

BECOMING WELL: SELF-TRACKING AND WAYS WELLBEING EMERGES

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ABSTRACT

This exploratory study aims to develop a better understanding of how self-tracking with wearable devices (and/or apps) associated with health and fitness can contribute towards experiences of well-being for adults within the UK.

Well-being is an important concern within contemporary consumer culture, a culture which advocates exploring consumer-cultural oriented issues from a relational perspective. That is, one which goes beyond privileging consumer agency to instead giving attention to the agency of both human and non-human entities and to capacities emerging from temporary relations established. There is limited knowledge thus far regarding ways well-being emerges from relations between human and non-human, however. This research seeks to further our understanding of well-being by taking inspiration from ideas relevant to the work of Deleuze and Guattari. This research makes sense of implications for well-being by focusing on affects and capacities generated from interactions between individuals, devices, apps, and data generated.

This research is timely. Consumer culture is increasingly digital and self-tracking technologies are a prime example of digital objects which are becoming increasingly prevalent in individuals' lives. Yet, there is still limited empirical research making a connection between what can be done as a result of self-tracking and different ways well-being emerges. This is despite increasing attention towards self-tracking technologies within various academic literature. This includes literature relevant to consumer research.

Multiple datasets are used to study this phenomenon. These include online data, and data generated from semi-structured interviews (n=32), qualitative diaries (n=15) and follow up interviews with diarists (n=8). Findings from this research convey what can lead to individuals re/connecting with self-tracking technologies. They also demonstrate what is tracked and how. They illustrate how self-tracking objects contribute to (more, or less, disciplining and liberating) ways of 'becoming'. Relatedly, the findings illustrate the (ongoing) potential for self-tracking assemblages to generate welcome (or less welcome) changes as individuals navigate various aspects of everyday life. This includes when at home, when at work, or when on the move.

This research ultimately offers several theoretical contributions to the Consumer Culture Theory (CCT) discipline. It activates further thinking about well-being by focusing explicitly on this and by advocating a fresh perspective. The research generates insights which can be linked with those evident within a growing body of CCT literature discussing and exploring (human-digital technology) assemblages. Insights from this research also are relevant to calls from researchers to be critical when exploring assemblages. This research further develops a better understanding of different paradoxes of technology that can emerge which in turn builds upon other CCT literature focusing on technological relationships. By leveraging ideas associated with assemblages, insights can further be linked with, and evaluated in light of, wider academic coverage regarding well-being or self-tracking.

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CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

This thesis is positioned amongst consumer research literature. It contributes to a growing body of work associated with the sub-discipline Consumer Culture Theory (CCT) which directs attention to the agency of both human and non-human entities. In particular, the thesis contributes to budding literature drawing upon assemblage thinking. The thesis presents a qualitative study exploring the experiences of general members of the public interacting with self-tracking technologies associated with health and fitness. The study explores ways well-being is influenced by self-tracking.

This introductory chapter explains the importance of the topic of the thesis. It accomplishes this by introducing the context of self-tracking and conveying the significance of exploring well-being. Figure 1.1. provides a visual overview of the structure of the chapter. The chapter first frames the research, before justifying further why the research is relevant and necessary. The aim of the thesis, the research objectives, and research questions, are then highlighted, as are methods the research employs. An overview of the remaining chapters of the thesis and the associated content follows.

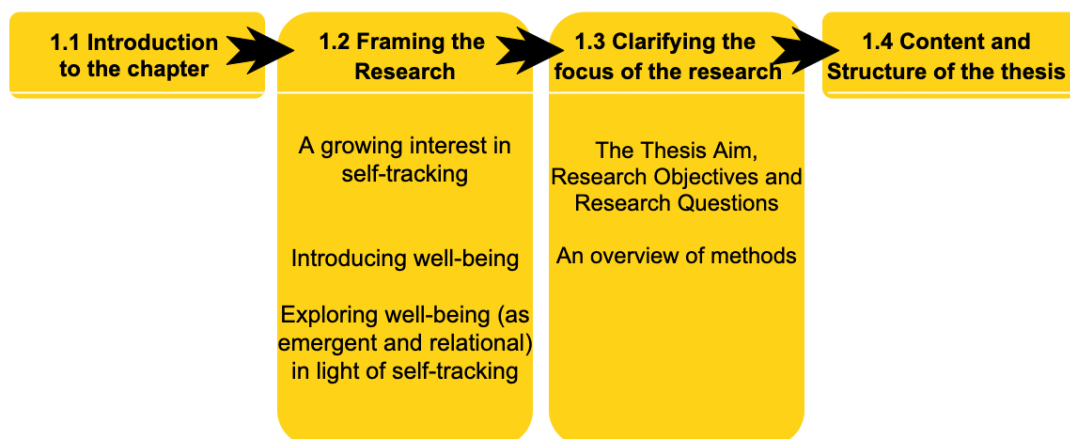


Figure 1.1 Chapter 1 Structure

1.2 FRAMING THE RESEARCH

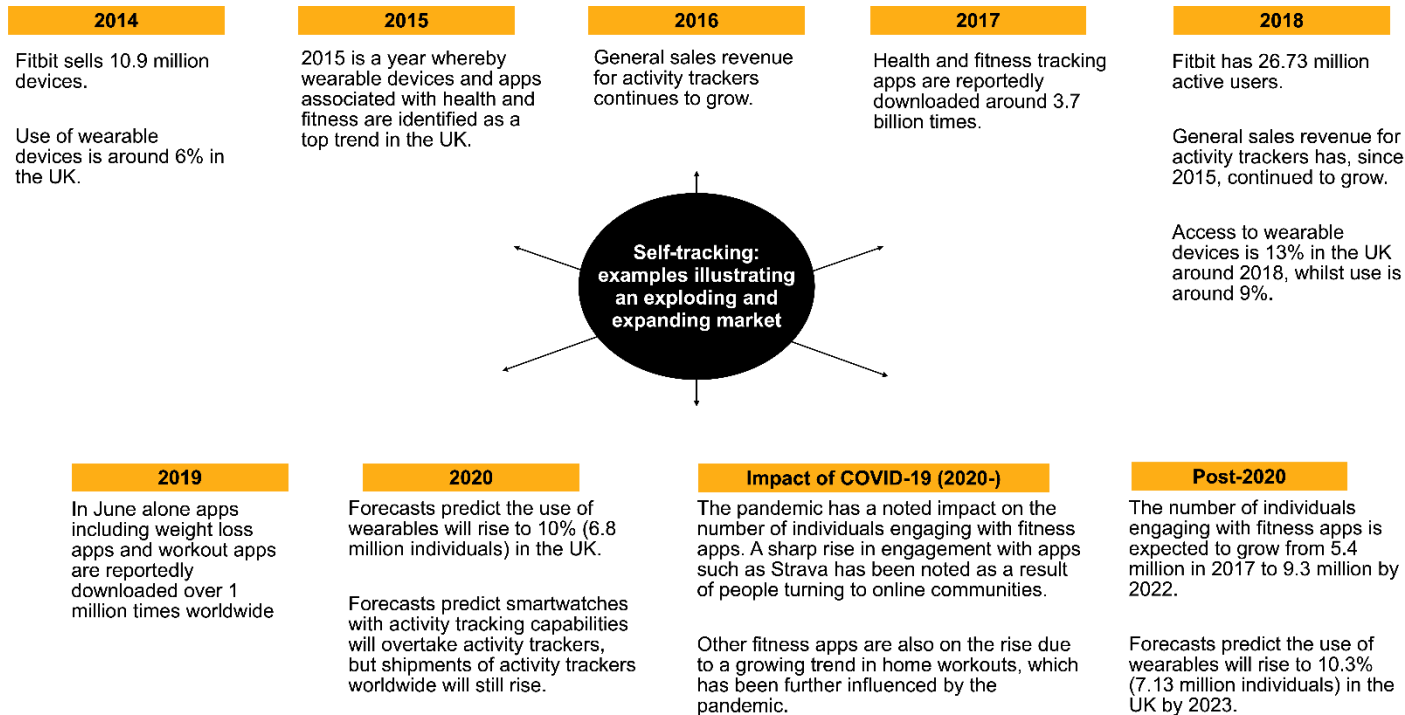
1.2.1 “Ready to get started?” – A growing interest in self-tracking

There is a growing cultural interest in a life informed by numbers (Ajana, 2018). One way this interest manifests itself is through self-tracking (ibid.). Self-tracking generally involves interacting with near-body technology including wearable devices, and applications (Fox, 2017) to gather, and potentially share, biological, physical, environmental, or behavioural data about oneself (Lupton, 2016a; Ruckenstein, 2014; Swan, 2009). As Ajana (2018, p.2) argues, the documentation and quantification of ones’ life and the “avalanche of data” which impacts various aspects of life has become increasingly important in contemporary times. Indeed, in the last decade, numerous self-tracking technologies associated with health and fitness particularly have launched. This includes apps associated with tracking food as well as wearable devices which are more advanced but share a similar premise to the *Manpo-kei*¹. Some wearable devices introduced by companies such as *Jawbone* and *Nike* are notably now discontinued and removed from sale (Muoiio, BBC News, 2018). Several food apps, however, along with wearable devices from companies including *Fitbit*, *Garmin*, *TomTom* and *Apple*, remain in circulation to date (See Appendix A for further details).

Some self-tracking technologies began to burgeon around 2014, when a surge of offerings of devices occurred. This included the availability of Fitbits to the general public along with popular apps such as MyFitnessPal being acquired by Under Armour (Geiger and Gross, 2017). It is evident, however, that the self-tracking market has exploded since and is ever-expanding. Figure 1.2 provides a snapshot of statistics from a range of reports corroborating this. Content from Figure 1.2 conveys that self-tracking is rapidly growing in the West (Sanders, 2017) and in particular, in the UK. The forecasted trends for more recent times are comparable with the nearly 10 million members of health and fitness clubs noted – the second largest number of clubs in Europe (Lange, 2019). It seems many individuals are “ready to get started”

¹ The *Manpo-kei* (meaning 10,000 step meter) was a device sold in Japan in the 1960s and one of the first to be introduced in contemporary times (Tudor-Locke et al., (2008). It encouraged individuals to walk 10,000 steps a day – a standard endorsed after the Tokyo Olympics for helping mitigate physical health risks (Bassett et al., 2017). The device underwent several refinements, including the addition of a mechanism to enhance accuracy in 1987 and the addition of a digital display around 1990 (ibid.).

and “kick off” their fitness journey, as some marketing content (e.g., Fitbit, 2020b) would say.



Supporting references: Mintel Press Team, 2014; ABI, 2018; Ofcom, 2018; Statista Research Department, 2018; Liu, 2019; Elflein, 2019; Clement, 2019; Stewart, 2002; Criddle, 2020; Lufkin, 2020)

Figure 1.2 Examples to illustrate the recent and current state of the self-tracking market

Recognition is starting to be given to the significance of self-tracking technologies within existing consumer research literature. Self-monitoring is a growing phenomenon, some acknowledge (e.g., Belk, 2016) and technologies including wearable devices are becoming well integrated into individuals' lives (Jenkins and Denegri-Knott, 2017; Zolfagharian and Yazdanparast, 2017). They are mainstream (Bode and Kristensen, 2015). The self-tracking context is also no longer the "virtually uncharted territory" (Ostrom et al., 2015, p.143) that it was at the outset of this research (suggesting the timeliness of exploring self-tracking). Nevertheless, for such a significant cultural phenomenon, self-tracking remains relatively underexplored within consumer research. This includes within literature relevant to Consumer Culture Theory; an eclectic discipline comprising studies focusing on consumer identity, marketplace resources, ideologies and power relations, consumers as meaning-makers, or, as is more recently the case, affective interactions between human and non-human (Arnould and Thompson, 2005, 2018).

This research, which was partially sparked by a personal interest in self-tracking, focuses on the self-tracking phenomenon. The research explores how self-tracking contributes to ways well-being emerges. This is accomplished by drawing upon relational thinking. The subsequent sections make evident the appropriateness of drawing upon relational thinking to explore well-being in light of self-tracking.

