leave the hospital in under 2.7 days with Mr S' trademark hip replacement, a patient has to have three things: money, a social network, and the drive and know-how to get on with it through the pain.

Crucially, throughout this thesis I illustrate that although these aspects relate to Bourdieu's economic, social, and cultural capital, the capital is in the relations between people and things. They are beyond-human. I join Bourdieu in thinking about capital as beyond just economics, but see how value gets given to different things depending on their relations with other more or less valued people and things. Through using a flattened ontology that is interested in what people and things do, rather than what they are, I illustrated how power accumulates through the formation of particular niches of people and things. In this way, model patients, caviar, pearl necklaces, and surgeons all collate together, pushing away the occupational therapists, box freezers, and overstays to somewhere else across the plain – away from the people and resources they need. Poor distributions of resources are built up through everyday assemblages of people and things. As suggested in Chapters 3 and 4, my aim in this thesis was also to bring both big-P and little-p politics back into the literature on assemblages, networks, and practices. Drawing on more traditional sociological literature which looks to class and gender, enables me to think about how these kinds of inequalities are pieced together. As I suggest in this final chapter, this way of looking at the world enables me to see the inequalities produced out of these practices as more fragile, fleeting, or in flux, making it easier to illustrate how everyday actions can re-mobilise, or re-align different types of actors and their relations in the world.

The first aspect a patient needs, money, correlates to Bourdieu's (1973) economic capital. Despite the fact that an NHS hip replacement is supposedly free, money is still needed for it to be a success. This is partly because it takes longer than the two- or three-nights people are allowed to stay in hospital to recover from the surgery. So, if, like June, someone has a few thousand pounds to spend on a respite home for two weeks after the hospital, they'll be okay. If someone has money, they will also probably have a freezer big enough for two weeks-worth of meals and stairways big enough to get around on crutches comfortably as the patient literature assumes. And they'll be able to purchase a perfectly aligned chair, grabbers, and shoehorns for their recovery. These other important actors in recovery are linked, vector-like, to the money a patient has in their bank account.

The second factor, correlating to Bourdieu's social capital, is that someone will have fit and healthy friends and family around them. Ideally, they'll have a daughter or a son who can afford to take time off work, or a husband or wife still fit enough in their retirement to look after them when they get discharged from hospital. These social contacts are not only needed to make a cup of tea, but also to attend to the home in which patients then have to live. Crucially, as we saw with Bet and Janet, these aren't always easy people to find. Many other resources are needed for the right people to be around; the resources to maintain a long and healthy life, good family relationships, and the security to take time off work sometimes with just a week or two's notice.

Finally, relating to Bourdieu's cultural capital, someone having a hip replacement will have the entrepreneurial drive to recover as independently as possible. People like Ray, who stick religiously to the exercises in the bible recovery booklet, know how to fix up their own trolley, and how to tinker with their raised toilet seat to make it the right fit, can sometimes get by without the other resources. This kind of drive has also famously been described as the Protestant Work Ethic – where the more personal Protestant relationship with god meant people had to prove their worth in an entrepreneurial manner (Weber, 2005). Whilst this cultural shift has been an important part of entrepreneurial capitalism, here we saw some of the materialities behind people's ability to embody this personal drive. Those who had more drive had, for example, a long career as an engineer, and the clothes and make-up to feel good in; they had lives of which they felt confident they were in control. This is because of a life-time where their bodies and actor-world have been made up by particular kinds of things. Of course, all these forms of capital are intersected, and people may have varying degrees of any one of these resources at their disposal. Some patients get away with having just one or two of them in varying degrees. But the more capital someone has, the better their experience in the NHS.

In illustrating these inequalities, I perhaps began my analysis of the NHS in a way any left-leaning reader may expect. And like the campaigners, they may conclude that the NHS, in the present, is producing such inequalities because of the encroachment of commercial interests, money-saving schemes, and the general shadow of neoliberal government. But by cutting the NHS beyond the

walls of the hospital, here I have shown that the 2.7-day target encroaches differently upon different people depending on their socioeconomic background, or rather their socio-material lives and actor-worlds. Crucially, I have highlighted that the mechanisms of producing unequal experiences of care are not new, neo-liberal ways of life, but have for a long time been theorised as integral to the socio-economic world of capital and liberalism. As suggested in Chapter 4, the NHS has never been a silo – a safe-space cordoned off from the rest of the socio-economic environment in order to put right the inequalities produced outside of it. The NHS is permeable, making it susceptible to, if not complicit in, the inequality-producing systems in which we live. This led me to look further back in time, and the strange parallel of the history of hip replacements with the NHS enabled me to understand whether this was a re-emergence of inequality, as the neoliberal rhetoric suggests, or whether some aspect of these inequalities have always been part of the NHS.

By looking simultaneously at past and present, I suggest that there are other underlying values in the NHS that go unspoken next to the loudly vocalised ones on equality, compassion, and so on. Namely, I argue that the well-practiced hierarchies of prestige, class, and gender enshrine a number of material, epistemological, and social commitments to maintain distance from patients. This hierarchy, embodied by the notion of detached concern, is usually accepted because nurses, healthcare assistants, and others placed lower down in the hierarchy are seen as closer to the patient; *they* can give the patient compassionate care. But by flattening the perceived tree-like hierarchies, I found that the everyday actions of the surgeons directly affect the patients – they act as if they are more distant but their everyday actions can affect patients as much as those of nurses, physios, and healthcare assistants. Distance, or detachment, takes work, and the forces that end up reaching patients like Bet and Janet end up pushing them off the conveyer belt. Indeed, because the performances and the concentration of material resources of surgeons is so accepted, they perhaps maintain more agency over the patients' care. Patients therefore largely get understood in relation to the surgeons, doctors, and bureaucrats, rather than as complex individuals which differ in needs and circumstance.

To bring back a little more detail, the first way in which distance is produced is through the need for medical professionals to gain prestige, to become distinguished from others to prove their worth. The friendly competition over fancy titles and silver plates is about producing the model patients with trademark hips described in Chapter 5. Here surgery as craft means patients become a piece of art, an object to show off to others as if it was a cattle market; where Charnley showed off his prize cow at the bedside in front of a circle of experts, surgeons now show patients off on PowerPoint presentations or iPhone videos. I go on to show how patients-as-art are produced in the god-like surgeons' own image. For all the talk of surgery being a team sport, I illustrate the socio-material barriers between the surgeons' social lives and those experienced by others in the theatre team. Various forms of capital are boundaried into more distant assemblages across the plain, where supercars, caviar, and garden parties full of happy families are distanced from the narrow corridors, lonely living, and box freezers experienced by the patients who are pushed off the conveyer belt. Finally, emotional distance is produced by mocking labour historically associated with women and the private home. The everyday sexism in the theatre comes to affect the lack of care given for making a patient a cup of tea when they can't do it themselves, or ensuring homes are attended to. I conclude this chapter by arguing that the notion that surgeons must practice detached concern is a manifestation of the need for them to maintain prestige, a concentration of resources, and their masculinity. These values get materialised in the NHS and in doing so cut out the elements, such as occupational therapists, box freezers, and narrow staircases – things which are important actors for patients who get pushed off the conveyer belt. The particular forms of economic, social, or cultural capital needed to experience a good hip replacement are those that are taken for granted by surgeons.

In the next chapter I illustrated how a particular kind of quantitative data is used as an apparatus for this competition. Data is seen as king – as an objective way of deciding how to produce a model patient with a trademark hip. After illustrating that this data in fact gives multiple truths, I look to what other work data does in its promise to reveal a winning formula. Firstly, I show that data enables different surgeons, patients, and prostheses to be numerically ranked, put in an order, creating a sense of friendly competition for the top spot. As a result, patients' bodies get treated as a universal body-puzzle to solve.

Tinkering with one or two patients makes sense in order to improve a surgeons' amalgamated data set. The justification for the kind of trial and error, the constant experimentation with patients' bodies, is of course that the errors will get eliminated and future generations will benefit. But rather here I argue that the competition to find constantly new and better ways of doing a hip replacement *produces* errors, the data drives people to try out new and sometimes senseless things like metal-on-metal hip implants. Crucially, data also produces an emotional barrier, where the consequences to this trial and error is seen only through a celebratedly thin data point, rather than the pain and upset experienced by a patient. Anaesthetists don't have to watch the fear, dizziness or nausea experienced by patients every time they experiment with the drug mix. Through these mechanisms, and the joining up of data with money, this quantitative data acts to produce a market where the people, things, places, and practices that get valued are once again those which are part of the surgeon's actor-world, assemblaged together in a niche where power and wealth have accumulated.

There have been lots of criticisms in the social sciences of the evidence-based medicine movement – both that it causes clinicians to take their eyes off of patients and onto paperwork and computer screens, and that it assumes all patients are all the same, rather than allowing them to be treated as individual, often complex, patients (Timmermans and Berg, 1997, 2003; Greenhalgh, Howick and Maskrey, 2014; Timmermans and Kolker, 2016). There have also been criticisms of audit cultures where so much time is spent on collecting and analysing big data sets that once again the patient gets missed (Strathern, 2000). But whilst these arguments suggest this prioritisation of data as knowledge has only really come to the fore from the 1990s, alongside the rise of 'neoliberal economics', I suggest that data has always been king in the NHS. Indeed, whilst there are more old fashioned models of medicine as art, statistics came into medicine long before the start of the NHS, with Florence Nightingale being a major pioneer (McDonald, 2001; Mcdonald, 2014). The assemblages of actors – of data points, paperwork and electronic files – may have changed in the seventy years of the NHS, but the way in which medical staff are encouraged to *relate* to their patient in the NHS has always been through the obstacle of data and the pursuit of progress.

As a result, I suggest that the dominance of this kind of knowledge produces particular kinds of care. Where Mol, Moser, and Pols (2010) describe “good care” as “persistent tinkering”, and “attentive experimentation”, here I have illustrated how these very practices can sometimes contribute to the unequal distribution of care that I illustrated in Chapter 5. Tinkering can be carried out with care for the production of data, at the detriment of care for patients. Here I argue that “good” care is not just about practices, but is also about the end goal; how one chooses to value different parts of the assemblage. It is impossible to care for everything completely at once, we have to choose which parts of the assemblage to care for in our everyday actions, where to place value.

It is perhaps unsurprising to find that an organisation as hierarchical as the NHS reproduces the inequalities I present in this thesis. But for a long time, these hierarchies have been overlooked, whilst the NHS is hailed as a beacon of equality. They are overlooked, I argue, because we have imagined that these hierarchies must be so; that certain forms of labour are more valuable than others. In this thesis I have illustrated that the forms of labour that get valued in the NHS are those associated with masculinised and rich actors – with other forms of capital that also get highly valued. Further, I suggest that the way in which we value these forms of labour - just like with ‘high’ and ‘low’ art – are a matter of taste. Where some may argue that labour gets valued according to its required training or skill, I demonstrated that there is more at play with these value judgements: using needle and thread to make clothes is given negligible value compared to using needle and thread to fix flesh. Equally, I illustrate that making someone a cup of tea can be as valuable as cutting into their skin; it all depends on what is needed by who in any given time and place. The problem is that people who need a cup of tea (such as Bet and Janet) and the current forms of capital that get them that cup of tea (prestige, money, and social networks) are distanced in current assemblages. If we don’t pay attention, if we don’t attend to the way in which these resources are distributed, then it is easy for the people and things that do get cared for, the things that do get valued, to accumulate in the same place.