1.2.2 Introducing well-being

Consumer culture and the well-being of individuals can inextricably be linked (Saatcioglu and Corus, 2019). Thought by some to be just a "fad" (Carlisle and Hanlon, 2007, p.264), the nearly 5000 books by 2007 available from online retailer Amazon regarding "happiness" (ibid.), along with the mass of books advocating ways to experience personal growth (White, 2016) suggests otherwise. Yet, like self-tracking, the extent to which well-being is examined in the CCT literature is limited. Various scholars explore issues relevant to well-being, but do not necessarily refer to the concept directly (Ahuvia and Izberk-Bilgin, 2010). Scholars including Moisio and Beruchashvili (2010), who notably direct attention to the ways in which a quest for well-being can be supported in a weight-loss context, assert that literature drawing insights regarding consumption and well-being is generally "scant" (ibid, p.857). Though this assertion is a decade-old, it is notable that the concept of well-being has received limited attention within CCT literature published in the past 5-10 years.

Indeed, in more recent publications discussing the development of CCT or studies central to CCT (e.g., Levy, 2015; Arnould and Thompson, 2018), the term 'well-being' or its synonymous term 'wellbeing' remain unmentioned. Related terms including 'wellness' are also only briefly alluded to. This is evident within the work of Humayan and Belk (2020), for instance, who acknowledge lifestyle columns which suggest detoxing from the digital is beneficial. Where well-being receives greater attention, this can be for reasons including to respond to calls to conduct relevant research which addresses significant questions about consumption in people's lives (see Costley, Friend and Meese, 2015). This can also be in order to further understand the ways consumers manage well-being by focusing on their presentation of self to others (see Liu, Keeling and Hogg, 2016).

Alternatively, by directing attention to well-being, insights regarding the potential for particular practices to enable consumers to thrive in everyday life can be illuminated. This is the case within Patterson, Kozinets and Ashman (2019) recent work. It builds on a preceding publication that conceptualises "networks of desire" as complex systems whereby particular interests are produced from interconnections between software, hardware, data, other consumers, and so forth (Kozinets, Patterson and Ashman, 2017). The authors illustrate how food image sharing online can enable consumers to feel good, share tastes and passions, feel included in a community, and enact a better version of oneself. This is relative to simply being increasingly tempted to indulge in diets considered rich in appeal but poor for ones' waistline. This is a further alternative to merely being absorbed in a digital world that is distracting from the delights of real-life interaction.

The limited exploration of well-being in recent times despite its importance to consumer culture, provides an opportunity to examine the concept of well-being more closely. For some scholars, one way of doing this and advancing an understanding of well-being is to view it from a fresh perspective. As scholars such as Patterson, Kozinets and Ashman (2019) aforementioned recently accomplish, this can be by viewing well-being as relational. This is in addition to acknowledging well-being as emergent. This is elaborated on hereafter.

Well-being is typically a contentious concept (Dodge et al., 2012). Notably, though, many well-being approaches to date are underpinned by assumptions that well-being is a residing internal state (Atkinson, 2013) or is attainable through the will and technique of individuals (White, 2016). Indeed, this is the case as many self-help

books testify to. As scholars including Cederström and Spicer (2015, 2017) highlight, individuals are often compelled to partake in practices which will enable them to adhere to ideals that make them feel better and enhance other aspects including productivity and physical health. Approaches with such assumptions obscure the idea that well-being can be emergent and relational. This idea is further obscured by approaches including the Capabilities Approach which focuses on what individuals are able to do and be (Sen, 1985; Nussbaum, 2003). As McLeod (2017) recognises, some scholars (e.g., Manderson, 2005) suggest an emphasis is still placed on empowered individuals taking advantage of conditions which enable capacities deemed to be favourable. Recognition is also given by scholars to social determinant approaches, which assume structural conditions that can influence an individuals' well-being are separate and distinctive (White, 2017).

Some scholars, however (albeit more rarely), go beyond such assumptions. They argue instead that well-being can be better viewed as something attained not omnipotently by individuals or as mediated by external forces (White, 2017), but as changes (re)produced from relationships with other things (e.g., social, material, spatial) established in given moments (Atkinson, 2013; White, 2017). For scholars including Duff (2016) or McLeod (2017), an assemblage perspective associated with ideas stemming from the work of those including Deleuze and Guattari (1987, 2000) is valuable. Deleuze and Guattari (ibid.) suggest the capacities of human and non-human entities (that is, what they can do) are contingent upon their relations with others within an assemblage. An assemblage, of which, is heterogenous and dynamic (Deleuze and Guattari, 1987).

McLeod (2017) draws upon ideas relevant to Deleuze and Guattari (1987, 2000), in studying depression. Well-being is conceptualised in a way which recognises that changes actualised for individuals responding to everyday challenges are contingent upon collaborative and affective relationships between human and non-human bodies. These authors recognise, however, that there is an opportunity to explore ideas associated with well-being as emergent and relational and as shaped by the social and material in new contexts. There is reasonably novel scope, therefore, to turn attention towards ways well-being emerges from assemblages comprising human and non-human. Notably, this is whilst still not denying outright individuals' capacity to be agentic, striving towards particular aspirations.

1.2.3 Exploring well-being (as emergent and relational) in light of self-tracking

Self-tracking is a context whereby thinking relationally and taking inspiration from the writings of Deleuze and Guattari (1987, 2000) and others is especially appropriate. The context is timely, given the popularity of self-tracking. Scholars including Hoffman and Novak (2015) draw upon assemblage thinking and suggest it is interesting to explore the kinds of experiences emerging from interactions with new technologies. They also directly address self-tracking. They explicitly recognise that to understand experiences of self-tracking requires one to consider the interactions between different components including the consumer, their device, and the data generated. They argue that through interactions (which evolve over time), components within the assemblage – like that of self-tracking objects, can be affective. This means new capacities can emerge which otherwise would not have been possible without such interactions occurring (ibid.).

Other scholars further recognise that a relational approach enables one to highlight interactions between human and non-human and to explore the ways that affective interactions between human and non-human generate or conceal particular capacities (Lupton, 2017a, 2019a). Yet, relational perspectives are only recently gaining momentum within self-tracking literature. As scholars including Lupton (2019b) recognise, there remains scope to further understand the affective forces of devices and apps and the capacities they generate in everyday life. Drawing upon relational thinking to explore more explicitly ways well-being emerges in light of self-tracking is also particularly underexplored. This is despite the recognition that self-tracking technologies can “open new routes to health and well-being” (Ruckenstein, 2014, p.81).

Self-tracking literature is generally dominated by a “well-established body of work” (Spotswood, Shankar and Piwek, 2020, p2) adopting a critical stance resonant with ideas from philosophers such as Foucault (1988, 1991) – a French philosopher concerned with power relations (Shankar, Cherrier and Canniford, 2006). Authors direct attention to ways self-trackers become increasingly regulatory, engaging in self-surveillance to strive towards narrow social and cultural ideals. In some accounts, attention is given to ways well-being is the responsibility of the individual and something that can be controlled in a seemingly straightforward way by taking control of ones’ body. Often, though, links to well-being are brief or only implicit, and only some coverage reinforces such notions of well-being with empirical evidence (e.g.,

Depper and Howe, 2017; Charitsis, Ynfgalk and Skálén, 2018). Other critiques, meanwhile, whereby there is speculation regarding well-being as commodifiable, include those surrounding the exploitation of data by others for political or commercial means (e.g., Till, 2014; Charitisis, 2016, 2019a, Schüll, 2016). Further literature giving explicit coverage to well-being is insightful. Nevertheless, it is often quantitative (e.g., Nelson, Verhagem and Noordzij, 2016) and/or gravitates towards adopting an individualistic perspective. The focus is often upon needs such as autonomy, relatedness, and self-esteem, or the implications for intrinsic motivation, that individuals are assumed to have (see Karaponos et al., (2016) and Etkin (2016).

There also are limits to ways well-being is explored within recent studies whereby greater attention is given to self-tracking as assemblages or as distributed networks. In these configurations, changes are mediated by interactions between individuals, devices, data and so forth. Indeed, only sometimes are the implications for well-being from new changes generated from tracking made explicit. Studies also often tend to focus on specific groups of self-trackers such as members of a Quantified Self community, cyclists, or females (for examples, see Bode and Kristensen (2015); Pink et al., (2017); Duus, Cooray and Page (2018) and Lupton (2019a).

1.2.4 Justifications for the research

There are several justifications for researching well-being and self-tracking which can be made on theoretical and practical grounds. To clarify, several scholars publishing work relevant to CCT posit that more attention is required towards interactions between human and non-human components relative to primarily emphasising consumer agency. Further scholars publishing work relevant to CCT also identify (digital) technology as pervasive and suggest changes generated from engaging with technological objects deserve a greater exploration. Well-being also remains an overriding objective when designing policy aimed towards improving lives (Hardoon, Hey and Brunetti, 2020). This section proceeds by further detailing ways this study is important and relevant.

1.2.4.1 Exploring well-being (as emergent and relational) can contribute valuable insights

Well-being is an underexplored phenomenon within CCT literature. Directing attention towards ways well-being is emergent and relational is especially warranted.

Implications emerging from interactive relations between human and non-human require more scrutiny, as foreshadowed in works such as Kozinets, Patterson and Ashman (2017) and Patterson, Kozinets and Ashman (2019). Scholars including Giesler and Ventakesh (2005) persist that it is valuable to go beyond disciplinary boundaries whereby implicit in much consumer research is Cartesian assumptions. Here, distinctions are made between human (mind) and the material world of bodies, and whereby the material world is a secondary focus. Bogerson (2005) also suggests that concerns regarding how material objects interact with consumers are rarely addressed. In later work, Bogerson (2013) leverages the view that an enhanced focus on the agency of the material (e.g., objects) and interactive relations is “crucial”. Bogerson (2013) posits that greater attention to this can heighten our awareness to what else can influence what we experience and what else can change us. This can further our understanding of particular consumption contexts, processes, and practices (ibid.).

Scholars including Arnould and Thompson (2015) also posit that there is scope to add to a growing body of work drawing upon assemblage perspectives. Not only this, there is reasonably novel scope to be critical towards (disciplining) power relations and ways some actions are normalised whilst others are blocked or provoke resistance (ibid.).

1.2.4.2 (Digital) technologies are pervasive in everyday life and require more scrutiny

Technological objects, otherwise described as “modern machines” (Mick and Fournier, 1998), are also recognised to be “one of the cardinal consumption categories of contemporary times” (Kozinets, 2008, p.879). Some scholars posit that they are “inescapable” (Mick and Fournier, 1998, p.140). Others, meanwhile, suggest they are perhaps escapable but unavoidable (Humayun and Belk, 2020). In addition to becoming pervasive, scholars recognise that relationships with (digital) technologies can be intimate (Turkle, 2008) and generate substantial changes (Belk, 2014a). Yet, gaps in knowledge remain regarding the implications of engaging with digital technologies. Scholars including Zolfagharian and Yazdanparast (2017) suggest one fruitful area to address is the paradoxical influences of technology on well-being. Cochoy et al. (2017), meanwhile, who posits that contemporary culture is engulfed by digital technologies, suggests self-tracking technologies deserve

attention. It is appropriate, therefore, to interrogate further the implications of interactions with (digital) technological objects such as wearable devices, and apps. They are ubiquitous in everyday life, but are yet to be further understood. Moreover, as Belk (2014b) points out, the genie cannot be put back into the bottle.

1.2.4.3 Coverage regarding self-tracking and well-being is limited in the public health domain

Insights regarding ways self-tracking contributes to well-being can be relevant to those interested in promoting the health and well-being of individuals and wider collectives. Policymakers and collaborators acknowledge the potential for digital technologies such as health and fitness self-tracking technologies to enable individuals to make better lifestyle decisions (phg Foundation, 2020). They also recognise the potential for such technologies to better support health and well-being (The Kings Fund, 2019) in addition to helping mitigate financial pressures on health care services (Ruckenstein and Schüll, 2017). There is little coverage within the public health domain, however, exploring how interactions with self-tracking technologies can transform a persons' capacities and contribute to their experiences of well-being. There are some efforts to endorse free activity and dieting apps including 'Active 10', 'Couch to 5k' and 'easy meals' offered by Public Health England and the NHS. However, these are predominantly marketed as empowering individuals to "take control" and reduce health risks. (Public Health England, 2020). Further insights are limited.

Limited coverage of self-tracking and well-being is problematic, or at least an overlooked opportunity. Understanding what enhances opportunities to build quality relationships, feel a sense of purpose, feel pleasure, and so forth (Hardoon, Hey and Brunetti, 2020) is important. Rhetoric suggests prevention is better than the cure and it is an "imperative" for all people to live well. This is not only to alleviate pressures on the NHS and to help ensure funding can be better spent across health and social care but also to help ensure people can (continue to do) what is meaningful to them (Department of Health and Social Care, 2018). Understanding ways well-being can emerge for individuals who self-track, can, therefore, shed light on whether, and how, self-tracking is valuable for preventing problems and living meaningfully. This is significant to acknowledge, especially if self-tracking technologies are at risk of drifting into obscurity (Piwek et al., 2016). Insights can also be relevant for better understanding how to support and mobilise others who may not be self-tracking but

who want to establish new connections and emerge from physical activity or food assemblages which increase their power to act and advance well-being. Such insights go beyond campaigns focused mostly on emphasising benefits associated with reducing health care costs, preventing or managing chronic conditions, improving productivity, or improving quality of life (this, of which, may be stated rather vaguely). Indeed, this is evident from some existing campaigns including those where there is an ambition for walking and cycling to become an everyday norm (Department for Transport, 2017).

1.3 CLARIFYING THE FOCUS OF THE CURRENT RESEARCH

To corroborate points from section 1.2, it is noteworthy that this research commenced in 2015 at a time whereby self-tracking was still in its infancy. Furthermore, it has come to fruition at a particularly relevant time whereby increasing attention is given to the implications of self-tracking. Yet more empirical research is needed to better understand ways well-being emerges. This research has also come to fruition at a time when relational perspectives including those employing assemblage thinking are gaining momentum within CCT scholarship. This section elaborates on the thesis aim, research objectives, and research questions.

1.3.1 Thesis Aim, Research Objectives, and Research Questions

This research focuses on gaining a detailed understanding of the ways self-tracking contributes to well-being. It is particularly interested in understanding how members of the public emerge from a self-tracking assemblage by connecting with self-tracking technologies associated with health and fitness. To gain a more detailed understanding about whether and how lives can be transformed in meaningful and uplifting ways, attention turns towards changes generated from affective interactions between individuals, devices, apps, and data. The research comprises several research objectives and research questions. This introductory chapter starts to acknowledge insights relevant to the first objective. Table 1.1 outlines the research objectives and research questions.

Research Objective	Explanation	Research Question(s)
1: To critically review the potential of exploring well-being in the context of self-tracking for contributing a CCT study with novel insights.	This research seeks to synthesize relevant existing literature in marketing and adjoining disciplines and elicit connections between significant themes probed. This is to convey how exploring well-being and self-tracking can contribute insights to a growing family of research relevant to CCT.	1: How is well-being and self-tracking understood in existing literature and what opportunities for exploring well-being as less individualistic can be built upon?
2: To develop an appropriate research method assemblage for investigating how participating in a self-tracking assemblage influences well-being.	This research seeks to employ qualitative methods to interrogate in depth why and how health and fitness wearable devices and apps, or standalone apps, become significant for individuals who turn to self-tracking. This research also seeks to explore changes emerging when tracking. Changes otherwise understood as affects and capacities important to well-being.	2: How can exploring ways well-being is experienced for self-trackers effectively contribute to relevant research associated with CCT which focuses beyond consumer agency? 3: What human and non-human components influence individuals to start interacting with health/fitness wearable devices and integrated apps, or standalone apps?
3: To deliver rich qualitative insights which enhance our understanding of the different ways self-tracking can contribute towards experiences of well-being.	This research seeks to present empirical findings which depict the (perceived) relevance of self-tracking as well as ways that self-tracking can transform wellbeing through multiple thoughts, feelings, and actions generated.	4: How do individual's interact with self-tracking technologies and (how) do interactions change across circumstances? 5: How do individual's interactions with self-tracking technology contribute to ways that well-being can emerge?
4: To examine the theoretical implications of such insights for contributing to academic coverage of well-being and academic coverage of complex relationships between human and non-human. Furthermore, to examine practical implications.	This research seeks to critically examine findings to facilitate a discussion regarding how an understanding of well-being as emergent and relational relative to individualistic can be advanced. This research also seeks to discuss implications of relevance to practitioners interested in improving lives in meaningful ways.	6: How do new well-being possibilities (opened up/concealed/overshadowed) from self-tracking compare with what individuals experience when not self-tracking with health/fitness wearable devices and integrated apps, or standalone apps? 7: How do the qualitative insights produced develop our understanding further of well-being as emergent and relational and what are the implications for practitioners interested in promoting well-being?

Table 1.1 Research Objectives and Research Question(s) relevant to the research

1.3.2 Overview of methods

The research questions and research objectives formulated are addressed in multiple ways. A desk-based literature review is conducted which addresses research question 1 and 2 and develops a better understanding of important issues associated with well-being and self-tracking. Secondary data generated from online news is observed, which helps to inform primary research. Rich qualitative data generated from primary methods including semi-structured interviews, semi-structured diaries, and follow-up interviews, is analysed to interrogate themes relevant to research questions 3, 4, 5, and 6. These insights which are examined in depth, address research question 7 and are relevant to literature within the CCT discipline as well as relevant to practitioners.

Semi-structured interviews are conducted with 32 participants recruited through purposeful sampling (Patton, 2002). In addition, a series of diary recordings accessible in a range of traditional or digital formats are recorded by 15 participants. Of these 15 participants, 8 participate in a follow-up interview.

Participant interviews focus on aspects such as what leads participants to start using self-tracking technology; what particular technological features and data are interacted with, and what thoughts, feelings, or actions emerge when self-tracking. Diaries have the capacity within this study to enable participants to reflect on how they track, as well as their thoughts, feelings or actions emerging when self-tracking. Interactions and changes emerging over time can further be identified. Follow-up interviews build on insights from previous data.

1.4 CONTENT AND STRUCTURE OF THE THESIS

This thesis consists of nine chapters, including this introductory chapter. Figure 1.3 highlights the remaining structure of this thesis.

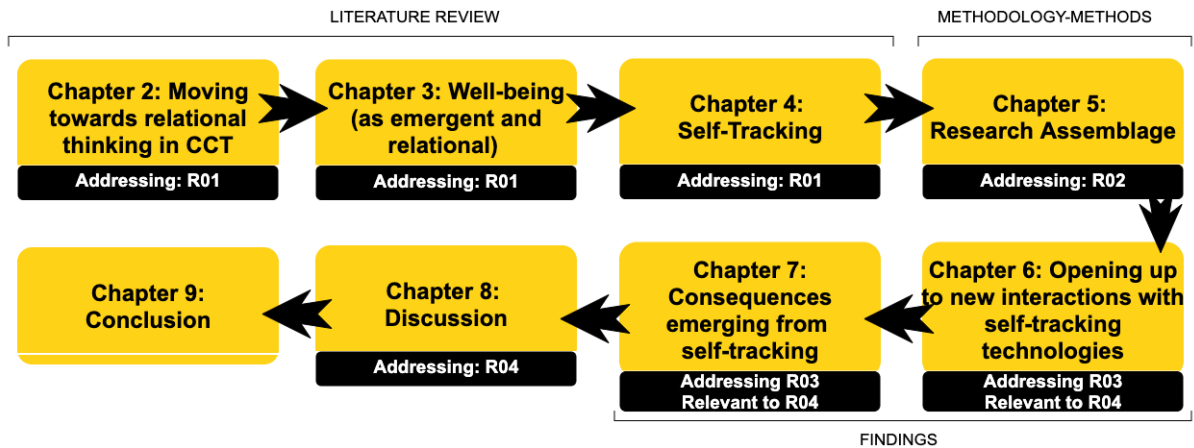


Figure 1.3 The Thesis Structure

Chapters 2, 3, and 4 form the literature review. Together, these chapters address Research Objective 1. The first part of the literature review (chapter 2) positions the thesis amongst existing consumer research associated with CCT which gives greater attention to the agency of both human and non-human components.

Chapter 3 then examines existing literature regarding well-being. The chapter highlights the value of adopting a fresh perspective regarding well-being to address opportunities for contributing new knowledge to CCT. It becomes evident, for example, that it is relevant to acknowledge the efforts of both humans and non-humans for mediating well-being in limiting or more transformative ways.

The latter part of the literature review (chapter 4) probes existing literature regarding self-tracking. The chapter conveys that self-tracking is a rich and timely context to study for contributing new knowledge to consumer-cultural oriented research. The chapter further identifies significant themes as interpreted from existing self-tracking literature. Coinciding with section 1.2, the chapter illustrates that there is a growing body of literature signalling a turn towards relational thinking and signalling the importance of exploring affects and capacities emerging from self-tracking. There remains an opportunity, nevertheless, to make more explicit connections between self-tracking and well-being.

Coinciding with Research Objective 2, Chapter 5 presents philosophical assumptions underpinning the study at the centre of this thesis. It also presents methods which the study employs throughout for addressing research questions 3, 4, 5 and 6. Justifications for the methods utilised are given. The chapter also details the process of generating and analysing data.

In light of Research Objective 3, chapter 6 and chapter 7 present the findings of the study. Chapter 6 gives an overview of wearable devices and/or apps which participants interact with. By assembling various themes, the chapter also provides information regarding participants lifestyles before (re)starting self-tracking. Furthermore, information regarding a range of human and non-human components which lead to participants (re)starting self-tracking is considered. The findings help enhance our understanding of why and how self-tracking technologies become significant for different individuals. Chapter 7 focuses on actual experiences of self-tracking. The chapter presents themes which provides insights into affects and capacities emerging from self-tracking. Consequently, the ways that self-tracking contributes to experiences of well-being before and after (re)starting self-tracking become evident. Findings assembled within these chapters are an important precedent for chapter 8.

Cognisant of Research Objective 4, chapter 8 clarifies the major theoretical contributions of the research. The chapter first revisits the rationale of the study and research objectives. The chapter subsequently discusses findings in-depth and illuminates their significance, reflecting also upon the methods employed for generating data.

Chapter 9 concludes the thesis. The chapter provides an overview of the major theoretical and methodological contributions of the study and interrogates the practical implications of the study. The chapter also outlines research limitations and suggests avenues for further research.

CHAPTER 2: MOVING TOWARDS RELATIONAL THINKING IN CONSUMER CULTURE THEORY (CCT)

2.1 INTRODUCTION

This chapter positions the thesis amongst existing consumer research which adopts or advocates relational thinking. Relational thinking shifts attention away from emphasising consumers as predominantly agentic. It instead directs attention towards interactions forming between human and non-human components (e.g. individual and other material or virtual objects) and towards the agency of both humans and non-humans. That is, their capacities to act (Bogerson, 2005, 2013).

Moving beyond consumer agency and thinking relationally is important. As section 1.2.4.1 of the introductory chapter highlights, Bogerson (2013) advocates that this can help researchers to better understand consumption processes and practices. Bogerson (2013) suggests thinking relationally can perform a ‘fundamental role’ in consumer research (ibid, p.126). The author further advocates that such thinking can be helpful for articulating consumer experiences and for producing enticing accounts about individuals and the world they are engaged with (ibid.). Other scholars (e.g., Hill, Canniford and Mol, 2014) further recognise that relational approaches can enable new insights regarding aspects such as the role of objects within consumers’ lives.

This chapter positions the thesis specifically within a family of research relevant to Consumer Culture Theory (CCT). This family adopts assemblage perspectives to explore what emerges from interactive relationships between human and non-human components. By doing so, this chapter serves as a useful prelude to the subsequent literature review chapters.

The structure of the chapter is as follows: Section 2.2. explicates what CCT is by providing a historical backdrop to CCT and detailing how CCT has come to be a legitimate brand with growing community. This precedes section 2.3, which outlines types of research projects characterising CCT. Section 2.4 directs attention towards discussing relevant themes apparent within such research projects. Section 2.5 then builds on this to emphasise what is timely to explore further. A summary of the chapter follows. Figure 2.1 summarises the chapter content arising.

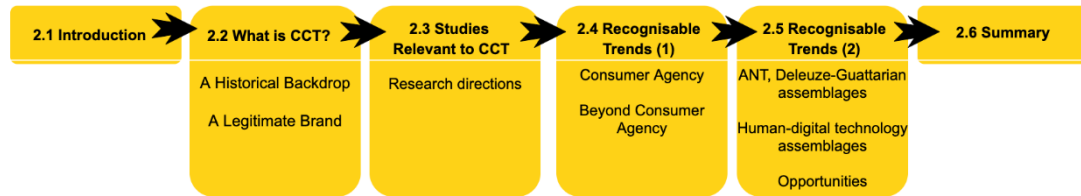


Figure 2.1 Chapter Two Structure

2.2 WHAT IS CCT?

This section clarifies to the reader what Consumer Culture Theory (CCT) is. It does so by acknowledging the history of CCT. This is before discussing in further detail how CCT has become a legitimate brand within the marketing discipline; a brand (Arnould and Thompson, 2005), uniting a range of research projects employing diverse theoretical and methodological perspectives.