The argument I present here is largely based on the intersections of the NHS that I cut through the lens of hip replacements and orthopaedic surgery.

Although it is enough that the practices I highlight here even exist within the NHS, I also have reason to argue that the impact of these kind of hierarchical assemblages go beyond the world of hips. As described in Chapter 4, I haven't only spent time in orthopaedic centres. I saw and continue to see the NHS in many ways: through my work with an educational charity where I spent time with healthcare assistants and national management figures alike; through medical visits for myself and with friends and family; and through talking to everyone I know or meet who works for or has been treated in the NHS. The NHS is a difficult field site to escape. From these experiences I hear of people being pushed off the conveyer belt in their stroke rehabilitation or visits to Accident & Emergency; I hear how the work of nurses or healthcare assistants is undervalued across the NHS; and when I bring up stories from my thesis with medical professionals they are met with familiarity rather than surprise. Whilst the practices and mechanisms I illustrate here may differ in severity across different specialities, the rigid chain of command and dominance of objective data is common throughout the NHS, and, I have argued, is therefore likely to have some consequences for patient care.

Back in the Olympics opening ceremony, the NHS was very aptly placed after the inequalities of Industrialisation and the royal family, as a kind of sticking plaster. But as I have illustrated here, far from being a beacon of equality, *putting right* the inequalities experienced by free market capitalism (and even the remnants of Christian-inflected feudalism), I found that material relations embedded in the knowledge and everyday practices of the NHS *reproduce* class disparities. We talk about neoliberal inequalities as sometimes being a revival of the Victorian era, or a revival of classical liberal economics that was around before people like Keynes suggested we need to intervene in the market. I argue, however, that there is a naivety in this Keynesian mentality – branding segments of society and infrastructure “public” or “the NHS” doesn't mean these parts can be siloed off. These parts are fluid, and work in relation with other actors and the values they bring with them; many of which are embroiled in capitalist assemblages. Thinking back to the nationalism of the NHS I also fear that this swell of pride and emotion acts as a pacifier for the everyday inequalities produced outside of the walls of NHS hospitals; “well at least we're not like America, we do have an NHS”. The sticking plaster of the NHS is one of those crappy ones that fall off with a single wash. Through finding other ways

of seeing the NHS, allowing ourselves to fall out of love with it, perhaps there are ways we can re-imagine the NHS, in order to remake it differently.

Overthrowing from unexpected places

In illustrating that the NHS enacts many aspects of capitalism, I am not trying to argue that we are enveloped in some Foucauldian dystopia where we can't escape capitalist logics. Rather, I illustrate that these inequalities are produced by practices, by assemblages of healthcare workers, paperwork, patients, and 'invisible dog' leg lifters. There isn't a spectre or an overarching inescapable discourse; there are a series of actions and interactions which come to make some people receive more care than others. Here I argue that if these practices can produce this inequality then, by definition, similarly everyday (though sometimes difficult-to-recognise) practices can also dismantle it. If hierarchies are practiced through the value we place on people, labour, and things, then we can unmake them by realigning our values and the way in which they shape our practices. To be clear here, I am not referring to values as some ephemeral overarching type thing; like how I used to shout loudly for equality on a march to save the NHS. Rather, these values get done through everyday practices – through deciding which people and things to attend to within an assemblaged world.

It is often harder to think about the everyday things that can make positive change. The "butterfly effect" is a common thought experiment, but usually results in us thinking about the negative consequences something can have – a small amount of contaminant substance in a vast sea or the food we eat can cause havoc. Or there's the old time-travel trope in *Back to the Future* and all its sci-fi episode spin-offs where meddling in the past can have stark consequences for the present. But the possibility of us being a contaminating molecule of positive change in a vast sea of the status quo is usually laughed at. When people talk capitalism, neoliberalism, or even the recession, our small attempts to do good are often seen as non-consequential or powerless. "You can't change the world," I sometimes hear people say in a give-up tone, as if the world, and the hierarchies of the NHS, are independent of our actions.

Fischer (2009) illustrates the ludicracy²⁴ in the totality of this argument by suggesting we can often imagine the end of the world in some apocalyptic manner before we can imagine the end of the current economic system of capitalism. This, I suggest is because many people for a long time have been made to feel as if they don't have power through these imagined hierarchies, when in fact they do. Lancione (2017), for example, takes "minor politics" seriously, using Deleuze and Guattari's concept of how the molecular goes back into affecting the molar (whole), and that the molar comes back into affecting the molecular. This is not, Lancione insists, the same as talking about the micro and the macro. The micro and the macro create power hierarchies before we have even begun, when rather, Singleton and Law (2013) suggest the macro is *inside* the micro. The macro gets enacted through everyday actions. Whilst talking specifically about ANT, Singleton and Law (2013) suggested that "[by exploring] the contingencies of power it also generates tools for undoing the inevitability of that power. More strongly, it starts on the process of undoing its inevitability". And indeed, researchers such as Tsing (2015), Cornwall (2018) and Puig de la Bellacasa, (2017) have picked and gathered many examples of practices which act against or exist outside the system of capitalism.

I build on these ideas by looking at how everyday practices can overthrow, or at least topple assemblages which have accumulated in places seemingly as inaccessible as behind the glass cabinet in the museum for the Royal College of Surgeons. To be clear, when I talk about minor political actions which overthrow power, I am not talking about someone contributing to a recycling scheme that has already been organised by the state. I'm talking about *overthrowing* powerful assemblages in order to dismantle and redistribute them. First, it is important to note that overthrowing is about the removal of power, not placing someone else in the same spot. It is specifically not about usurping the Prime Minister and putting Jeremy Corbyn in their place. Nor is it about resurrecting a refashioned National Health Service Bill to get implemented by a new Prime Minister. Second, overthrowing power literally means to knock it down and to throw the accumulated assemblages, which make up practices of care and power, into many different directions. This allows

²⁴ Definition: Ludicracy. *Noun*. 1. A system of governance where ludicrousness rules. Example: Only in a ludicratic world could metal-on-metal hip implants be seen as a good idea.

us to realign our values to different parts of the assemblage and redistribute who and what gets cared for.

So here, I follow activist ethnographer footsteps and present a final couple of episodes of data where I identified some of these more rebellious practices. Although I have to admit outright that these are sparser than I would have liked. This, I suggest, is because the more we believe in tree-like hierarchical structures such as the NHS, where the upper branches appear out of reach, the more we imbue them with power. Because this view is so prevalent, due to the visualisation of the NHS as a traditional institution big enough to face one of Beveridge's Five Giant's, many people I met didn't currently feel very powerful in their everyday actions as a healthcare worker – including, sometimes, the surgeons themselves. But I suggest the following examples both have a real effect on other people's lives, and are a good place to start to think about healthcare activism differently.

Like Tsing (2015), I found revolt in the most unexpected of places. Through my rhizomatic style of finding research sites I was on my way to meet Dean, the manager of the Sterile Services Department (SSD) for the local hospital. When I turned up it was hard to find. I went to the building and found a lift to go two floors below ground, which was weirdly floor four. But there was no button for this floor. I was worried about being late, so I went to the volunteer working at the desk of this subsidiary hospital building. She flicked through her folder looking for Dean and eventually found a number. Five minutes later a smiley-faced well-built man appeared from a sealed-off door. He shook my hand and ushered me through and into another lift, taking me down to this mysterious department. "We're a Cinderella unit down here!" he explained. Huh? "Yeah everyone just thinks their equipment arrives, no one thinks that it's us down here doing it all!"

I wanted to see this hidden labour, so I followed a set of hip instruments round the process of decontamination and sterilisation, switching clogs and clothing between 'dirty' and 'clean' rooms on the way. One of the guys working there showed me how they started by counting the instruments, one by one, against a check list. He knew the name of every single instrument – the Mead, Heath, and Partsch mallets, and the Williger and Halle bone curettes. It was all way

over my head; and these were just the instruments they had to remember for hips. As we went through, he'd have to scrub off the blood stains and bits of flesh, and then check them carefully for damage. He then packed the instruments into a labelled tray and put them into the washer inserted into the wall. On the other side of the wall with a change of shoes, another worker showed me how they took them out to cool before packing them back up. I watched as her and a colleague put instruments back together and in place in their original trays through muscle memory, checking each one off as clean and present. "I don't know what these ones are for," she commented. I explained what I knew from my life in theatre and realised that though the workers in front of me knew these instruments well, they knew them differently from those working in the operating theatre. Finally, the trays are wrapped double in crepe-like paper and sent to the sterilising machine. Like the washer, these machines have to be carefully calibrated and monitored daily to ensure they are at the exact right temperature across the whole space. It is a careful process to ensure these instruments are then delivered clean to each department.

Dean explained his recent fight with the hospital to get these workers classed as "Health Scientists". When I first met him most of his team were classed as "ancillary workers": "ancillary workers?! They're making surgery safe!" he exclaimed. As a result, many of his staff were on the lowest two rungs of the pay grade – Bands One and Two which amounted to between £15,404 and £18,157 per year²⁵. This behind-the-scenes work that ensures safe surgery isn't valued in the NHS. By the time I left Dean I had got confirmation that his staff could now be classified as Health Scientists once he'd put them through the appropriate training. They could now be classed as Bands Three and Four, amounting to between £16,968 and £22,683 per year. A small win, perhaps, but certainly one that could make thousands of pounds difference to his employees' lives, and one that ensured more credit was given to the labour going on in this Cinderella unit. This is what I class as everyday activism.

But Dean wasn't all about spending more money; he cared about redistributing value. When I first met him, he told me excitedly about some of the ridiculous ideas in the industry which he thought were due to people trying to make a

²⁵ The median average earnings for a full-time employee in 2017 was £28,677 according to the Office for National Statistics (2017).

profit. There were the big private centralised Sterile Services sites run by Sodexo which were meant to service larger numbers of hospitals; but this was resulting in theatres, staff, and patients waiting around for clean instruments to come from vans which were stuck in traffic. There were salesmen that would come knocking on his door trying to sell the best-rate latex gloves or the latest equipment – a dehumidifier-style machine to sterilise the air in the theatre. On further research he found that this machine left a dangerous debris on ledges which could burn through skin. Given this setting, Dean was doing everything he could to make sure that these companies didn't take advantage of the department, or the hospital. "I mean these autoclaves cost eighty grand before the recession and now they've reduced their price to fifty! Shows how much profit they were making before!" he urged. They also ended up swapping in alternative-brand liquid for the chemical sterilisers which they first tested to ensure there was no drop in quality. This caused a bit of upset as his manager's wife worked for the company who lost the contract. Whilst I hoped the companies didn't take that price difference off their labour costs, it was clear Dean genuinely cared about keeping surgery and healthcare safe for patients and ensuring money, and the value associated with it, was distributed in the right places.