2.2.1 A Historical Backdrop

Marketing as a field began to flourish in the late 1940s (Levy, 2020). Yet, most research dominating marketing in the 1940s and 1950s became underpinned by logical empiricism, otherwise described as positivism (Brown, 1996). Positivistic research is generally guided by the assumption that reality can be measured from an objective, independent standpoint, with generalisable insights obtainable from using methods that are typically quantitative and address hypotheses (Hirschman, 1986; Guba and Lincoln, 1994; Brown, 1996). Interpretive research underpinned by alternate assumptions was less favoured with attempts to broaden the fields “paradigmatic horizons” (Arnould and Thompson, 2018, p.3) unsuccessful. Significant headway began to be made, however, when challenges arose to the logical empiricist paradigm, and alternative ways of studying and viewing consumers began to surface (see Appendix B for a detailed overview).

The seminal Odyssey Project (Fitchett, Patsiaouras and Davies, 2014) led by Russell Belk during 1985-1991 has received perhaps the most attention for its significance to the “interpretive turn” (Rabinow and Sullivan, 1988) which subsequently advanced. The project, with its relativist and experientialist orientation (Levy, 2015), involved multiple researchers turning away from ordinary and familiar quantitative methods to instead employ a range of qualitative methods (e.g. interviews, videotapes, photographs, field notes) across various sites (Belk, 1987, Belk 2014c). Geared with

a recreational camper van, researchers embarked on a journey from Los Angeles, West Coast, USA, to Boston, East Coast, USA. They engaged in time-consuming and labour-intensive research activities along the way to in turn produce rich stories and new knowledge about consumer lifestyles and consumer cultures. Insights were produced regarding consumers possessions within their homes (Belk, 2014c) for example. The project was well-funded by the Marketing Science Institute, which is a major funding organisation (Belk, 2014c), and is recognised by some scholars (e.g., Sherry, 1988) as a “political vehicle”, triggering a “paradigm shift” (ibid, p552). Others, meanwhile, recognise it as a “joint legacy” (Askegaard and Scott, 2013) or a “moment” (Bradshaw and Brown, 2008; Bode and Østergaard, 2013). A moment leading to a deviation away from narrow managerial concerns. A moment resulting in a growing preoccupation with qualitative and interview-based interpretive approaches including phenomenology, hermeneutics, personal introspection and participant observation. A moment facilitating research within new, rich, and quirky contexts (Bradshaw and Brown, 2008).

The term ‘Consumer Culture Theory’ (CCT) was proffered in 2005 in an attempt to summarise growing interpretive research and associate it with a revitalised brand (Askegaard and Helibrunn, 2018). Within their paper ‘*Consumer Culture Theory (CCT): Twenty years of research*’ – a paper receiving over 4500 citations to date², Arnould and Thompson (2005) introduced CCT not as a grand theory, despite the title, but rather a brand encompassing studies focused on unpicking the complexities of consumer culture. Consumer culture is viewed here not as a homogeneous system of collectively shared meanings, values, and way of life. Rather, consumer culture is perceived as an unstable and complex network. A network comprising human and non-human relations (Cochoy et al., 2017) that frame consumers’ thoughts, feelings, and actions (Arnould and Thompson, 2005; Bajde, 2014) and anchor and orient consumers’ experiences and lives (Arnould and Thompson, 2018).

2.2.2 A (legitimate) brand

Some scholars judge CCT as a rather marginalised discipline (Arnould and Thompson, 2007; Moisander, Peñaloza and Valtonen, 2009; Fitchett, Patsiaouras and Davies, 2014). Nevertheless, CCT generally has become a legitimised brand.

² As of January 2021, the paper has received 4542 citations, as indicated by Google Scholar.

CCT is a significant sub-discipline within the marketing field, whereby research into consumers, marketers, policymakers and academics is produced (MacInnis and Folkes, 2009). Research relevant to CCT can further be linked with content published from adjoining disciplines including psychology, geography, management, political science, sociology (ibid.), media studies and feminist studies, to name but a few (Joy and Li, 2012). Some scholars (e.g., Fischer and Sherry Jr (2009) suggest that CCT has become a fundamental cornerstone of consumer research. Askegaard and Scott (2013) argue that CCT has done “well” (ibid, p.145). Fitchett, Patsiaouras and Davies (2014), meanwhile, recognise that CCT has emerged successfully and quickly since 2005 (ibid, p.49).

Such views are supported by the increasing popularity of research relevant to CCT within prestigious 3 or 4* journals, as ranked by the Chartered Association of Business Schools (2018). As Wang et al., (2015) and Belk and Sobh (2018) convey, CCT articles are found to be highly cited and more so than other articles, in journals such as the *Journal of Consumer Research*. The success of CCT can further be associated with an active, evolving community, who across the globe, embrace innovative research (Bode and Østergaard, 2013). In addition to hosting regular workshops and doctoral training sessions around the world, scholars have since 2006 met at an annual conference to present and disseminate new and exciting, relevant research (Arnould and Thompson, 2015). With the rise of social media platforms including *Facebook*, there are also active communications occurring within a group boasting over 4000 members³.

2.3 STUDIES RELEVANT TO CCT

Research Objective 1 seeks to synthesise existing literature and review the potential for contributing novel insights to the CCT discipline. Hence, this section acknowledges research which is typical of the CCT brand and which has contributed to its growing legitimacy. This is useful for illuminating key domains and trends which are relevant to the focus of this research.

³ As of January 2021, there are 4239 members within the Consumer Culture Theory group on Facebook.

2.3.1 Research directions

Arnould and Thompson (2005) initially outlined four guiding interrelated thematic domains to unite a diverse range of studies addressing the symbolic, experiential, sociocultural and ideological aspects of consumption. These thematic domains are entitled: 1) Consumer Identity; 2) Marketplace Cultures; 3) The socio-historic patterning of consumption, and 4) Mass-mediated Marketplace Ideologies and Consumers' Interpretive strategies. Figure 2.2 summarises the types of topics generally characterising each domain.



Source: Arnould and Thompson (2005).

Figure 2.2 CCT Thematic domains proposed by Arnould and Thompson (2005)

Contexts in which topics are addressed vary (see Arnould and Thompson (2005) for a list of examples). Moreover, whilst studies typically employ qualitative methods, quantitative methods also drive theoretical advancements (Arnould and Thompson, 2005). Particular contexts of relevance to this study include those spanning fashion experiences and body image (Thompson and Haytko, 1997; Murray, 2002) along with those relevant to paradoxes of technology (Mick and Fournier, 1998, p.125). To briefly explain, Mick and Fournier (1998) recognise paradoxes significant to artificial machines performing operations to be “something both X and not X at the same time” (ibid, p.125). Other contexts include counter-cultural lifestyles such as those regarding the use of natural health alternatives and the incorporation of both Western and Eastern health values into ones’ life (Thompson and Troester, 2002). Table 2.1 provides examples of insights which are produced from research in these contexts.

Reference	Relevant domain(s)	Aim(s)	Methods used	Relevant Insights / Examples
Thompson and Haytko (1997)	Mass-mediated Marketplace Ideologies and Consumer's Interpretive Strategies.	Explore ways college students use fashion discourses to interpret their fashion experiences and conceptions of fashion.	Phenomenological interviews (N=20)	Fashion discourses (e.g. fashion as glamorous or practical) are used proactively to create a style that suits social circumstances, personal interests and life goals. Particular ideals endorsed by mass media images (e.g. thinness, associated with extreme dieting/exercise discourses) are typically resisted in favour of other ideals (e.g. fit, strong, toned, as associated with notions of health, vitality, and control over ones' life and body).
Murray (2002)	Mass-mediated Marketplace Ideologies and Consumer's Interpretive Strategies; Consumer Identity Projects.	Explore how middle-class professional consumers experience fashion as a way of negotiating agency-structure tensions (sign experimentation – sign domination).	Phenomenological interviews (N=14)	The body can be a site for managing particular styles and this can be both disciplining and liberating. The media has an important role in coding the body, however it is a consumers' own lived experience coupled with cultural codes influencing bodily appearance and activities engaged in. For example, one participant does not weightlift just to appear strong, but to help enhance social and economic mobility.

Table 2.1 Examples of insights from CCT studies conducted in rich, relevant contexts

Reference	Relevant domain(s)	Aim(s)	Methods used	Relevant Insights / Examples
Mick and Fournier (1998)	Consumer Identity Projects.	Investigate consumers' meanings, and experiences, regarding a range of technological products.	Pilot: depth interviews (N=4) and focus group (N=1). Followed by: E-mail survey (N = 89) and repeated phenomenological interviews (N = 35 participants).	Technological products are essential to everyday life and central to them are eight key paradoxes. Some are obvious: control/chaos; freedom/enslavement; and new/obsolete. Some are subtler: competence/incompetence; efficiency/inefficiency; fulfils/creates needs; assimilation/isolation; engaging/disengaging. Depending on product, situation, or person involved, paradoxes can evoke stress, leading to avoidance behavioural coping strategies (e.g. delay or avoid buying technology or neglect or distance oneself after purchase) or confrontative coping strategies (e.g. pre-testing, partnering with, or mastering technology).
Thompson and Troester (2002)	Marketplace Cultures.	Explore meanings associated with natural health and the influence such meanings have on consumers' own values and consumption practices.	Depth interviews (N=32).	Consumers perceive well-being as an outcome of harmonious balance in ones' life, which can involve removing stresses, eating healthily and exercising. Well-being can be managed by exercising mindfulness and appreciating experiences. This also includes being reflective of practices and their value to own health. Flexibility contra to fully complying with disciplining ideals is also functional.

Table 2.1 Examples of insights from CCT studies conducted in rich, relevant contexts (continued)

The initial domains suggested were not intended to be definitive or exhaustive (Arnould and Thompson, 2007). The authors have subsequently articulated revisions. Arnould and Thompson (2018) acknowledge increasing attention in research over the past decade towards not only Identity Projects but also Identity Politics. Furthermore, the authors acknowledge increasing attention to Cultural Drivers of Market Transformation and Emergence and Marketplace Cultures. The authors also suggest that there is increasing an attention towards “enriching” “flat ontologies” (Arnould and Thompson, 2018).

The thematic domains are also now considered as directions for research (Arnould and Thompson, 2007; Arnould et al., 2019). This suggests that there is greater flexibility regarding what can be included. Figure 2.3 depicts new topics which are characteristics of research relevant to CCT. Noteworthy is that the turn towards flat ontologies is also a recent trend within literature associated with self-tracking. There is some evidence of this within well-being coverage also (as subsequent chapters will discuss).



Sources: Arnould and Thompson (2005, 2018).

Figure 2.3 CCT Research Directions

2.4 RECOGNISABLE TRENDS (1): HUMAN (AND NON-HUMAN) AGENCY

This section now directs attention to reviewing in greater depth significant themes which are evident within scholarship relevant to the research directions. The section discusses the tendency for several publications to place an emphasis on consumer agency rather than give attention to the agency of others. This means researchers privilege giving attention to individuals' own feelings, tastes, choices, and actions (Fitchett, Patsiaouras and Davies, 2014). The section then focuses on research which departs from focusing predominantly on consumers as agentic and empowered and instead which gives greater attention to the role of other (non) human components by adopting perspectives challenging the valorisation of consumer agency.

2.4.1 Consumer Agency

Askegaard and Linnet (2011) argue that the emphasis on consumer agency is particularly evident within research centred around identity, whereby topics include ways goal-driven consumers use marketplace resources to construct a sense of identity, as Figure 2.2 and Figure 2.3 depict. A prime example whereby there is a privileging of consumer agency, however, is Belk's (1988) study. This study is highly influential, as evident by its receipt of over 12,000 citations⁴. The emphasis on individuals is implicit in the study's title 'Extended Self' (Campbell, O'Driscoll, and Saren, 2020). Belk's (1998) comprehensive review, nonetheless, further reinforces the emphasis on individuals' agency. This review depicts possessions as passive and fixed entities to which consumers attach meanings. It further depicts that possessions contribute towards a sense of identity when they are taken control of and mastered. The emphasis on individual agency is evident within a number of further studies, however. Though not exhaustive, this includes studies using interview methods to focus on ways consumers make meaning of magazine advertisements (see Mick and Buhl, 1992), as well as research employing qualitative ethnographic fieldwork to explore issues such as ways fans of Star Trek⁵ interpret themed mass media messages and engage in meaningful practices that accommodate their personal interests and beliefs.

⁴ As of January 2021, Belk's (1988) publication has received 12048 citations, as indicated by Google Scholar.

⁵ Star Trek is a futuristic sci-fi series (Kozinets, 2001).

Consumer agency is further explored in research that is relevant to mass-mediated marketplace ideologies and consumers' interpretive strategies. This includes within coverage of consumer resistance. Resistance is typically associated with consumers being "reflexively defiant". That is, empowered and informed enough to consciously question economic, political, and social structures reproduced or to generate social change (Ozanne and Murray, 1995, p.516). Similarly, resistance can entail consumers engaging in strategies to counter dominating structures and meanings (Penaloza and Price, 1993). This is accomplished in instances such as when critiquing normative guidelines proffered by legitimised experts regarding whether products such as milk constitute a healthier diet, and when subsequently adjusting ones' own dietary choices (Kristensen, Boye and Askegaard, 2011).

Alternatively, when participating in discursive and ritual practices like those at the Burning Man festival⁶ (Kozinets, 2002). Resistance also occurs when boycotting advertisers for personal affiliation reasons (Hoffman, 2010). Or for reasons including to try to alter an organisations' corporate behaviour and heighten consumers' collective awareness and transform consumerist ideology (Kozinets and Handelman, 2004). Notably, some literature including the latter aforementioned, does recognise wider market forces. Nonetheless, researchers' foci is generally directed towards what consumers as "interpretive agents" (Arnould and Thompson, 2005, p.874) feel and do (Desmond, 2003).

2.4.2 Focusing beyond Consumer Agency

Throughout the preceding section, it became clear that several researchers focus on consumer agency. It also became evident that some scholars recognise the influence of wider market forces in their research, albeit this is backgrounded to some extent. This section highlights that there is a growing body of literature which goes beyond emphasising consumer agency. This includes literature drawing attention to discourses, whereby concepts from philosophers including Foucault have become particularly salient (Askegaard and Linnet, 2011; Thompson, Arnould and Giesler, 2013; Arnould and Thompson, 2018). Discourses are written or oral speech

⁶ Burning Man is a week-long communal gathering whereby participants distance themselves from mainstream consumer culture and the market. It is principally about resisting exploitation by powerful corporations and their associated ideologies. Practices partaken at the festival include those such as gift-giving and receiving, reflective of caring and sharing contra to self-interest and greed (Kozinets, 2002).

(Kozinets, 2008). This section now discusses ways Foucauldian ideas are leveraged. As subsequent chapters (i.e., chapter 4) will demonstrate, Foucault's work is strongly influential within self-tracking literature too, as scholars including Spotswood, Shankar and Piwek (2020) have also signalled (see section 1.2.3). Insights discussed throughout this next section help to suggest, therefore, that considerations of well-being in light of self-tracking have often been obscured by a greater focus on power relations. Alternatively, literature depicts well-being in particular ways (e.g., as something improved when adhering to ideals such as by taking responsibility for health or striving to become fitter).

2.4.2.1 Powerful discourses and the relevance of Foucault

As the introductory chapter briefly alludes to (see section 1.2.3), Michel Foucault (1926-1984), the late French philosopher, was concerned with theorising power (Shankar, Cherrier and Canniford, 2006). Foucault posited that power was distributed everywhere within discourses of knowledge. He further suggested power is inescapable. Foucault became renowned for introducing concepts including 'Governmentality' and 'Technologies of the Self'. Foucault first referred to 'Governmentality', meaning "conduct of conduct" in a series of lectures in the late 1970s. The concept was to explain institutional procedures which influence ways individual subjects exercise governance. That is, by following state-endorsed ideals associated with protecting and advancing societal welfare, health, and happiness (Foucault, 1991). Foucault advocated 'Technologies of the self', meanwhile, to suggest that individuals become governing, by themselves or with the help of others. This is in order to "attain a certain state of happiness, purity, wisdom, perfection, or immortality" (ibid, p.18). The concepts are associated with there being an illusion of individuals having freedom and autonomy, despite being guided by neoliberal logic (Rose, 1999; Shankar, Cherrier, and Canniford, 2006). The concepts differ from ones introduced in earlier work which focus more so on disciplinary and controlling top-down surveillance mechanisms found in institutions including prisons and schools (Foucault, 1979).

Numerous studies demonstrate ways power relations normalise or stigmatise particular identities or practices (Arnould and Thompson, 2018) and in turn render individuals as "less agentic" (Ashman, Patterson and Brown, 2018, p.474). This is evident in Thompson (2004) work, whereby like Thompson and Troester (2002), attention is drawn towards natural health products. Thompson (2004) explicates how

advertisements promoting natural health products for consumers construe certain messages associated with being responsible for health and avoiding illness. Consequently, the advertisements function as a discourse of power. They shape individual conduct and lead to individuals experiencing feelings such as greater control over ones' life when enacting particular behaviours. Ideals endorsed through advertisements, but which are also then perpetuated throughout other media channels and amongst consumers acceding to particular beliefs, include using natural health products to address limits imposed by weight gain. Furthermore, using products to help be fit, active and energetic, or reduce stress by restoring the body's natural balance. Comparably, Giesler and Veresiu (2014) illuminate ways discourses regarding responsibility produce particular subjects and normalised behaviours. They illustrate that discourses can produce an increasingly health-conscious consumer, for instance, who not only engages in preventative care and health management but also reproduces social structures producing such subjectivities.

Yngfalk and Fryberg Yngfalk's (2015) Sweden-based study depicts ways that individuals are spurred on by providers of an online commercial weight loss programme to make their body a site of control. Attention is drawn towards strategies conducted by service providers which facilitate consumers' dependency on the provider for losing weight. Strategies include reminding consumers of the repercussions of their actions and encouraging bodily quantification by measuring bodily weight. This is in addition to encouraging individuals to make choices including consuming particular weight loss products such as diet bars, shakes, and soups, relative to 'ordinary' meals. The authors depict that individuals are encouraged to do this to avoid the temptation of consuming foods or to avoid guilty feelings. The authors further portray consumer strategies. These include 'confessions of the self', whereby individuals admit deviations from the programme. Deviations include over-eating or enjoying too many sugary snacks. Another strategy is 'exposing the self' by disclosing progress and engaging in social surveillance. Further strategies, meanwhile, include 'assessing the self' by sharing milestone achievements encouraged by the provider, and 'redisposing the self'. This entails consumers blaming their bodies when disappointed with progress and finding alternative ways to reach goals when progress is interrupted.

Though not explicitly referring to Foucault, a US-based study conducted by Albinsson, Perera and Shows (2017) concerning ways individuals tenaciously strive towards intended fitness goals, also helps depict the agency of others beyond the consumer.

Through the employment of qualitative methods including interviews, observations, and field notes, it becomes apparent that goals are not merely an individual pursuit. Rather, they are directed by contemporary cultural discourses such as discourses constituting what a 'fit' body is (e.g., being a manageable weight, being active). These discourses are perpetuated by entertainment platforms and other public and private actors including celebrity fitness instructors, weight loss experts, and family members. It becomes further evident that navigating focal goals including becoming fit to ward off the ageing process and be active with children, or gain an increasingly aesthetically pleasing body, requires some outsourcing of physical and mental well-being. As does navigating secondary goals including those regarding modifying exercise and diet. Achieving such goals, even in the face of obstacles, further requires some outsourcing. Insights suggest outsourcing can be done by accepting help from others including personal trainers possessing greater knowledge (ibid.).

Though focusing on a different context, Ashman, Patterson, and Brown (2018) also produce insights regarding ways individuals are shaped by wider historical and social forces. Referring to Foucault's concepts such as 'Technologies of the Self', the authors convey that Youtubers publishing content online during entrepreneurial pursuits are not merely self-determined (i.e. free to make own choices). Rather, they internalise neoliberal ideals and are pressured to conform to mainstream aesthetic ideals to reap rewards such as increased fame and status.

These examples demonstrate that relative to focusing predominantly on the agency of consumers, there is recognition from researchers of wider agentic forces. This is significant given various critiques by scholars. Moisander, Valtonen and Hirsto (2009) suggest it is important to further understand cultural complexities through means including studying discourses, rules, codes and practices which construct and govern the 'self'. Moisander, Valtonen and Hirsto (2009), argue that these mediate consumers' desires and experiences. Askegaard and Linnet (2011) suggest consumer experiences should not be denied. Nevertheless, they also assert that it is important to further consider the cultural, societal, economic, or political conditions in which consumers are situated and whereby their experiences unfold. After all, humans are "first and foremost a social and cultural animal" (ibid, p.400).

2.4.2.2 The Agentic Role of Other Objects

Though CCT literature drawing upon Foucault tends to emphasise operating discourses, a growing body of work gives attention towards the agentic role of other non-human things (e.g., technological objects). Albeit not exclusive to, this is evident within literature drawing to some extent upon prominent concepts aforementioned such as the 'Extended Self' concept. To elaborate, some scholarship drawing upon the "Extended Self" concept still generally emphasises the experiences of consumers and ways their identity is construed in an increasingly digital world, with the active role of technology being mostly alluded to only implicitly (e.g., Belk, 2013, 2016). Some literature, however, is also increasingly sensitive towards the agentic role of digital possessions.

Belk (2013) argues that the 'extended self' concept is "more vital than ever" (ibid, p.477). Others (e.g., Sheth and Solomon, 2014) also evaluate the concept as "powerful" (ibid, p.130). Questions have also arisen, however, regarding whether publications will continue to focus on the concept as new technologies become more pervasive, eradicate boundaries between body, self and object, and lead to further challenges about what the 'consumer' is (Sheth and Solomon, 2014). In recent work, Šimůnková (2019) explicitly refers to the active and shaping role of technologies and proposes new adjectives for extending the 'extended self' concept and for better capturing the "hybrid" state of consumers. The term 'hybrid' can be traced back to earlier scholarship including the work of Clark (2003). Clark (2003) rejects the idea of a central or fixed self and suggests we have always been hybrids. This means we are not merely "bound and restricted by the biological skin-bag" (ibid, p.4). Instead, our body and mind are entangled with the non-biological such as technological devices. Devices which are not only adapted to but also are adaptive, shaping cognitive processes (ibid.). Šimůnková (2019) links hybridity with consumers as being situated in a fused physical/virtual space which emerges from partaking in a "two-way relationship" (ibid, p.54). That is, a relationship whereby individuals interact with technology and the technology drives significant changes and steers ways lives are lived.

Šimůnková (2019) posits that individuals are 'mediated', increasingly dependent on ever-present technologies which are actively incorporated into various aspects of everyday life. Šimůnková (2019) further acknowledges that deep relationships between consumers and technology are established because of the capacities such

technology affords. Affordances are described by others (e.g., Denegri-Knott and Molesworth, 2013) as technological properties that enhance possibilities for users. As an illustrative example, consumers have deep relationships with technologies including mobile phones because they can record valuable experiences including memories and emotions (Šimůnková, 2019). Mobile phones also help manage delegated tasks and support a multitude of consumer activities (ibid.).

In a rather provocative statement, Šimůnková (2019) suggests technologies such as mobile phones maybe have the “same importance to residents of hybrid spaces as an oxygen cylinder has to a scuba diver” (ibid, p.57). Technologies become inseparable and something dependent upon (and are not just an enhancement or an addiction). The author further acknowledges that pervasive technologies transform ways of living by encouraging the activities of an always online body to be streamed, not just shared (they exemplify this referring to the real-time recording of individuals locations as they move through (hybrid) space, for example). A key message interpreted from Šimůnková’s (2019) paper following examination of several implications of technology and provocative statements is objects are not merely a possession individuals’ use to construct an identity. Rather, they are a powerful “indispensability” (ibid, p.67) shaping what (hybrid) consumers can do.

To recognise the significance of technological objects is meaningful. Bogerson (2013) further suggests that to highlight the impact of objects and relationships with them is a powerful reminder that the “mighty human” is influenced by and changed by others. They suggest that we can often be “blissfully unaware of what goes on around us, changing us” (ibid, p.129). Bearing this in mind, it seems apt to explore further relationships with technological objects that are significant in everyday life. Self-tracking technologies, for example, are becoming increasingly pervasive in everyday life, as the introductory chapter articulates (see section 1.2.1). Lupton (2016a) suggests they are ubiquitous and are often engaged with as individuals navigate their daily lives. Later sections throughout this review reinforce this.