I also met Dean's colleague, Karen, who told me about how she and the team were always having to stand up against the traditional hierarchies of NHS. She told me about the times the surgeons would bring a new piece of kit – a saw, or a drill one of their reps had sold them – and they hadn't even checked to see if the SSD unit have the right equipment to sterilise it again and again. She pointed to a shelf in the office full of boxed Olympus endoscopes. On opening one up you could see that the outside lacquer of the tube that was meant to go into someone's stomach was all peeling off. There were other times where they would find surgeons or theatre assistants trying to sneak single-use instruments through in the trays to be sterilised – cutting corners to reduce costs was not the right way to distribute value in the NHS. Karen and her colleagues had to stand up to surgeons, and re-align the labour practices and things which get cared for in assemblages relating to hip replacements, because they saw it as vital for the safety of patients.

Karen told me about how she once had to run in and stop an operation when they were already draped up, patient anaesthetised. The theatre team were about to start operating with unsterilized instruments. The surgeons had ordered one of the younger staff to take the instruments out of the autoclaves early so they could get going with the op. “They see it like a dishwasher!” she told me in gothic-amusement. They learn at medical school that it only takes three minutes at the right temperature to sterilise something, but they don’t realise that the whole cycle actually takes fifty-five minutes. It takes that long to ensure every millimetre of the autoclave reaches the right temperature. But the surgeons don’t listen, so they take it out early. Karen told me how she almost got fired for running into the theatre, the surgeon was livid. They put her on a tribunal and eventually she heard through the grapevine that they had to admit she was in the right. But it was a close call. By going against the hierarchical boundaries of surgeon-knows-best, and intruding on the surgeons’ territory in theatre, Karen had broken the boundaried assemblage made by surgeons and their ballets. In doing so she not only stopped a patient from potentially getting an infection, but also realigned which knowledge is valuable, and which bodies are allowed to be present where. Through disrupting and rearranging the local redistribution of wealth and the value attached to autoclaves and the people that tend to them, both Dean and Karen practiced what we might call minor, or everyday politics.

Others I met work against the grain from a more familiar place in the assemblage, as part of the team implementing the Rapid Recovery Programme. In Chapter 5 I illustrate how some of the physios are so intent on maintaining the target of releasing the patient within 2.7 days that they would send people home when they weren’t ready to go and look after themselves in a house on their own. This was just one of the ways in which data is king. There was Bet whose own reservations and fears of going home were ignored, Janet who may or may not have been able to get into bed the night she was discharged, and Fred who went home with an elaborate system of walkers and crutches to enable him to get up and down the stairs. What I missed out of these descriptions were the fewer instances I saw of people rebelling against this data. Of course, there were the nurses you may remember protesting against Bet’s discharge that day in the team meeting. But there was one physio in

particular, Charlie, who did a lot of everyday politics in the way she treated patients.

It was about lunch time the day after Juliette's operation and Charlie was going back to see her as she wasn't able to get out of bed in the morning for the class. She was one of the seven patients that hadn't reacted well to Mr A's experimentation with the anaesthetics (see Chapter 7). Juliette felt too sick and dizzy every time she tried to get up. So before Charlie even tried again, she went in to tell Juliette she was going to try and help her stand for a second time. She sat her up in bed and left her for ten or fifteen minutes, so her blood pressure had time to settle – she was attentive to Juliette and had learnt her lesson from earlier in the day. When we went back Charlie checked Juliette's blood pressure and helped her swivel her legs round to sit on the side of the bed. Again, we stopped for a bit and chatted. Meanwhile Charlie took her blood pressure again... hmm it's gone down a bit but it's still okay. Just wait a few more minutes. Slowly, slowly. Charlie swung the frame opposite to where Juliette was sitting so she could start to stand up – okay so use the strong part of your hands to push up from the bed – that's it, big push and transfer your hands to the frame, that's it. But very quickly Juliette got sick again and the gradual process of getting her out of bed was done in reverse. "Don't worry, just rest today and we'll start again later today or tomorrow, don't push yourself too hard." Charlie stayed to make sure she was okay, and they left it until another time. When we spoke about it afterwards there was no mention of the 2.7-day target.

Just like when James tried to get Fred up the stairs, I was amazed at the tinkering; the gradual, bit by bit way in which Charlie tried to help Juliette get out of bed. But unlike some of the other physios, Charlie had closed the door, closed the network on the data and the drive to get people out of hospital as quickly as possible. Only the immediate comfort of the patient was at stake, as well as the things in her room which enabled that. As a result, the direction of travel for both of these practices was different. These contrary practices had an effect on how Fred, Bet, Janet, and Juliette experienced the Rapid Recovery Programme, and the effects the current government, legislation, and the culture of efficiency has on the NHS – these physios do politics. It wasn't that Charlie was being deliberately 'political'. She wasn't a campaigner or even on a particular side of the argument on the NHS. She was, though, always curious

and clearly enjoyed reflecting on her practice and questions of power and organisation during our conversations. Her practices were concerned with making Juliette comfortable, and valued putting the patient, rather than the data, first. In doing so, she attended to the parts of the assemblage that others do not.

There were other moments, too, when I saw Charlie act against the grain – and like Dean, she redistributed wealth in the process. When the Fernwick Centre started charging fifteen pounds for some of the equipment to take home - the grabber, the shoehorn, and the sock-putter-onner - I saw her give the pack away for free. The patient was clearly in need of it and had expressed a discomfort at the price. Similarly, when there was a visitor to the hospital (not a patient) who was clearly struggling to keep a sprained arm in position without a sling, Charlie went to the store cupboard and found one for her. She saw someone in the assemblage in need, and found ways to redistribute the resources to her. Another nurse in the local general hospital also quite literally redistributed resources. She would insist on continuing to make home visits to patients to check they were okay, despite the fact that the hospital was trying to stop this. In doing so she shifted the hierarchical assemblages; she collapsed or at least evaded the hierarchical order from above, and moved NHS resources to the private homes of patients that need attending to. Whilst still sparse, these minor political actions come to make the macro, come to affect kind of care experienced by different people in the NHS. People such as Karen, who force other kinds of relations into surgeons' actor-worlds, and Charlie, who redistributes resources and relations to needed places, re-align the assemblages that make up the inequalities I have described in the NHS. Rather than fight for something in the future, these actions, along with Dean and Karen's, affect what kind of care people get right now – it is a politics of the present.

A new politics for the NHS

In this thesis I have suggested that rather than save or defend an NHS from the 1950s (a time where many of the inequalities I spoke about were exacerbated),

that we should look at how to make a better healthcare service in the present. Rather than just plan spectacular marches outside the gates of Westminster, we need to make space to reflect on our actions and give people strength and solidarity in numbers to act differently within their everyday. In this last chapter I have illustrated how Dean managed to increase the wages and status of his employees and Karen undermined the authority of surgeons to ensure a patient had safe surgery. I showed how Charlie closed the door, cut the network on the target to get patients out in 2.7 days because she was attending to Juliette. And I explained how she and other nurses I met went to go and visit patients at home even when the hospital management was trying to reduce this practice. Whilst these are just a few sparse examples of more rebellious everyday actions, they all managed to overthrow perceived power dynamics – the hierarchies that are so often imagined and enacted in the NHS, and redistribute resources and agency elsewhere.

As explained, I draw on practice theory and activist ethnographers not only to see how inequalities are produced, but to think about how we can increase the prevalence of these overthrowing practices. Part of what I am trying to do in this thesis is to encourage people that in a world where hierarchies are made through practice, their actions *do* matter. It is not simply that various policies cascade their way down through bureaucratic power structures to increasingly restrict our movements the further down we are positioned. Policy can be enacted in multiple ways. As Law and Singleton (2015) illustrate that Foot and Mouth Disease policy was enacted by farmers, labs, paperwork and particular ways of analysing data, here we see NHS policy is enacted by the fifteen-pound equipment packs, the discarded Olympus endoscopes, and the Cinderella sterilisation unit. As we saw with the differing actions of James and Charlie, these policies can be enacted in multiple ways; the policy has multiple realities.

This is perhaps why so many policy makers worry about implementation – a failure for the policy to get enacted in the way policy makers set out in their documents is inevitable, for the policy paper and the Act of Parliament are just two agents of many in how policy gets done. This is where Cornwall (2019) suggests any employee can “act anthropologically” in their workplace to understand our relations from inside an institution, or where Law and Singleton (2013) suggest we can explore the contingencies of power, to

strategise and locate the places to make change. In doing so we can start to have a little more faith that our own actions can change and adapt power structures, rather than just reproduce the inequalities I have illustrated in this thesis. Power is only constructed in concentrated places when we begin to imagine it as such, and continue to act in deference to NHS pay scales or people that refuse to make a cup of tea.

However, as well as draw on the practices of tinkering, I also argue that ethnographers, healthcare workers and activists alike also need to think about the values guiding their actions. In this thesis I have suggested we retain the value of equality that campaigners support, but unravel it from a blind (and nationalistic) love for the NHS. I have suggested that labour practices should also be valued more equally – that, depending on the time and space, making someone a cup of tea is just as valuable as having someone in control of cutting and tying your ligaments. Having some kind of emotional attachment, rather than detached concern, is also something all healthcare workers need to take on, surgeons, physios, and healthcare assistants alike. As described in Chapter 6, the negative consequences of detached concern, particularly if coupled with an unequal valuation of labour, are almost always on patients who don't have a home life that surgeons experience themselves. Charlie couldn't have cared for Juliette if she hadn't known about what happens to the body when blood pressure drops and that standing up was about to make that a whole lot worse. By cutting and flattening the NHS, I also hope to have made a case for re-aligning which actors should be incorporated into different staff and patients' actor-worlds, and which people, things, and practices we should value and attend to.

Critical to this argument about finding places to overthrow accumulated assemblages, is that this kind of action is not usually very easy. Unlike Moser's idea of a minor, or more gentle politics, I *also* want to recognise that there are often great tensions for those wanting to go against the status quo. In the short ethnographic episodes presented in this chapter we saw that Karen almost got dismissed and Dean fell out with his manager; they both ended up in volatile positions. It is also hard to think beyond the logics and narratives which underpin so many of our everyday actions; James was still concerned for his patients and wanted to do his job well, but our contributions to inequality or equality are not always obvious and clear when we're going about our everyday

lives. It takes work and reflection to understand how these inequalities get reproduced and how we might be able to contribute to change.