This review now directs attention to a rapidly growing body of literature which discusses and explores human and non-human interactions by employing assemblage perspectives. This thesis is positioned amongst such work.

2.5 RECOGNISABLE TRENDS (2): ASSEMBLAGE PERSPECTIVES

Literature drawing upon network perspectives or assemblage perspectives are especially gaining traction in research relevant to CCT. These perspectives fundamentally challenge the idea of the self as primarily agentic and determining interactions with the physical and digital world (Belk, 2014a). Some scholars (e.g., Belk and Sobh, 2018) are somewhat critical of assemblage perspectives. They suggest that drawing upon or applying theories such as assemblage theories, which are typically well-established in other disciplines, can be appropriate and enable powerful insights. They also suggest, however, that there is significant value in first and foremost focusing on creative theorising and cultivating new perspectives to better understand consumer issues and move CCT research forward. Nevertheless, scholars including Arnould and Thompson (2015) argue that work drawing upon perspectives such as assemblage perspectives has “dramatically transformed” CCT (ibid, p.9). Moreover, as section 2.3.1 alludes, the authors later consider this literature to be “enriching” (Arnould and Thompson, 2018). Other scholars (e.g., Epp, Schau and Price, 2014) also argue that assemblage theories have “much to contribute” to consumer research (ibid, p.82).

This section acknowledges literature whereby principles associated with actor-network theory (Callon, 1986; Latour, 2005; Law, 2008) are utilised. The section then reviews literature which draws upon the work of Deleuze and Guattari (1987, 2000) or DeLanda (2006) to discuss or explore assemblages (Belk, 2014d; Hill, Canniford and Mol, 2014).

2.5.1 Actor-Network Theory (ANT)

Actor-network theory (ANT) suggests that multiple realities can be produced through heterogeneous relational networks which comprise human and non-human ‘actants’ that are capable of initiating action. The assumption is that ‘actants’ are ontologically equal (Latour, 2005). Agency does not belong to a particular ‘actant’. Rather, agency resides within the collective of human and non-human entities (Latour, 1992). Consequently, rather than assuming there are pre-existing actors such as a meaning-making consumer (Badje, 2014), a ‘consumer’ only emerges and can act in particular ways depending on what other relations with human and non-human actants are formed (Bajde, 2013, 2014). If a network wavers or falls apart, this too will influence what an ‘actant’ (such as a co-emerging consumer) can do.

ANT is most familiar to scholars working within sociological domains including science and technological studies (Fox and Alldred, 2016). This is where ANT originated from. Nevertheless, ANT principles are drawn upon to explore various phenomena within research relevant to CCT. Principles are drawn upon even before ANT became endorsed as 'worth dabbling with' (Bajde, 2013, p.238). They are utilised to explore phenomena including the mutability of assemblages. This is apparent within the work of Epp and Price (2010). Here, attention is given towards the shifting role and meaning of objects. It becomes evident that the role and meaning of a table is contingent upon the space the table inhabits and the people using it. The exploration of an assemblages' mutability is further evident within the work of Bettany and Kerrane (2011). The authors examine how ambivalent objects such as a chicken coop can contribute to the formation and maintenance of a simplified, de-commodified lifestyle for urban hen keepers. Published only a year later, Giesler (2012) draws upon ANT to examine how assemblages de/stabilise by focusing on ways cosmetic self-enhancement products (i.e., Botox) maintain marketing success over time.

Since 2013, ANT has been drawn upon to demonstrate not only tensions that accrue within a North American Running Community, but also ways the community is bolstered through the exchange of social and economic resources between different individuals, organisations, and products (Thomas, Price and Schau, 2013). ANT has also been drawn upon by scholars including Denegri-Knott and Molesworth (2013) to better understand the role of digital technology and software for producing and managing consumer desire. Desire can be associated here with aspiration and existing as lack (Belk, Ger and Askegaard, 2003; Linstead and Brewis, 2007), albeit is not located merely within the consumer.

Denegri-Knott and Molesworth (2013) draw upon individuals' experiences and sensemaking to illuminate how agency is distributed across networks. They convey how games and shopping sites, for instance, are agentic, transforming desire. The authors depict how these platforms reduce an individuals' efforts to find desirable objects but simultaneously enhance the number of things desired, by presenting individuals with new items they want or by recommending new items in searches. They further convey how agency becomes shared when individuals engage with software to manage wish lists or set up automated alerts. This, however, can lead to a reduced affective commitment towards the desired items themselves, as more work is focused on, and delegated towards, the software. Contra to desire being fuelled by

emotion or passion by daydreaming about, and seeking items, desire in these instances is taken over by the software. Individuals' attention is redirected towards being more mechanical and task-orientated with the software hindering opportunities for pleasure.

Relatively more recently, ANT has been utilised to produce insights regarding the role of technological objects for shaping individuals' actions. This is evident within the work of Bettany, Kerrane and Hogg (2014). Here, the authors explore an ambivalent and dynamic relationship between males transitioning into fatherhood and technologies including pushchairs, baby monitors, and automated rocker seats. Findings derived from the experiences of new fathers include the significance of particular technologies altering as circumstances change. To exemplify, sophisticated baby monitors come to be operated differently to how was first anticipated, creating distance from acts of caring.

The aforementioned studies generally demonstrate that ANT is useful for exploring relationships forming and established or wavering between human and objects, as well as the agentic role of other objects. The studies contribute new insights to topic areas including consumer identity and lifestyle projects. They are especially relevant to the growth in studies focusing on flatter relations.

2.5.2 Deleuze-Guattarian assemblages

Alongside ANT, assemblage ideas stemming from Deleuze (a philosopher) and Guattari (a psychoanalyst and activist) as well as DeLanda (2006) are influential. An assemblage for Deleuze and Guattari comprises of heterogeneous bodies/components (e.g., human, social, technical) intermingling together and reacting to one another (Deleuze and Guattari, 1987). According to Deleuze and Guattari, any assemblage faces two sides or "poles" (ibid, p.145). One is the 'strata'. This means the assemblage is more organised and rigid with a clearly defined territory. Human and non-human components come together and stabilise, leading to habit and repetition and restricted opportunities for becoming-other. This means a 'territorialisation' occurs. New connections can alter an assemblage. When connections are limited and/or familiar, however, stabilising forces can prevail and only a 'relative de-territorialisation' occurs.

The other side of an assemblage is the 'Body without Organs' (Deleuze and Guattari, 1987). A 'Body without Organs' can be associated with concepts including 'de-territorialisation' (Markula, 2006) and 'line of flight'. De-territorialisation occurs when an assemblage destabilises or is transformed. This can be enabled by opportunities to deviate from norms, from "*this* body, *this* assemblage of bodies, *these* desires and habits" (Bogard, 1998). Lines of flight, meanwhile, are associated with boundaries being shot through radically, and with desire becoming channelled in new, creative, experimental or unexpected directions away from a stratified organisation.

Given how they conceptualise assemblages, a key concern for these authors is not what a body is, but what it can do. They state: "We know nothing about a body until we know what it can do" (Deleuze and Guattari, 1987, p.257). Important then, is exploring what a body affects, how it affects (i.e. how it makes a difference and produces change), and how it is affected and has new capacities (Deleuze and Guattari, 1987; Parr, 2010). Affects can be "multiple". The capacity to affect and be affected differs depending on what relational connections with other components with particular characteristics are established and depending on events occurring (DeLanda, 2006). For Deleuze and Guattari, another key concern is what *else* can a body do? In other words, what are the virtual affects and capacities of a body not yet actualised?

Affective capacities are likely to be limited in more stratified assemblages, given their rigidity and sharp boundaries. Yet, as Deleuze and Guattari (1987) recognise, many individuals are arguably likely to desire order and organisation. This is not necessarily bad. Deleuze and Guattari (1987) even assert that "staying stratified—organized, signified, subjected - is not the worst that can happen" (ibid, p161). This is relative to de-stratifying and moving towards the Body Without Organs too quickly or without precaution. Deleuze and Guattari (1987), are, nevertheless, "more interested in" (ibid, p202) and endorse, de-territorialisation and lines of flight, whereby there is greater capacity to form further productive relations and to act. Whilst acknowledging lines of flight are "difficult", the authors suggest the following:

"Lodge yourself on a stratum, experiment with the opportunities it offers, find an advantageous place on it, find potential movements of deterritorialization, possible lines of flight, experience them, produce flow conjunctions here and there, try out continuums of intensities segment by segment... (ibid, p161).

2.5.2.1 Deleuze-Guattarian assemblages: A distinction from ANT

Law (2004) asserts that assemblage thinking, and actor-network theory, are fundamentally the same. There are notable similarities (Müller, 2015). Both resist the idea of anything pre-existing (e.g. consumers, ideologies, social structures) and both are concerned with how heterogeneous things establish relations with one another and function in relation to one another (Canniford and Bajde, 2015). There are recognisable differences, however. Assemblage thinking associated with Deleuze and Guattari arguably places greater emphasis on flux and ‘becomings’, for instance (de Burgh-Woodman, 2018). That is, actual unfolding changes in perceptions and actions which influence how bodies are perceived and constituted (Colebrook, 2002).

2.5.2.2 Insights regarding affects, capacities, and power relations, across wider literature

Literature across various disciplines employs ideas relevant to the work of Deleuze and Guattari (1987, 2000). This literature turns attention away from notions of agency and instead focuses on the capacities of humans and non-humans to affect and be affected. Some literature also helps to illuminate forms of power and resistance or different ways of ‘becoming’. Though not exhaustive (further examples are provided in section 3.3.3.2 where it is relevant), this section offers coverage of some of the existing academic literature bringing to attention the value of assemblage perspectives. This coverage facilitates a better understanding of assemblages and associated ideas.

Literature applying assemblage ideas is relevant to various contexts. This includes drugs, illness, disability, and anorexia, to name but a few. The literature demonstrates what can emerge from relational connections between particular components. This can include affects and capacities which are more limiting. Alternatively, this can include changes which are more disciplining or liberating and expand possibilities for transformation. Table 2.2 provides further details of such literature.

Reference	Context	Relevant Insights / Examples
Malins (2004)	Drugs	Drugs have the capacity to produce life-enhancing affects. This helps contest discourses determining drugs as bad for health. Drugs can bring people together, for instance. They can also transport bodies into different spatial surroundings or heighten feelings of joy. These insights are resonant with others. Duff (2014), for example, suggests such potential of drugs can be actualised when individuals exert moderation, self-control and mastery.
Fox (2011)	Ill-health	The perception that health is an attribute of the individual can be challenged. Health (and illness) can instead be viewed as emerging from relationships between individual bodies and other things. This sentiment is notable within the work of scholars including Buchanan (1997), Fox (2011) and Duff (2014) also. According to Fox (2011), an ill-health assemblage can comprise of physical relations including virus, the immune system, and symptoms. It can also comprise of other social, cultural, and psychological relations such as a doctor, biomedicine, health technology, daily responsibilities, emotional responses, as well as past experiences. These assemblages are unique to the individual and their illness episode. Such assemblages can limit capacities to act. Particular treatments for ill-health assemblages associated with issues such as individuals living with erectile dysfunction can produce only limited capacities such as restoring 'normal' functions. A more healthful assemblage, however, arguably is one whereby there are greater capacities to affect and be affected and form new relations, resist limitations, and experiment with new possibilities.
Potts (2004)	Individuals with erectile dysfunction	Comparable somewhat with insights from Fox (2011), the author finds that a particular drug treatment can be limiting for many. Though considered healthy from a biomedical perspective, the treatment may only facilitate a re-territorialisation. Viagra promotes 'molar' behaviour including restoring typical, predictable, gendered and normative sexual practices. For some, however, more 'molecular' and rhizomatic experiences unfold when Viagra does not work. In these assemblages considered to be more healthful, individuals become more erotic. Enthusing sexual encounters emerge as partners work towards developing new ways of experiencing pleasure.