These kinds of actions do, however, come easier the more that others around us are acting in similar ways. The more visible the lines of flight from a colleague's actions to differing outcomes for patients, the less people will keep thinking like trees. And the more people you have around you to practice thinking out of context, the easier it becomes to identify the ways in which your actions will impact on others in the assemblage. Whilst I'm particularly wary of being part of the problem of responsabilisation – I don't want to force or manipulate anyone into doing something they don't want to because they feel they have to – I do think there is a place for remembering the power of our everyday actions. There is clearly a lot of energy and passion about the NHS which I documented in the very introduction to this thesis; I just wonder if there are better ways to put this care, love, and energy to use.

In Morecambe Bay, for example, hospital directors refused to make further cuts to their budget because it would make the service unsafe for patients. If every budget holder or employee of a budget holder across the country made a similar stand then it would become pretty difficult for the government to replace every rebellious person with someone from NHS Improvement. There are also great things going on at Roehampton University where they are running workshops with surgeons to get them to recognise their emotions. If every surgeon, nurse or physio refuses to send a patient home to an unsure environment, and patients are given the support and backing of community groups to refuse to be discharged, then we may be able to start taking more direct action in the NHS. We can, collectively, improve the distribution of (health)care – the authority of surgeons over nurses is made up of everyday practices, and the patient leaflets that are infused with the government's thinking are not actually printed by the government. We can choose, and find ways, to do things differently.

Many people have said to me that I'm merely pointing out the inequalities that exist across the whole of the UK, and even beyond these equally fluid borders. What I have demonstrated in this thesis is not particular to the NHS. I can't tackle the world in a thesis. But as I have shown, the NHS is made up of lots of people and things acting upon each other. If we spend a little more time thinking

about these actions, then perhaps we could have an NHS that exudes values of equality: where the expertise of care isn't separated from other skills; where the home patients return to is more widely recognised; where we don't hire some people based on their ability to give, and others to resist, compassion. Of course, policy papers can help as one actor amongst many, and I want to leave more detailed ideas of what a more equality-minded NHS might actually look like in practice open for discussion. The world is a rhizome, not a tree. Rather than ignore the fluid boundaries of the NHS, and have capitalist logics and inequalities seep in, I suggest we make use of these fluid boundaries, work on an NHS with different values, with different distributions of resources and care practices, and encourage them to seep out. We should use the pride and passion people have about the NHS and healthcare and turn it forward, away from the nostalgic 1950s. This way, we may find that healthcare in the UK can be a beacon of equality, flickering out ideas, and throwing around assemblages, that act in contradiction to capitalism. Rather than replicate the world the NHS was built to rectify, we could use the energy around the NHS to start practicing alternatives.

REFERENCES

Abraham, M. (no date) *Interview: Remembering Sir John, The John Charnley Trust*. Available at: <http://johncharnleytrust.org/abraham.html> (Accessed: 9 August 2019).

Abu-Lughod, L. (1999) *Veiled sentiments: Honour and poetry in a bedouin society*. Berkeley: The Regents of the University of California.

Adams, V. (2016) *Metrics: What counts in global health*. Edited by V. Adams. Durham & London: Duke University Press.

Alderwick, H. et al. (2016) *Sustainability and transformation plans in the NHS: How are they being developed in practice?* London. Available at: https://www.kingsfund.org.uk/sites/default/files/field/field_publication_file/STPs_in_NHS_Kings_Fund_Nov_2016_final.pdf.

Alvesson, M. (2009) 'At-home ethnography: Struggling with closeness and closure', in Ybema, S. et al. (eds) *Organizational Eehnography: Studying the complexities of everyday life*. London: Sage Publications Ltd, pp. 146–162.

Anderson, B. (1983) *Imagined communities: Reflections on the origin and spread of nationalism*. London: Verso Books.

Anderson, J., Neary, F. and Pickstone, J. V (2007) *Surgeons, manufacturers, and patients: A transatlantic history of total hip replacements*. London: Palgrave Macmillan.

Appadurai, A. (1986) *The social life of things: Commodities in cultural perspective*. Cambridge: Cambridge University Press.

Arnold-Forster, A. (2017) 'Operating with feeling: Emotions in contemporary surgery', *The Bulletin of the Royal College of Surgeons of England*, 100(1), pp. 12–15. doi: 10.1308/rcsbull.2018.12.

References

Arnold-Forster, A. (2019) 'Sexism in surgery: Little has changed', *The British Medical Journal Opinion*, 24 January. Available at: <https://blogs.bmj.com/bmj/2019/01/24/agnes-arnold-forster-sexism-in-surgery-little-has-changed/?fbclid=IwAR3uHJGk0-KBVHPHY8R-T4nwCJHzd8wqULm0DXZb2VzEbPqCWriV0KJGfOM>.

Arnold-Forster, A. and Moulds, A. (2018) 'Surgery and emotional health', *The Bulletin of the Royal College of Surgeons of England*, 100(6), pp. 265–267. doi: 10.1308/rcsbull.2018.265.

Atkinson, W. and Deeming, C. (2015) 'Class and cuisine in contemporary Britain: The social space, the space of food and their homology', *Sociological Review*, 63(4), pp. 876–896. doi: 10.1111/1467-954X.12335.

Bagnall, S. (2018) 'The NHS at 70'. United Kingdom: BBC. Available at: <https://www.bbc.co.uk/programmes/b0b8cdgn>.

Banks, C. (2018) 'Working through ethical and emotional concerns and uncertainties in ethnographic research with people with learning disabilities', in Garnett, E., Reynolds, J., and Sarah, M. (eds) *Ethnographies and health: Reflections on empirical and methodological entanglements*. Cham: Palgrave Macmillan, pp. 19–34.

Barnes, S. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. 54–56.

Batchelor, J. and Halas, J. (1948) *Your very good health*. United Kingdom: British Film Institute. Available at: <https://player.bfi.org.uk/free/film/watch-your-very-good-health-1948-online>.

BBC (2012) *50 years of hip surgery*. Available at: <https://www.bbc.co.uk/news/health-20453892> (Accessed: 10 August 2019).

BBC (2018) *NHS 70: Aneurin Bevan Day celebrations in Tredegar*, *BBC News [Online]*. Available at: <https://www.bbc.co.uk/news/uk-wales-south-east-wales-44658282> (Accessed: 8 August 2019).

References

- BBC Newsbeat (2019) 'Milk ducts: Image of female breast anatomy goes viral', *BBC News* [Online], April. Available at: <https://www.bbc.co.uk/news/newsbeat-48051236>.
- Becker, H. S. *et al.* (1961) *Boys in white: Student culture in medical school*. Chicago: University of Chicago Press.
- Belam, M. (2017) 'Jeremy Corbyn's Nye Bevan quote is pure fiction', *The Guardian*, May. Available at: <https://www.theguardian.com/politics/2017/may/17/jeremy-corbyn-tweets-fake-nye-bevan-quote-on-fighting-for-the-nhs>.
- Beynon, J. (2002) *Masculinities and culture*. Buckingham: Open University Press.
- Bijker, W. E. (1997) 'Of Bicycles, Bakelites, and Bulbs: Toward a Theory of Sociological Change'. Cambridge, Massachusetts and London, England: The MIT Press.
- Blackman, L. (2008) 'Affect, relationality and the `problem of personality`', *Theory, Culture & Society*, 25(1), pp. 23–47. doi: 10.1177/0263276407085157.
- Blackman, L. (2010) 'Embodying affect: Voice-hearing, telepathy, suggestion and modelling the non-conscious', *Body & Society*, 16(1), pp. 163–192. doi: 10.1177/1357034X10376150.
- Bloom, N. *et al.* (2011) 'In defence of our research on competition in England's National Health Service', *The Lancet*, 378, pp. 2064–2065. doi: 10.1016/S0140-6736(11)61708-X.
- Borgstrom, E. (2018) 'Using an ethnographic approach to study end-of-life care: Reflections from research encounters in England', in *Ethnographies and health: Reflections on empirical and methodological entanglements*. Cham: Palgrave Macmillan, pp. 67–84.
- Bosk, C. L. (1979) *Forgive and remember: Managing medical failure*. Chicago: University of Chicago Press.

References

- Bourdieu, P. (1973) 'Cultural reproduction and social reproduction', in Brown, R. (ed.) *Knowledge, education, and cultural change*. London: Tavistock, pp. 71–84.
- Bourdieu, P. (1977) *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.
- Bourdieu, P. (1998) 'Is a disinterested act possible?', in *Practical reason: On the theory of action*. Stanford: Stanford University Press, pp. 75–91.
- Bourdieu, P. (2007) *Sketch for a Self-Analysis*. Cambridge: Polity Press.
- Bourdieu, P. (2010) *Distinction: A social critique of the judgement of taste*. London: Routledge Classics.
- Boyd, J. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. 176–177.
- Boyle, D. (2012) *London 2012 summer olympics opening ceremony*. United Kingdom: Olympic Broadcasting Services. Available at: <https://www.youtube.com/watch?v=4As0e4de-rI>.
- Boyle, S., Lister, J. and Steer, R. (2017) *Sustainability and transformation plans. How serious are the proposals? A critical review*. Available at: http://www.lsbu.ac.uk/_data/assets/pdf_file/0019/114409/sustainability-and-transformation-plans-critical-review.pdf?t=1.
- Bradby, H. (2009) *Medical sociology: An introduction*. London: Sage Publications.
- Briggs, T. (2015) *A national review of adult elective orthopaedic services in England: Getting it right first time*. Available at: <http://gettingitrightfirsttime.co.uk/wp-content/uploads/2017/06/GIRFT-National-Report-Mar15-Web.pdf>.
- British Orthopaedic Association (2019) *Fellowships and Awards*. Available at: <https://www.boa.ac.uk/learning-and-events/fellowships-awards.html>

References

(Accessed: 8 August 2019).

Brown, M. (2015) 'The compassionate surgeon: Lessons from the past', *The Bulletin of the Royal College of Surgeons of England*, 98(1), pp. 28–29. doi: 10.1308/rcsbull.2015.28.

Brown, M. (2017) 'Redeeming Mr. Sawbone: Compassion and care in the cultures of nineteenth-century surgery', *Journal of Compassionate Health Care*. *Journal of Compassionate Health Care*, 4, pp. 13–20. doi: 10.1186/s40639-017-0042-2.

Bynum, W. F. and Porter, R. (1997) *Companion encyclopedia of the history of medicine*. Edited by W. F. Bynum and R. Porter. London: Routledge.

Caldwell, S. E. M. and Mays, N. (2012) 'Studying policy implementation using a macro, meso and micro frame analysis: the case of the Collaboration for Leadership in Applied Health Research & Care (CLAHRC) programme nationally and in North West London', *Health Research Policy and Systems*, 10, p. 32. doi: 10.1186/1478-4505-10-32.

Callaghan, J. J. (2016) 'Contribution: From the President of the International Hip Society', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. II–III.

Callon, M. (1998) 'Introduction: The embeddedness of economic markets in economics', in Callon, M. (ed.) *The Laws of the Markets*. Oxford: Blackwell Publishers, pp. 1–58.

Campaign for the NHS Reinstatement Bill (2019) *Campaign for the NHS Reinstatement Bill*. Available at: <http://www.nhsbillnow.org/> (Accessed: 6 August 2019).

Candea, M. (2010) 'I fell in love with carlos the meerkat: Engagement and detachment in human-animal Relations', *American Ethnologist*, 37(2), pp. 241–258. doi: 10.1111/j.1548-1425.2010.01253.x.

Canguilhem, G. (1991) *The Normal and the pathological*, New York. New York:

References

Zone Books.

Caplan, Arthur, L. (1992) *If I were a rich man could I buy a pancreas? And other essays on the ethic of health care*. Indiana: Indiana University Press.

Carter, Lord (2016) *Operational productivity and performance in English NHS acute hospitals: Unwarranted variations*. London. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/499229/Operational_productivity_A.pdf.

Cartwright, N. (2007) 'Are RCTs the gold standard?', *BioSocieties*, 2(1), pp. 11–20. doi: 10.1017/s1745855207005029.

Castillo, R. C. (2015) 'The emotional, political, and analytical labor of engaged anthropology amidst violent political conflict', *Medical Anthropology: Cross Cultural Studies in Health and Illness*. Routledge, 34, pp. 70–83. doi: 10.1080/01459740.2014.960564.

Cavendish, M. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, p. 209.

Charnley, J. (1973) 'Letter to Lou Brady', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. 36–37.

Charnley, J. (1975) 'Letter to Joseph Hajek', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, p. 39.

Charnley, J. (1978) 'Letter to Dr. H. W. Hamilton', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, p. 225.

Cohen, D. (2012) 'How safe are metal-on-metal hip implants?', *British Medical Journal*, 344, p. e1410. doi: 10.1136/bmj.e1410.

Conrad, P. (1975) 'The discovery of hyperkinesis: Notes on the medicalization of deviant behavior', *Social Problems*, 23(1), pp. 12–21. doi: 10.1525/sp.1975.23.1.03a00020.

References

- Conrad, P. (1992) 'Medicalization and social control', *Annual Review of Sociology*, 18, pp. 209–232.
- Cooper, Z. *et al.* (2011) 'Does hospital competition save lives? Evidence from the English NHS patient choice reforms.', *Economic Journal*, 121(August), pp. F228–F260. doi: 10.1111/j.1468-0297.2011.02449.x.
- Cornwall, A. (2018) 'Acting anthropologically: Notes on anthropology as practice', *Antropologia Pubblica*, 4(2), pp. 3–20.
- Corrigan, O. (2003) 'Empty ethics: The problem with informed consent', *Sociology of Health and Illness*, 25(7), pp. 768–792. doi: 10.1046/j.1467-9566.2003.00369.x.
- Cowan, H., Brenman, N. and Kühlbrandt, C. (2019) 'Re-politicizing public health: A workshop for early career ethnographers, 1-2 October 2018', *Anthropology Today*, 35(1), p. 28. doi: 10.1111/1467-8322.12486.
- Craven, H. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. 60–68.
- Craven, H. (no date) *Interview: Remembering Sir John*. Available at: <http://johncharnleytrust.org/craven.html> (Accessed: 8 August 2019).
- Crown Office Chambers (2016) *Wilkes v DePuy International Limited: Major decision under the Consumer Protection Act 1987*. Available at: <https://www.crownofficechambers.com/2016/12/06/wilkes-v-depuy-international-limited-major-decision-consumer-protection-act-1987/> (Accessed: 9 August 2019).
- Culley, L. *et al.* (1999) 'Caribbean nurses: Racisms, resistances and healing narratives', in *Practicing identities: Power and resistance*. London: Palgrave Macmillan, pp. 155–179.
- Cupic, Z. and Cupic, J. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. 235–237.

References

Curwen-Walker, P. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. 141–157.

Cussins, C. (1996) 'Ontological choreography: Agency through objectification in infertility clinics', *Social Studies of Science*, 26, pp. 575–610.

Daston, L. and Galison, P. (2007) *Objectivity*. New York: Zone Books.

Davis, J. *et al.* (2013) 'Act now against new NHS competition regulations: An open letter to the BMA and the Academy of Medical Royal Colleges calls on them to make a joint public statement of opposition to the amended section 75 regulations', *British Medical Journal*, 346, p. f1819. doi: 10.1136/bmj.f1819.

Davis, J., Lister, J. and Wrigley, D. (2015) *NHS for sale: Myths, lies, and deception*. London: Merlin Press.

Dean, S. (2019) *Don't freak out about that viral 'milk duct' image, it's not actually correct*, *Science Alert*. Available at: <https://www.sciencealert.com/don-t-freak-out-about-that-viral-milk-duct-image-it-s-not-actually-correct> (Accessed: 30 June 2019).

DeLanda, M. (2006) *A new philosophy of society: Assemblage theory and social complexity*. London: Continuum.

Deleuze, G. and Guattari, F. (1987) 'Introduction: Rhizome', in *A thousand plateaus*. Minneapolis: University of Minnesota Press, pp. 3–28.

Department of Health (2005) *A short guide to NHS Foundation Trusts*. London. Available at: https://www.wvl.nhs.uk/Library/Foundation_Trust/Foundation_Trust_Guide.pdf.

Dixon-Woods, M. *et al.* (2007) 'Written work: The social functions of Research Ethics Committee letters', *Social Science and Medicine*, 65, pp. 792–802. doi: 10.1016/j.socscimed.2007.03.046.

Dixon-Woods, M. and Ashcroft, R. E. (2008) 'Regulation and the social licence

References

for medical research', *Medicine, Health Care and Philosophy*, 11(4), pp. 381–391. doi: 10.1007/s11019-008-9152-0.

Donaldson, L. (2008) 'Profession of medicine', *British Medical Journal*, 336(7643), p. 563.

Driessen, A. (2018) 'Sociomaterial will-work: Aligning daily wanting in Dutch dementia care', in Krause, F. and Boldt, J. (eds) *Care in healthcare: Reflections on theory and practice*. Palgrave Macmillan, pp. 111–134. doi: 10.1007/978-3-319-61291-1.

Dyer, S. and Demeritt, D. (2009) 'Un-ethical review? Why it is wrong to apply the medical model of research governance to human geography', *Progress in Human Geography*, 33(1), pp. 46–64. doi: 10.1177/0309132508090475.

Elwyn, G. *et al.* (2010) 'Implementing shared decision making in the NHS.', *British Medical Journal*, 341, p. c5146. doi: 10.1136/bmj.c5146.

Epstein, M. (2006) 'The ethics of poverty and the poverty of ethics: The case of Palestinian prisoners in Israel seeking to sell their kidneys in order to feed their children', *Global Medical Ethics*, 33, pp. 473–474. doi: 10.1136/jme.2006.017855.

Epstein, M. (2008) 'Tell us what you want to do, and we'll tell you how to do it ethically' — Academic bioethics: Routinely ideological and occasionally corrupt', *The American Journal of Bioethics*, 8(8), pp. 62–65. doi: 10.1080/15265160802317990.

Erikson, T. H. (2006) *Engaging anthropology The case for a public presence*. London: Berg Publishers.

Fischer, M. (2009) *Capitalist realism: Is there no alternative?* Ropley, Hants: Zero Books.

Fluehr-Lobban, C. (2015) 'Informed consent in anthropological research: We are not exempt', *Human Organization*, 53(1), pp. 1–10. doi: 10.17730/humo.53.1.178jngk9n57vq685.

References

Foucault, M. (1984) 'Truth and power', in Rabinow, P. (ed.) *The Foucault reader*. New York: Pantheon, pp. 51–75.

Foucault, M. (2006) *Madness and civilisation*. New York: Routledge.

Fox, K. (2004) *Watching the English: The hidden rules of English behaviour*. London: Hodder.

Friedson, E. (1970) *Profession of medicine: A study of the sociology of applied knowledge*. Chicago: University of Chicago Press.

Fulop, N. *et al.* (2002) 'Issues in studying the organisation and delivery of health services', in Fulop, N. *et al.* (eds) *Studying the organisation and delivery of health services: Research methods*. London: Routledge, pp. 1–23.

Garnett, E., Reynolds, J. and Sarah, M. (2018) *Ethnographies and health: Reflections of empirical and methodological entanglements*. Cham: Palgrave Macmillan.

Van Der Geest, S. and Finkler, K. (2004) 'Hospital ethnography: Introduction', *Social Science and Medicine*, 59, pp. 1995–2001. doi: 10.1016/j.socscimed.2004.03.004.

Gillin, N. and Smith, D. (2020) 'Overseas recruitment activities of NHS Trusts 2015–2018: Findings from FOI requests to 19 Acute NHS Trusts in England', *Nursing inquiry*, 27(1), pp. 1–10. doi: 10.1111/nin.12320.

Goodwin, D. *et al.* (2003) 'Ethics and ethnography: An experiential account', *Qualitative Health Research*, 13(4), pp. 567–577. doi: 10.1177/1049732302250723.

Goodwin, D., Machin, L. and Taylor, A. (2016) 'The social life of the dead: The role of post-mortem examinations in medical student socialisation', *Social Science and Medicine*, 161, pp. 100–108. doi: 10.1016/j.socscimed.2016.05.038.

Gordon, D. *et al.* (2011) 'Implementing the rapid recovery program in primary hip and knee arthroplasty in a UK state run hospital', *European Journal of*

References

Orthopaedic Surgery and Traumatology, 21(3), pp. 151–158. doi: 10.1007/s00590-010-0690-9.

Gorsky, M. (2008) 'The British National Health Service 1948–2008: A review of the historiography', *Social History of Medicine*, 21(3), pp. 437–460. doi: 10.1093/shm/hkn064.

Gossedge, P. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. 311–313.

Le Grand, J. (2009) 'Choice and competition in publicly funded health care', *Health Economics, Policy and Law*, 4(4), p. 479. doi: 10.1017/S1744133109990077.

Le Grand, J. (2010) 'Knights and knaves return: Public service motivation and the delivery of public services', *International Public Management Journal*. Elsevier for the International Public Management Network. Available at: <http://eprints.lse.ac.uk/32447/> (Accessed: 30 January 2016).

Le Grand, J. and Cooper, Z. (2013) 'Framing health reform', *Health Economics, Policy and Law*, 8(2), pp. 251–257. doi: 10.1017/S1744133113000078.

Greenhalgh, T. *et al.* (2018) 'Real-world implementation of video outpatient consultations at macro, meso, and micro levels: Mixed-method study', *Journal of Medical Internet Research*, 20(4). doi: 10.2196/jmir.9897.

Greenhalgh, T., Howick, J. and Maskrey, N. (2014) 'Evidence based medicine: A movement in crisis?', *British Medical Journal*, 348(g3725). doi: 10.1136/bmj.g3725.