Table 2.2 Examples of insights from wider literature applying assemblage ideas

Reference	Context	Relevant Insights / Examples
Feely (2016)	Disability	A body unable to speak can have new capacities actualised when able to access appropriate resources, connect with appropriate technological hardware and when able to learn how to use speech-enhancing software.
Gibson, Carnevale and King (2012)	Disability	New possibilities and experiences can be enabled from moving more freely when reconfigured by a wheelchair or when moving out of a human-wheelchair assemblage and navigating spaces in alternate ways.
Monforte (2018); Monforte, Pérez-Samaniego, and Smith (2018)	Disability and rehabilitation	Bodies can be perceived as not isolated from their environment but instead as situated within. Environments such as the gym can help support walking mobility. This is accomplished through encounters with others including doctors promoting recovery. Furthermore, this is accomplished through adapted gym equipment producing affects including enabling individuals to imagine regaining mobility. Though enabling recovery, opportunities for more psychosocially fulfilling exercise regimens can remain unrealised.
Allred and Fox (2017a)	Anorexia – ‘Pro-ana’ assemblages	Anorexia assemblages can comprise the body, personal troubles, food, diet, cultural forces, and significant others. Capacities can be generated which lead to individuals not wanting to recover in conventional ways. These capacities include being cared for and attended to by others, losing weight, feeling in control, or escaping from personal struggles. Individuals may resist mainstream forces encouraging normative body ideals and they may resist other powerful pressures to eat. Instead, they live with anorexia in an alternative way that enhances their capacity to feel and act. Individuals can fluctuate between anorexia assemblage events to a pro-ana assemblage. Resistance within this assemblage can become achievable with the support of others. Indeed, a pro-ana assemblage can comprise of human and non-human components including the body, food, diet, pro-ana philosophy, other anorexic people (offering support and advice), thinspiration and recipes.

Table 2.2 Examples of studies across wider literature applying assemblage ideas (continued)

2.5.3 Coverage of (human-digital technology) assemblages within CCT literature

This section now turns towards applications of assemblage thinking in literature associated with CCT. A notable observation is that recent studies often focus on human-digital technology assemblages (suggesting they are timely to study). Despite growing attention towards assemblages, however, it is clear that there is greater scope for exploring what can emerge from assemblages.

In earlier work, Epp, Schau and Price (2014) integrate ideas relevant to assemblages to offset some limitations of practice theory. They do so to capture components that are important for reassembling family consumption practices at a distance. They suggest that exploring heterogenous components which become part of another (DeLanda, 2006) is important for exploring disruptions to practices and ways practices evolve as new components emerge. Using qualitative methods including interviews and participant diaries, the authors identify five trajectories depicting the role of technology for helping long-distance families maintain or transform particular consumption practices. They find that in addition to the significance of material capacities, is imaginative capacities. These capacities emerge when particular components interact together.

The first trajectory is relevant for indicating that elaborate practices (e.g., family meals) are not shifted to technology-mediated spaces. This can be due to difficulties reassembling the experience. Technology may have a low capacity to capture significant contextual elements (e.g. particular dinner etiquette, the space where dinner is typically eaten). Families may also have low imaginative capacity to envision or accept new ways of performing practices. Characteristics of separation events (e.g., time zone differences) and skills to use particular technologies or unfavourable attitudes towards technologies can also contribute to such difficulties. In the second trajectory, motivated families with tech-savviness skills, experience of distance, and greater imaginative capacity can reassemble elaborate practices online. This can be accomplished through means such as cooking and eating together whilst on Skype. This itself produces expressive capacities including observing others' movements and gestures whilst having dinner.

Other trajectories regard failures to reassemble practices. A failure to reassemble practices can be due to technology having low expressive capacity and making activities seem less meaningful. This can also be due to families having restricted capacity to experiment with new technologies. Contrastingly, simple practices including watching television together can become mediated by technology. A latter trajectory the authors identify entails making small gestures to compliment elaborate practices. This is relative to reassembling practices altogether. Within this trajectory, new objects such as photos which are relevant to an event and communicated to family members can become meaningful.

Comparable with earlier work (e.g., Hoffman and Novak, 2015), Hoffman and Novak (2018) discuss assemblage theory in relation to 'smart' objects'. These range from household objects including Amazon Alexa, to wearable devices, to non-physical internet-connected objects such as music streaming services. The authors posit that smart objects can affect and be affected, and assemblage thinking is advocated to better understand consumer experiences and the agency of objects. Consumer experiences are depicted here as the "properties, capacities, and expressive roles" of the assemblage (ibid, p.1184). Properties are the behavioural, affective, sensory, intellectual and social aspects of experiences. Capacities refer to how those in the assemblage shape and are shaped. Expressive roles refer to things conveying meaning (such as emotions, and gestures, as Epp and Price (2014) mention). Hoffman and Novak (2018) raise several questions including what leads consumers to perform more independent roles and at other times more communal roles when interacting with smart objects and wider assemblages. They also question why emerging consumer experiences vary when consumers interact with objects and they question what leads to experiences being positive and enabling relative to negative and constraining.

They suggest enabling experiences include those of self-extension, whereby individuals adopt a more agentic role, whether this is more material (such as controlling a device) or expressive (e.g. monitoring a pet through controlling a device). Another enabling experience is that of self-expansion, whereby capacities are enhanced when engaging in communal interactions and when reflecting more on what an object can enable (e.g. receiving notifications which evoke deeper thinking about how a monitoring object enables one to care for a pet). The authors suggest these experiences are likelier to facilitate territorialisation (e.g. repeated use).

Hoffman and Novak (2018) depict constraining experiences as self-restricting, whereby limited interactions with an object reduce what capacities can emerge and consequently limit what new things a consumer can do. Constraining experiences can also be self-reducing. These experiences constitute a sense of autonomy being lost in the process of adapting to technology. Constraining experiences are more likely to lead to de-territorialisation. This resonates somewhat with insights from Schweitzer et al., (2019). Drawing upon the notion of the Extended Self in conjunction with assemblage thinking, the authors find that when there is a fear of losing control to a technological object after initially focusing on particular goals and then expressing communion with the object, the assemblage may come to be perceived as no longer working. This can lead to individuals trying to seek greater control or no longer interacting with the technology (ibid.).

Kozinets, Patterson and Ashman (2017) conduct interviews and employ ethnography and netnography to explore how contemporary technology transforms desire for individuals participating in posting and distributing “food porn” images online. Albeit in contrast to other studies (e.g., Belk 2003) whereby desire is conceptualised as a type of lack, desire here is, in accordance with Deleuze-Guattarian thinking, construed here as productive and creative, leading to territorialisation or de-territorialisation. Desire is found to be redirected through technology into particular interests. This is in contrast to being largely dictated by software or delegated to software and made more mechanistic as per Denegri-Knott and Molesworth (2013) insights.

The study illustrates how thoughts and actions can become organised in constraining and disciplining ways which reflect dominant interests when participating in assemblages. Assemblages are articulated here as “networks of desire” – a complex, interconnected system which, as the introductory chapter highlights, comprises human and virtual entities that shape interests. Newsfeeds embroiled with tragedy and heart-breaking posts can hinder individuals sharing inspirational food images privately on their network. Consequently, this can hinder the sharing of passions and scope to inspire others. This can also limit possibilities for happiness and block opportunities for more novel, innovative forms of expression. Mentioning cravings for food or sharing photos of foods privately with others can also become limited for individuals conscious of their body size. This is due to imagining surveillance and negative judgement from others who may make particular assumptions regarding ones’ weight. Photos signalling a well-disciplined food desire and passion for

domestic labour including those portraying special foods prepared and cooked can, nonetheless, later be shared when weight is lost, when an interest and energy for cooking has grown, and when food becomes something to be proud of.

The authors also demonstrate how publicly or professionally participating within such “networks of desire” can be more emancipatory, however. Consumers can give in to passions and attend to excess desires for food by sharing food images publicly with others in a form resembling gift-giving, for instance. Alternatively, they can embrace gluttony, and go beyond the human body’s limited capacity to eat or deviate from typical discourses encouraging the moderation of food. This is accomplished by appreciating, sharing, downloading, or commenting on (perhaps extreme and experimental) food content shared on YouTube videos, social media sites, blogs, and websites. Though some recognise the network to be overwhelmingly compelling with potential to generate tensions, it is found that to become increasingly “wired” (ibid, p.672), living as a de-territorialised body in the virtual world, whilst also giving attention to an immediate embodied physical world, can be gratifying.

Whilst initially focusing on the use and benefits of iPhones and iPhone apps, Marchant and O’Donohue (2009) also direct attention to assemblage thinking to explore capacities emerging for young British people aged 16-19 living with, and through, smartphones. By conducting interviews and employing one-week participant diaries, various insights are generated. Evident is the capacity for components within the human-smartphone assemblage (including ringtones, screensavers, and apps) to enhance personalisation, enable new opportunities for individuals to engage in interesting activities and socialise, and feel empowered. These same components, however, can also produce a sense of dependency when interacted with by individuals habitually or when emotional energy is increasingly invested. Also evident is the potential for the (temporary) de-territorialisation of the human-smartphone assemblage, which may evoke frustration for individuals, or be surprisingly refreshing and perhaps facilitate further positive relations including communicating more interpersonally with friends. A breakdown in relations can occur when a phone is lost, when battery power is exhausted, when social relationships dictate that interacting with ones’ phone is inappropriate, or when individuals feel the need to resist feeling too dependent or overpowered upon investing in technology more intensely or frequently.

These studies are valuable for depicting that technological objects situated in broader assemblages are not essentially good or bad. They instead are capable of producing particular capacities depending on how they are interacted with. In the latter example, it is also evident how paradoxes regarding empowerment/enslavement; independence/dependence and public/private can also emerge when interacting with technology and living life with and through it. This helps further unpick the idea of technological objects being paradoxical (Mick and Fournier, 1998; Penz, 2007).

2.5.4 Opportunities to extend assemblage thinking further

Though proposed within a text published before the aforementioned studies, Arnould and Thompson (2015) assert that what should be analysed more is ways that Deleuzian assemblages legitimise and normalise certain actions whilst also concealing others. They further posit that greater attention should be given to ways assemblages perpetuate the status quo or enable particular power relations to be resisted and open up lines of flight. Such propositions are reinforced in later work (see Arnould and Thompson, 2018), whereby the authors do acknowledge the value of some work (e.g., Kozinets, Patterson, and Ashman (2017) for exploring this in more depth.

There is greater scope, therefore, to address this, whilst drawing upon ideas relevant to assemblages to better understand consumer experiences in a new light. This is arguably further meaningful bearing in mind earlier literature which draws attention to ways of becoming and power relations.

Focusing on self-tracking assemblages in particular, can arguably be fruitful for analysing assemblages more critically. Not only are they recognised as a recent emerging smart technology with the capacity to affect and be affected (Hoffman and Novak, 2015, 2018), but they can often be viewed as disciplining (as chapter 4 will demonstrate). This is significant bearing in mind further arguments which convey that there is a need to better understand how disciplining activity can open up the potential for positive social encounters and joyful encounters (Bogard, 2009).

2.5.5 A timely opportunity to explore human-digital technology assemblages

As literature relevant to CCT drawing upon Deleuze-Guattarian related concepts demonstrates, there is a particular focus on human-digital technology assemblages.

Whilst this suggests that focusing upon digital technology (such as self-tracking technologies) is also timely, assemblages comprising of at least human and digital technology are arguably further fruitful to focus on, given academic literature which depicts the significance of (digital) technology in contemporary life.

As the introductory chapter outlines, technologies are deemed a “cardinal consumption category” of contemporary times by Kozinets (2008, p.879) who proposes four ideologies. The first, ‘Tectopian’ ideology, is associated with scientific progress and human betterment. Second is the ‘Green Luddite’ ideology expressing concerns about the destructive potential of technology. Its impact on the natural environment, the de-skilling of workers, and stripping away of traditional ways of life, for instance. Thirdly, the ‘Work Machine’ ideology is concerned with efficiency, productivity and concerns for economic growth. The fourth ideology - the ‘Techpressive’ ideology - meanwhile, links technology consumption with pleasure and play, creativity and coolness. This ideology also recognises the capacity for technology to not only enable escapism and be liberating but also be addictive. More recently, Cochoy et al., (2017) suggest that “the digital has become increasingly intertwined in everyday life”, producing particular versions of consumers (ibid, p.1). Cochoy et al., (2020) reinforce this. Cochoy et al., (2017) also suggest technologies including those relevant to self-tracking require scrutiny. Bell (2018), meanwhile, argues it is important to consider today what technology can do and who it can benefit, and what it can become to us over time as it exerts agency.