Greenhalgh, T. and Stones, R. (2010) 'Theorising big IT programmes in healthcare: Strong structuration theory meets actor-network theory', *Social Science and Medicine*. Elsevier Ltd, 70(9), pp. 1285–1294. doi: 10.1016/j.socscimed.2009.12.034.

Grobbelaar, C. (2016) 'Contribution', in *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. p192-193.

References

Guardian Archive (1948) 'Mr Bevan's bitter attack on Tories', *The Guardian*, July. Available at: <https://www.theguardian.com/news/1948/jul/05/leadersandreply.mainsection>.

Hacking, I. (2006) 'Making up people', *London Review of Books*, 28(6), pp. 23–26. doi: 10.1177/13684310122225154.

Hafferty, F. W. (1988) 'Cadaver stories and the emotional socialization of medical students', *Journal of Health and Social Behavior*, 29(4), pp. 344–356.

Hafferty, F. W. and O'Donnell, Joseph, F. (2014) *The hidden curriculum in health professional education*. Edited by F. W. Hafferty and F. O'Donnell, Joseph. Hanover, New Hampshire: Dartmouth College Press.

Halpern, J. (2001) *From detached concern to empathy: Humanizing medical practice*. Oxford: Oxford University Press.

Ham, C. et al. (2017) *Delivering sustainability and transformation plans: From ambitious proposals to credible plans*. London. Available at: <https://www.kingsfund.org.uk/publications/delivering-sustainability-and-transformation-plans>.

Hand, J. (2015) 'Screening the National Health Service: Approaching a cultural history through moving pictures - Centre for History in Public Health'. London. Available at: <http://history.lshtm.ac.uk/2015/08/11/screening-the-national-health-service-approaching-a-cultural-history-through-moving-pictures/> (Accessed: 6 January 2018).

Hanson, D. (2016) 'Contribution taken from: Anderson J, Neary, F, Picstone JV. "Surgeons, Manufacturers and Patients: A Transatlantic history of total hip replacement. Basingstoke: Palgrave Macmillan 2007.', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust.

Haraway, D. (1987) 'A manifesto for Cyborgs: Science, technology, and socialist feminism in the 1980s', *Australian Feminist Studies*, 2(4), pp. 1–42. doi:

References

10.1080/08164649.1987.9961538.

Haraway, D. (2010) 'When species meet: Staying with the trouble', *Environment and Planning D: Society and Space*, 28(1), pp. 53–55. doi: 10.1068/d2706wsh.

Hardinge, K. (1982) 'The direct lateral approach to the hip', *British Editorial Society of Bone and Joint Surgery*, 64–B(1), pp. 17–19. Available at: <https://pdfs.semanticscholar.org/2cf8/16d6482fd3233014412dc8afdf3756940fc6.pdf> (Accessed: 16 October 2017).

Harris, W. H. (2009) 'The first 50 years of total hip arthroplasty: Lessons learned', *Clinical Orthopaedics and Related Research*, 467(1), pp. 28–31. doi: 10.1007/s11999-008-0467-1.

Health and Social Care Act (2012) 'Health and Social Care Act'. UK: HMSO.

Health Education England (2019) *Values based recruitment*. Available at: <https://www.hee.nhs.uk/our-work/values-based-recruitment> (Accessed: 9 August 2019).

Health Service Journal (2018) *Events from HSJ*. Available at: <https://www.hsj.co.uk/events> (Accessed: 12 September 2018).

Hickson Limited (2019) *Hickson: Experience from the front line*. Available at: <https://www.hicksonltd.com/> (Accessed: 13 August 2019).

Higashi, R. T. *et al.* (2013) 'The worthy patient: Rethinking the hidden curriculum in medical education', *Anthropology and Medicine*, 20(1), pp. 13–23. doi: 10.1080/13648470.2012.747595.

House of Commons, P. (2018) *National Health Service Bill 2017-2019*. London: The House of Commons.

Houston, K. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. 42–44.

Howarth, H. (no date) *Remembering Sir John*. Available at:

References

<http://johncharnleytrust.org/howorth.html> (Accessed: 8 August 2019).

Hughes, D. (2012) 'Charnley's hip replacement technique turns 50'. BBC. Available at: <https://www.bbc.co.uk/news/av/health-20457785/charnley-s-hip-replacement-technique-turns-50>.

Hughes, P. (2016) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust.

Ibrahim, M. S. *et al.* (2013) 'Enhanced recovery in total hip replacement: A clinical review', *Bone and Joint Journal*, 95 B(12), pp. 1587–1594. doi: 10.1302/0301-620X.95B12.31303.

Jaye, C., Egan, T. and Parker, S. (2006) "Do as I say, not as I do": Medical education and Foucault's normalizing technologies of self, *Anthropology and Medicine*, 13(2), pp. 141–155. doi: 10.1080/13648470600738450.

Jaye, C., Egan, T. and Smith-Han, K. (2010) 'Communities of clinical practice and normalising technologies of self: Learning to fit in on the surgical ward', *Anthropology and Medicine*, 17(1), pp. 59–73. doi: 10.1080/13648470903569388.

Jeffery, R. (1979) 'Normal rubbish: Deviant patients in casualty departments', *Sociology of Health & Illness*, 1(1), pp. 90–107. doi: 10.1111/1467-9566.ep11006793.

Jenkins, R. (1996) *Key sociologists: Pierre Bourdieu*. London: Routledge.

Kelly, J. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, p. 199.

Klein, R. (1989) *The politics of the NHS*. London: Longman.

Klein, R. (2013) 'The twenty-year war over England's National Health Service: A report from the battlefield', *Journal of Health Politics, Policy and Law*, 38(4), pp. 849–869. doi: 10.1215/03616878-2210503.

References

- Kleinman, A. (1988) *The illness narratives*. New York: Basic Books.
- Kmietowicz, Z. (2016) 'BMA annual meeting: Private firms shouldn't use NHS logo, argue doctors', *British Medical Journal*, 353, p. i3438.
- Knight, S. R., Aujla, R. and Biswas, S. P. (2011) 'Total hip arthroplasty: 100 years of operative history', *Orthopaedic Reviews*, 3(e16), pp. 72–74. doi: 10.4081/or.2011.16.
- Knorr Cetina, K. (2000) *Epistemic cultures: How the sciences make cultures*. Cambridge, Massachusetts: Harvard University Press.
- Krause, F. and Boldt, J. (2018) *Care in healthcare: Reflection on theory and practice*. Cham: Palgrave Macmillan.
- Lacqueur, T. (1992) *Making sex: Body and gender from the Greeks to Freud*. USA: Harvard University Press.
- Lambert, H. and McDonald, M. (2009) 'Introduction', in *Social bodies*. New York & Oxford: Berghahn Books, pp. 1–16. Available at: <http://www.jstor.org/stable/j.ctt9qdch4.3>.
- Lancione, M. (2017) 'Micropolitical entanglements: Positioning and matter', *Environment and Planning D: Society and Space*, 35(4), pp. 574–578. doi: 10.1177/0263775817710090.
- Latour, B. (1993) *The Pasteurization of France*. Edited by A. Sheridan and J. Law. Cambridge, Massachusetts: Harvard University Press.
- Latour, B. (1993) *We have never been modern*. Cambridge, Massachusetts: Harvard University Press.
- Latour, B. (2004) 'How to talk about the body? The normative dimension of science studies', *Body & Society*, 10(2–3), pp. 205–229. doi: 10.1177/1357034X04042943.
- Latour, B. (2005) *Reassembling the social: An introduction to Actor-Network-*

References

Theory. New York: Oxford University Press.

Law, J. (2004) *After method: Mess in social science research*. Abingdon: Routledge.

Law, J. (2010) 'Care and killing: Tensions in veterinary practice', in Mol, A., Moser, I., and Pols, J. (eds) *Care in practice: On tinkering in clinics, homes and farmsinking in Clinics, Homes and Farms*. Bielefeld: Transcript, pp. 57–72.

Law, J. and Lien, M. (2012) 'Slippery: Field notes on empirical ontology', *Social Studies of Science*, 43(3), pp. 363–378. doi: 10.1177/0306312712456947.

Law, J. and Mol, A. (2008) 'The actor-enacted: Cumbrian sheep in 2001', in Knappett, C. and Malafouris, L. (eds) *Material Agency: Towards a non-anthropocentric approach*. Dusseldorf: Springer, pp. 57–78. doi: 10.5840/techne200913323.

Law, J. and Singleton, V. (2015) 'ANT, multiplicity and policy', *Critical Policy Studies*, 8(4), pp. 379–396. Available at: <http://www.tandfonline.com/doi/full/10.1080/19460171.2014.957056>.

Lempp, H. and Seale, C. (2006) 'Medical students' perceptions in relation to ethnicity and gender: A qualitative study', *BMC Medical Education*, 6, pp. 1–7. doi: 10.1186/1472-6920-6-17.

Leys, C. and Player, S. (2011) *The plot against the NHS*. Merlin Press.

Lief, H. I. and Fox, R. C. (1963) 'Training for "detached concern" in medical students', in Lief, H. I. and Lief, N. R. (eds) *The psychological basis of medical practice*. New York: Harper & Row, pp. 12–35.

Lock, M. (2002) 'Cultivating the body: Anthropology and epistemologies of bodily practice and knowledge', *Annual Review of Anthropology*, 22, pp. 133–155. doi: 10.1146/annurev.anthro.22.1.133.

Lock, M. (2013) 'The epigenome and nature/nurture reunification: A challenge for anthropology', *Medical Anthropology: Cross Cultural Studies in Health and*

References

Illness, 32(4), pp. 291–308. doi: 10.1080/01459740.2012.746973.

Lock, M. and Farquhar, J. (2007) *Beyond the body proper: Reading the anthropology of material life*. Durham & London: Duke Uni. doi: 10.1017/CBO9781107415324.004.

Lock, M. and Nguyen, V. K. (2010) *An Anthropology of Biomedicine*. Oxford: Wiley-Blackwell.

Lock, M. and Nguyen, V. K. (2010) 'Local Biologies and Human Difference', in *An anthropology of biomedicine*. Chichester: Wiley Blackwell.

Lopez, D. *et al.* (2010) 'How to become a guardian angel: Providing safety in a home telecare service', in Mol, A., Moser, I., and Pols, J. (eds) *Care in practice: On tinkering in clinics, homes and farms*. Verlag: Transcript, pp. 73–92.

Lupton, D. (2016a) 'The diverse domains of quantified selves: Self-tracking modes and dataveillance', *Economy and Society*. Taylor & Francis, 45(1), pp. 101–122. doi: 10.1080/03085147.2016.1143726.

Lupton, D. (2016b) *The quantified self*. Cambridge: Polity Press.

Lupton, D. (2018) 'How do data come to matter? Living and becoming with personal data', *Big Data & Society*, 5(2), p. 205395171878631. doi: 10.1177/2053951718786314.

Lynch, R. and Farrington, C. (eds) (2018) *Quantified lives and vital data : Exploring health and technology through personal medical devices*. Basingstoke: Palgrave Macmillan.

MacMillan, I. (2008) *The NHS: A difficult beginning*. UK: BBC. Available at: <https://www.youtube.com/watch?v=-ywP8wjfOx4> (Accessed: 26 January 2018).

Maltby, S. (2016) 'Contribution on behalf of Barrie Maltby', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, p. pp304-305.

References

- Martin, E. (1991) 'The Egg and the sperm: How science has constructed a romance based on stereotypical male-female roles.', *Signs: Journal of Women in Culture and Society*, 16(3), pp. 485–501. doi: 10.4324/9781315094106-22.
- Matthews-King, A. (2018) 'Nurses made to "choose between paperwork and patient care" because of staff shortages, RCN warns', *The Independent*, May. Available at: <https://www.independent.co.uk/news/health/nurse-nhs-staff-patients-paperwork-bureaucracy-healthcare-funding-crisis-a8347611.html>.
- McDonald, L. (2014) 'Florence Nightingale, statistics and the Crimean War', *Journal of the Royal Statistical Society. Series A: Statistics in Society*, 177(3), pp. 569–586. doi: 10.1111/rssa.12026.
- McDonald, L. (2001) 'Florence Nightingale and the early origins of evidence-based nursing', *Evidence Based Nursing*, 68(4), pp. 68–69.
- McKee, M. *et al.* (1999) 'Interpreting the evidence: Choosing between randomised and non-randomised studies', *British Medical Journal*, 319, p. 312. doi: <https://doi.org/10.1136/bmj.319.7205.312>.
- McKee, M. and Stuckler, D. (2011) 'The assault on universalism: How to destroy the welfare state', *British Medical Journal*, 343(d7973). doi: 10.1136/bmj.d7973.
- McKee, M. and Stuckler, D. (2014) 'The changing role of the British state and its citizens.', *The Lancet*, 384(9955), pp. 1643–4. doi: 10.1016/S0140-6736(14)61928-0.
- Medicines & Healthcare products Regulation Agency (2017) *Medical device alert (MDA/2017/018)*. UK. Available at: <http://www.mhra.gov.uk/>.
- Michalec, B. (2011) 'The pursuit of medical knowledge and the potential consequences of the hidden curriculum', *Health*, 16(3), pp. 267–281. doi: 10.1177/1363459311403951.
- Michalec, B. and Hafferty, F. W. (2013) 'Stunting professionalism: The potency and durability of the hidden curriculum within medical education', *Social*

References

- Theory and Health*, 11(4), pp. 388–406. doi: 10.1057/sth.2013.6.
- Miller, T. and Boulton, M. (2007) 'Changing constructions of informed consent: Qualitative research and complex social worlds', *Social Science and Medicine*, 65(11), pp. 2199–2211. doi: 10.1016/j.socscimed.2007.08.009.
- Mohan, J. (1996) 'Accounts of the NHS reforms: Macro-, meso- and micro- level perspectives', *Sociology of Health and Illness*, 18(5), pp. 675–698. doi: 10.1111/1467-9566.ep10934530.
- Mol, A. (2002) *The body multiple: Ontology in medical practice*. Durham & London: Duke University Press.
- Mol, A. (2008) *The logic of care: Health and the problem of patient choice*. Abingdon: Routledge. doi: doi:10.4324/9780203927076.
- Mol, A. and Law, J. (2004) 'Embodied action, enacted bodies : The example of Hypoglycaemia', *The Body and Society*, 10(2–3), pp. 43–62.
- Mol, A., Moser, I. and Pols, J. (2010) *Care in practice: On tinkering in clinics, homes, and farms*. Bielefeld: Transcript.
- Mold, A. (2011) 'Making the patient-consumer in Margaret Thatcher's Britain', *The Historical Journal*, 54(2), pp. 509–528. doi: 10.1017/S0018246X10000646.
- Moore, L. and Savage, J. (2002) 'Participant observation, informed consent and ethical approval', *Nurse Researcher*, 9(4), pp. 58–69.
- Moreira, T. (2018) 'Towards a pragmatics of health', in Garnett, E., Reynolds, J., and Milton, S. (eds) *Ethnographies and health: Reflections on empirical and methodological entanglements*. Cham: Palgrave Macmillan, pp. 253–268.
- Moser, I. (2008) 'Making Alzheimer's disease matter: Enacting, interfering and doing politics of nature', *Geoforum*, 39, pp. 98–110. doi: 10.1016/j.geoforum.2006.12.007.
- Moser, I. (2011) 'Dementia and the limits to life: Anthropological sensibilities,

References

STS interferences, and possibilities for action in care', *Science Technology and Human Values*, 36(5), pp. 704–722. doi: 10.1177/0162243910396349.

Mosko, M. S. (2002) 'Totem and transaction: The objectification of "tradition" among North Mekeo', *Oceania*, 73(2), pp. 89–109.

Mosley, F. and Lockwood, S. (2018) 'Prioritizing clinical care in the cash-strapped NHS', *Surgery*. Elsevier Ltd, 36(9), pp. 491–496. doi: 10.1016/j.mpsur.2018.07.006.

Murphy, M. (2014) 'Hiding in plain sight: The production of heteronormativity in medical education', *Journal of Contemporary Ethnography*, 45(3), pp. 256–289. doi: 10.1177/0891241614556345.

National Joint Registry (2011) *National Joint Registry for England and Wales annual report for the year ending 31st December, 2010*. doi: 10.1017/S0030605300002362.

Naylor, C. and Gregory, S. (2009) *Briefing: Independent sector treatment centres*. Available at: <https://www.kingsfund.org.uk/sites/default/files/Briefing-Independent-sector-treatment-centres-ISTC-Chris-Naylor-Sarah-Gregory-Kings-Fund-October-2009.pdf>.

NHS England (no date) *Who cannot use the NHS Identity?* Available at: <https://www.england.nhs.uk/nhsidentity/identity-guidelines/who-cannot-use-the-nhs-identity/> (Accessed: 27 July 2019).

NICE (2018) *Who we are*. Available at: <https://www.nice.org.uk/about/who-we-are> (Accessed: 25 July 2018).

Noncommunicable Diseases and Mental Health: World Health Organization (2002) *Innovative care for chronic conditions: Building blocks for action*. Geneva. Available at: https://www.who.int/chp/knowledge/publications/iccc_ch2.pdf.

O'Connor, R. J. and Neumann, V. C. (2006) 'The history of measuring medicine', *Journal of the Royal Society of Medicine*, 99(May), pp. 226–231.

References

Office for National Statistics (2017) *Annual survey of hours and earnings: 2017 provisional and 2016 revised results*. Available at: <https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/earningsandworkinghours/bulletins/annualsurveyofhoursandearnings/2017provisionaland2016revisedresults#main-points>.

Older, J. and Older, C. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. 317–320.

Olszen, M., Codd, J. and O'Neill, A.-M. (2004) *Education policy: Globalization, citizenship, and democracy*. London: Sage.

Parsons, T. (1975) 'The sick role and the role of the physician reconsidered', *The Milbank Memorial Fund Quarterly. Health and Society*, 53(3), pp. 257–278.

Pinch, T. J. and Bijker, W. E. (1987) 'The social construction of facts and artifacts: Or how the sociology of science and sociology of technology might benefit each other', in Bijker, W. E., Hughes, T. P., and Pinch, T. J. (eds) *The social construction of technological systems: New direction in the sociology and history of technology*. Cambridge, Massachusetts and London, England: The MIT Press, pp. 17–50. doi: 10.1177/082957359901500102.

Platt, H. (2016) 'Contribution: Taken from BBC's "Home Ground" broadcast, 1982', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, p. 329.

Pollitt, C. J. (1993) 'Audit and accountability: The missing dimension?', *Journal of the Royal Society of Medicine*, 86(4), pp. 209–211.

Pollock, A. M. (2004) *NHS Plc: The privatisation of our healthcare*. London: Verso.

Pollock, A. M. *et al.* (2012) 'How the Health and Social Care Bill 2011 would end entitlement to comprehensive health care in England', *The Lancet*, 379(9814), pp. 387–389. doi: 10.1016/S0140-6736(12)60119-6.

Pollock, A. M. (2015) 'Morality and values in support of universal healthcare

References

must be enshrined in law. Comment on “Morality and Markets in the NHS”’, *International journal of health policy and management*, 4(6), pp. 399–402. doi: 10.15171/ijhpm.2015.61.

Pollock, A. M. and Godden, S. (2008) ‘Independent sector treatment centres: Evidence so far’, *British Medical Journal*, 336(7641), pp. 421–424. doi: 10.1136/bmj.39470.505556.80.

Pollock, A. M. and Price, D. (2011) ‘How the secretary of state for health proposes to abolish the NHS in England.’, *British Medical Journal*, 342, p. d1695. doi: 10.1136/bmj.d1695.

Pols, J. (2006) ‘Washing the citizen: Washing, cleanliness and citizenship in mental health care’, *Culture, Medicine and Psychiatry*, 30, pp. 77–104. doi: 10.1007/s11013-006-9009-z.

Pols, J. (2014) ‘Towards an empirical ethics in care: Relations with technologies in health care’, *Medicine, Health Care and Philosophy*, 18, pp. 81–90. doi: 10.1007/s11019-014-9582-9.

Pope, C. (2005) ‘Conducting ethnography in medical settings’, *Medical Education*, 39, pp. 1180–1187. doi: 10.1111/j.1365-2929.2005.02330.x.

Porter, Theodore, M. (1995) *Trust in numbers: The pursuit of objectivity in science and public life*. New Jersey: Princeton University Press.

Prentice, R. (2013) *Bodies in formation: An ethnography of anatomy and surgery education*. Durham & London: Duke University Press.

Puig de la Bellacasa, M. (2017) *Matters of care: Speculative ethics in more than human worlds*. Minneapolis and London: University of Minnesota Press.

Rabinow, P. (2005) ‘Artificiality and enlightenment: From sociobiology to biosociality’, in Inda, J. X. (ed.) *Anthropologies of modernity: Foucault, governmentality, and life politics*. London: Blackwell Publishing, pp. 181–193.

Raine, G. (2016) ‘Contribution’, in Hughes, P. (ed.) *Memories of a Knight and his*

References

Lady. Lancashire: John Charnley Trust, p. 207.

Reynolds, L. (2011) 'For-profit companies will strip NHS assets under proposed reforms.', *British Medical Journal*, 342, p. d3760. doi: 10.1136/bmj.d3760.

Reynolds, L. *et al.* (2011) *Liberating the NHS: Source and destination of the Lansley reform.* Available at: <http://www.labournet.net/ukunion/1109/nhspriv1.pdf>.

Reynolds, L. A. and Tansey, E. M. (2007) *Early development of total hip replacement: The transcript of a witness seminar held by the Wellcome Trust Centre for the History of Medicine at UCL, London, on 14 March 2006.* London: The Wellcome Trust Centre.

Reynolds, L. and McKee, M. (2012) 'Opening the oyster: the 2010-11 NHS reforms in England', *Clinical Medicine*. Royal College of Physicians, 12(2), pp. 128-132. doi: 10.7861/clinmedicine.12-2-128.

Reynolds, L. and McKee, M. (2015) 'Is the NHS really safe from international trade agreements?', *British Medical Journal*, 350, p. h2179. doi: 10.1136/bmj.h2179.

Richter, M. and Dragano, N. (2018) 'Micro, macro, but what about meso? The institutional context of health inequalities', *International Journal of Public Health*. Springer International Publishing, 63, pp. 163-164. doi: 10.1007/s00038-017-1064-4.

Rosenberg, C. E. (2002) 'The tyranny of diagnosis specific entities and individual experience"', *The Milbank Quarterly*, 80(2), pp. 237-260.

Rothman, D. J. (1991) *Strangers at the bedside: A history of how law and bioethics transformed medical decision making.* New York: Basic Books.

Royal College of Surgeons (2018a) *History of the RCS.* Available at: <https://www.rcseng.ac.uk/about-the-rcs/history-of-the-rcs/> (Accessed: 9 August 2019).

References

Royal College of Surgeons (2018b) *Why are surgeons in the UK called Mr/Miss/Ms/Mrs, rather than Dr?, Qualifications of a Surgeon*. Available at: <https://www.rcseng.ac.uk/patient-care/surgical-staff-and-regulation/qualifications-of-a-surgeon/> (Accessed: 9 August 2019).

Sackett, D. L. *et al.* (1996) 'Evidence based medicine: What it is and what it isn't', *British Medical Journal*, 312(7023), pp. 71–72. doi: 10.1136/bmj.312.7023.71.

Salvati, E. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. 115–119.

Sawday, J. (1995) *The body emblazoned: Dissection and the human body in renaissance culture*. Abingdon: Routledge.

Scheper-Hughes, N. (1995) 'The primacy of the ethical: Propositions for a militant anthropology', *Current Anthropology*, 36(3), pp. 409–440. doi: 10.1086/204378.

Scheper-Hughes, N. (2009a) 'Making anthropology public', *Anthropology Today*, 25(4), pp. 1–3.

Scheper-Hughes, N. (2009b) 'The ethics of engaged anthropology: Applying a militant anthropology in organs-trafficking research', *Anthropology News*, September, pp. 13–14. doi: 10.1111/j.1556-3502.2009.50613.x.

Shapin, S. (1998) 'Placing the view from nowhere : Historical and sociological problems in the location of science', *Transactions in the British Institute of Geography*, 23, pp. 5–12.

Sheers, O. (2018) 'The NHS: To provide all people. A poem in the voice of the NHS.' United Kingdom: BBC. Available at: <https://www.bbc.co.uk/programmes/b0b7x2nt>.

Shim, J. K. (2014) *Heart-sick: The politics of risk, inequality, and heart disease*. New York: New York University Press.

Siedenstein, M. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight*

References

and his Lady. Lancashire: John Charnley Trust, pp. 265–268.

Sinclair, S. (1997) *Making doctors: An institutional apprenticeship*. Oxford: Berg.

Singleton, V. and Law, J. (2013) 'ANT and politics: Working in and on the world', *Qualitative Sociology*, 36(4), pp. 485–502. Available at: <http://eprints.lancs.ac.uk/59664/>.

Smith, A. C. and Kleinman, S. (1989) 'Managing emotions in medical school: Students' contacts with the living and the dead', *Social Psychology Quarterly*, 52(1), pp. 56–69.

Stallybrass, P. and White, A. (2007) 'The city: The sewer, the gaze, and the contaminating touch', in Lock, M. and Farquhar, J. (eds) *Beyond the body proper: Reading the anthropology of material life*. Durham, North Carolina: Duke University Press, pp. 266–285.

Stambough, J. B. *et al.* (2015) 'Rapid recovery protocols for primary total hip arthroplasty can safely reduce length of stay without increasing readmissions', *Journal of Arthroplasty*, 30, pp. 521–526. doi: 10.1016/j.arth.2015.01.023.

Stoll, L. and Bhutta, M. (2015) *The contracting NHS – can the NHS handle the outsourcing of clinical services?*, Centre for Health and the Public Interest. Available at: <https://chpi.org.uk/wp-content/uploads/2015/04/CHPI-ContractingNHS-Mar-final.pdf>.

Strathern, M. (1996) 'Cutting the network', *The Journal of the Royal Anthropological Institute*, 2(3), pp. 517–535. doi: 10.1017/CBO9781107415324.004.

Strathern, M. (2000) 'Introduction: New Accountabilites', in Strathern, M. (ed.) *Audit Cultures: Anthropological Studies in Accountability, Ethics and the Academy*. Routledge. London and New York: Routledge, pp. 1–18.

Strathern, M. (2004) 'The whole Person and its artifacts', *Annual Review of Anthropology*, 33, pp. 1–19. doi: 10.1146/annurev.anthro.33.070203.143928.

References

Stuckler, D. *et al.* (2009) 'The public health effect of economic crises and alternative policy responses in Europe: An empirical analysis', *The Lancet*. Elsevier Ltd, 374(9686), pp. 315–323. doi: 10.1016/S0140-6736(09)61124-7.

Stuckler, D. and Basu, S. (2013) *The body economic: Why austerity kills*. New York: Basic Books.

Taylor, C. (1995) 'To follow a rule', in *Philosophical arguments*. Cambridge, Massachusetts: Harvard University Press, pp. 165–180.

The International Consortium of Investigative Journalists (2018) *The implant files*. Available at: <https://www.icij.org/investigations/implant-files/> (Accessed: 9 August 2019).

The King's Fund (no date) *Events | The King's Fund, 2018*. Available at: <https://www.kingsfund.org.uk/events?f%5B0%5D=type%3A8099> (Accessed: 12 September 2018).

Thomas-Symonds, N. (2015) *Nye: The Political life of Aneurin Bevan*. London: I.B. Tauris & Co.

Thomas-Symonds, N. (2018) *70 years of the NHS: How Aneurin Bevan created our beloved health service*, *The Independent [online]*. Available at: https://www.independent.co.uk/news/long_reads/nhs-70-years-aneurin-bevan-health-welfare-uk-politics-a8421781.html (Accessed: 8 August 2018).

Timmermans, S. and Berg, M. (1997) 'Standardization in action: Achieving local universality through medical protocols', *Social Studies of Science*, 27(2), pp. 273–305. doi: 10.1177/030631297027002003.

Timmermans, S. and Berg, M. (2003) *The gold standard: The challenge of evidence-based medicine and standardization in healthcare*. Philadelphia: Temple University Press.

Timmermans, S. and Kolker, E. S. (2016) 'Evidence-based medicine and the reconfiguration of medical knowledge', *Journal of Health and Social Behavior*, 45(Extra Issue: Health and Health Care in the United States: Origins and

References

Dynamics), pp. 177–193.

Timmermans, S. and Oh, H. (2010) 'The continued social transformation of the medical profession', *Journal of Health and Social Behavior*, 51(S), pp. S94–S106. doi: 10.1177/0022146510383500.

Timmins, N. (2001) *The five giants: A biography of the welfare state*. London: Harper Collins.

Toledo-Pereyra, L. H. (2004) 'John Charnley: Father of modern total hip replacement', *Journal of Investigative Surgery*, 17(6), pp. 299–301. doi: 10.1080/08941930490903777.

Tsing, A. (2015) *The Mushrooms at the end of the world: On the possibility of live in capitalist ruins*. Princeton: Princeton University Press.

Turner, Bryan, S. (1990) *Medical power and social knowledge*. London: Sage Publications.

Underman, K. and Hirshfield, L. E. (2016) 'Detached concern?: Emotional socialization in twenty-first century medical education', *Social Science and Medicine*, 160, pp. 94–101. doi: 10.1016/j.socscimed.2016.05.027.

University of Cambridge (no date) *Medicine at Cambridge: Prospective Booklet*. Cambridge. Available at: <https://www.biology.cam.ac.uk/undergrads/MedST/Prospective/Booklet>.

Wallenburg, I. *et al.* (2013) 'Learning to doctor: Tinkering with visibility in residency training', *Sociology of Health and Illness*, 35(4), pp. 544–559. doi: 10.1111/j.1467-9566.2012.01512.x.

Walt, G. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. 194–195.

Warde, A. (1997) *Consumption, food & taste*. London: Sage Publications.

Warde, A. (2006) 'Cultural capital and the place of sport', *Cultural Trends*, 15(2–

References

3), pp. 107–122. doi: 10.1080/09548960600712827.

Waugh, W. (1990) *John Charnley: The man and the hip*. London: Springer-Verlag.

Weber, F. (2016) 'Contribution', in Hughes, P. (ed.) *Memories of a Knight and his Lady*. Lancashire: John Charnley Trust, pp. 240–242.

Weber, M. (2005) *The Protestant Work Ethic and the Spirit of Capitalism*. Edited by T. Parsons. London: Routledge. Available at: https://www.ttu.ee/public/m/mart-murdvee/EconPsy/1/Weber_Max_1930-2005_The_Protestant_Ethic_and_the_Spirit_of_Capitalism.pdf.

Williams, S. J. (1995) 'Theorising class, health and lifestyles: can Bourdieu help us?', *Sociology of Health & Illness*, 17(5), pp. 577–604. doi: 10.1111/1467-9566.ep10932093.

Winance, M. (2010) 'Practices of experimenting, tinkering with, and arranging people and technical aids', in Mol, A., Moser, I., and Pols, J. (eds) *Care in practice: On tinkering in clinics, homes and farms*. Verlag: Transcript, pp. 93–118.

Wodak, R. and Meyer, M. (2014) *Methods of critical discourse analysis*. London: Sage.

Wood, D. F. (2003) 'Problem based learning', *British Medical Journal*, 326(7384), pp. 328–330. Available at: <http://ci.nii.ac.jp/naid/110001102066/>.

Wynne Jones, R. (2013) 'How private firms already run frontline NHS services by stealth', *The Mirror*, May. Available at: <https://www.mirror.co.uk/news/uk-news/nhs-privatisation-how-private-firms-1918235>.

Ybema, S. et al. (2009) *Organisational Ethnography: Studying the complexities of everyday life*. London: Sage Publications.

Younge, G. (2018) 'The NHS, Windrush and the debt we owe to immigration', *The Guardian* [online], 22 June. Available at: <https://www.theguardian.com/commentisfree/2018/jun/22/honour-nhs-built-on-immigration-windrush>.

References

Zimmer Biomet (2019) *Rapid Recovery*. Available at: <http://www.rapid-recovery.co.uk> (Accessed: 8 August 2019).