2.6 CHAPTER SUMMARY

Positioning this thesis amongst CCT literature, this literature review began by first focusing on what CCT is by providing but one version of its history and by indicating how CCT has emerged as a legitimate sub-discipline today. After conveying that CCT encompasses a diversity of studies, this chapter observed themes relevant to CCT by reviewing different research projects. The chapter demonstrates that there is a tendency amongst some research to place emphasis on the agency of consumers and their will and intention. The chapter further demonstrates, however, that there is a growing body of research adopting a more relational perspective by recognising other (non-human) bodies with the capacity to exercise agency or ‘affect’. Shifting away from ‘what is’ to thinking about what else can be done to contribute further to CCT, subsequent parts of this chapter suggest that drawing upon assemblage thinking is particularly fruitful. Justifications are given. Justifications include the novel

scope to further explore the ways that interactions between individuals (otherwise known as consumers) and other bodies/components generate new capacities and legitimise and normalise actions and practices, or enable lines of flight. The chapter also conveys that human-technology assemblages are particularly valuable to explore further.

This next chapter directs attention towards well-being. It becomes evident from a comprehensive review of existing literature that adopting a fresh well-being perspective (one which recognises well-being as emergent and relational) can contribute new insights regarding well-being. It can also address opportunities which this chapter acknowledges to be relevant for building knowledge.

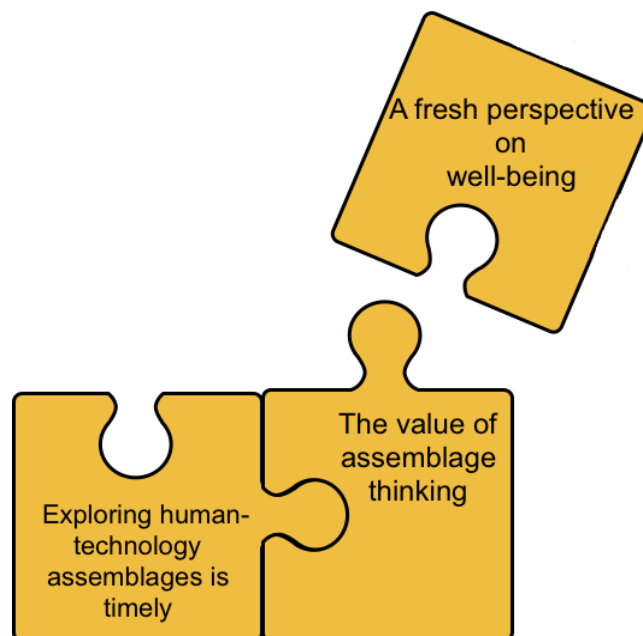


Figure 2.4 Key points from the chapter and relevant points addressed next

CHAPTER 3: WELL-BEING (AS EMERGENT AND RELATIONAL)

3.1 INTRODUCTION

The previous chapter demonstrates that within CCT literature there is increasing attention towards affective interactions between human and non-human components. The chapter highlights the value of drawing upon ideas relevant to assemblages to produce fruitful insights. The chapter further makes evident that drawing upon assemblage thinking to explore human-digital technological assemblages is timely. The chapter makes links which suggest exploring interactions with self-tracking technologies can be valuable.

This chapter turns attention towards existing knowledge regarding well-being. Well-being is relatively underexplored in existing literature relevant to CCT. By directing attention to existing coverage of well-being, this chapter identifies opportunities for advancing thinking about well-being. Like the previous chapter, this chapter is relevant to research objective one. This is recapped below:

RO1:

To critically review the potential of exploring well-being in the context of self-tracking for contributing a CCT study with novel insights

This chapter traces well-being back to its roots. It then evaluates ways that well-being is conceptualised and discussed within literature published in marketing and adjoining disciplines (see MacInnis and Folkes, 2009). Section 3.2 provides a historical backdrop to well-being. Section 3.3 subsequently identifies dominant themes that are evident within existing academic literature. This literature further illustrates the complexity of well-being. Section 3.4 discusses opportunities regarding ways to explore well-being further to contribute new knowledge. A summary follows. Figure 3.1 summarises the structure of the chapter.



Figure 3.1 Chapter Three Structure

3.2 WHAT IS WELL-BEING?

This section briefly introduces the concept of well-being before unpacking in further depth particular approaches towards well-being.

3.2.1 Well-being: a popular concept with a significant historical backdrop

As the introductory chapter alludes to, well-being is a significant phenomenon today. It is of interest to many. As Google search data illustrates, members of the public have expressed a growing interest in well-being over the past decade. As Figure 3.2 illustrates, there is occasionally a dipping interest in well-being (especially during seasonal periods), but generally there has been a steady increase in searches regarding well-being since 2010. Searches have increased particularly so since 2015.

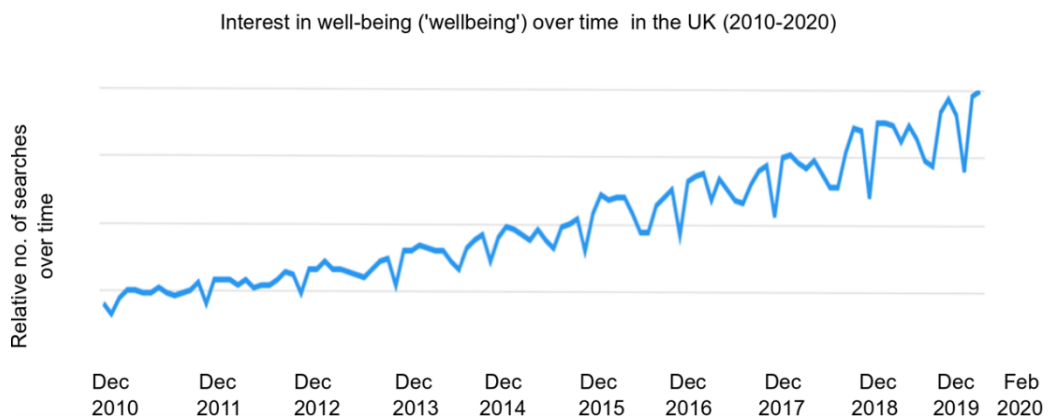


Figure 3.2 Interest in well-being ('wellbeing') over time in the UK (2010-2020)

Well-being is not a new phenomenon, however. Ways of cultivating well-being have been a concern to many for millennia. The well-being of individuals was of paramount importance in Ancient times (Austin, 2016; Vella, Falazon, and Azzopardi, 2019). Ideas surrounding well-being have progressed ever since.

3.2.1.1 Ancient depictions of well-being

On Eastern continents, ways of promoting well-being included encouraging self-awareness and the suppression of egotistic needs, wants and desires (Estes, 2017). Medicinal therapies targeting longevity were also promoted. In the West, numerous philosophers contemplated different ways to be well. Socrates (470/469BCSE) – who

stated that “the unexamined life is not worth living” - believed that self-reflection and wonder were crucial for living well (Estes, 2017). Hippocrates (450-380BCSE), otherwise known as the “father of medicine”, considered well-being to be linked with a disease free and well-functioning body which is in harmonious balance with everything it is interconnected with, including diet, exercise, geography, seasonal climates, and government (Michalos and Weijers, 2017). Philosophers including Aristippus of Cyrene (435BCSE-356BCE) and Epicurus (341BCE – 270BCE) advocated what is known as ‘hedonic’ well-being. They posited the importance of attaining pleasure and minimising pain (Austin, 2016; Estes, 2017).

Philosophers such as Aristotle (348BCE-322BCE) are renowned for contesting the view that pleasure is the sole good to focus upon (Waterman, 1993). Aristotle instead advocated and posited that individuals should strive to live well to become fully authentic. According to Aristotle, this can involve enacting responsibility by doing virtuous activities and pursuing realistic goals. This can also involve making the best out of ones’ circumstances. Furthermore, being temperate and doing things moderately (e.g., by following a particular “standard” or “right rule”). This is unless a situation calls for a more extreme response (Ross, 1999, p.22). Aristotle further suggested that individuals can exercise virtue by (deliberating over) doing activities which are reflective of personal character, but which are also shaped by the social environment. Aristotle remarks: “Legislators make citizens good by forming habits in them”. Aristotle further remarks that “activities we exhibit must be of a certain kind”, benefitting oneself but also others (ibid, p10, p21). Opportunities for doing virtuous activities were arguably more likely when possessing other goods such as reciprocal friendships, health, beauty, strength, wisdom, and wealth (ibid.).

3.2.1.2 Depictions of well-being during more recent decades

During the Enlightenment era (17-19c), thinkers including Bentham, and Hobbes, adopted happiness-centric and wealth-centric views. These suggested that of utmost importance was attaining happiness by satisfying sensory and psychological pleasures or by promoting wealth to satisfy essential needs such as food, clothing and shelter (Ryan and Deci, 2001; Michalos and Weijers, 2017). Other thinkers (e.g. Huxley) implied an authentic, interesting, and meaningful life was more important (Michalos and Weijers, 2017).

In relatively more recent times (e.g., between the 1940s and 1970s), economic dimensions of well-being became legitimised. Pancer and Handelman (2018) acknowledge that well-being became equated with rational consumers making choices between goods offered at competitive prices by producers. This coincides with dominating views held at the time (see Appendix B). During the 1970s, well-being became associated with particular consumer satisfaction measures. This was evident within the field of macromarketing (Pancer and Handelman, 2018).

Alternative views of well-being were advocated during these times and have become pertinent, however. The World Health Organisation (WHO) asserted that mental, physical, and social well-being are just as vital to health, as the absence of illness (WHO, 1946), for instance.

3.2.2 Well-Being is a complex concept

Tracing well-being back to its roots and highlighting some historical views of well-being helps to illustrate that well-being is a complex concept. More contemporary discussions of well-being demonstrate that this complexity persists. Well-being suffers “dilemmas of definition” (Gillett-Swan and Sargeant, 2015, p.137). There are various ways of interpreting well-being (Dodge et al., 2012). As White (2016) asserts, any effort to produce a summary “must inspire some trepidation” (ibid, p.5) as various meanings are attached to the concept. This is despite rather simple and vague dictionary definitions of well-being provided today. The Oxford English Dictionary (2020) defines well-being as a state of being comfortable, healthy, or happy, for example.

Whilst acknowledging well-being is a complex and contentious concept, this review proceeds by discussing trends observable from existing well-being literature. This lays the groundwork for reviewing what can be done to contribute new knowledge.

3.3 RECOGNISABLE TRENDS REGARDING WELL-BEING

This section first acknowledges literature which suggests that well-being is predominantly individualistic. Attention then turns to literature suggesting that well-being can be linked with particular sociocultural ideals. Finally, coverage turns to literature advocating well-being as emergent and relational. Notably, themes

identified regarding well-being are comparable with themes from the previous chapter.

3.3.1 Well-being as individualistic

Well-being is discussed explicitly and extensively within the psychology discipline (Ryan and Deci, 2001). Many scholars publishing within this discipline suggest both hedonic and eudaimonic well-being are important (see King and Napa, 1998; Keyes and Annas, 2009; Huta and Ryan, 2010; Henderson and Knight, 2012). Though there are multiple interpretations of what constitutes hedonic and/or eudaimonic well-being, there are notably some commonalities across perspectives. An emphasis on individual agency is evident across well-being perspectives, for example. This is discussed hereafter.

3.3.1.1 Hedonic well-being perspectives

Hedonic well-being is typically associated with perspectives including Subjective Well-being (SWB). This is sometimes referred to as “happiness” (Diener and Diener, 1996). This perspective considers well-being as a measurable, internal state, whereby individuals can subjectively evaluate their experiences of well-being. They can evaluate their general life satisfaction, for instance, or their ‘affect’. Notably, affect here constitutes a different meaning to that of ‘affect’ which is significant to Deleuze and Guattari (1987)’s work.

Positive affect refers to feelings including cheerfulness, confidence, self-esteem (Diener et al., 1985), enjoyment, fun (Diener and Emmons, 1984), and carefreeness (Huta and Ryan, 2010). Negative affect refers to feelings including stress (Diener et al., 1999). Some scholars interpret individuals as having a predisposition towards feeling generally positive (Diener, 2000) or towards experiencing stable feelings. Arguably, factors including personality traits and an ability to adapt to life circumstances can influence this (Headey and Wearing, 1992). Some scholars also connect an individual’s behaviour with pleasant emotions they have. Pleasant emotions are linked with behaviours including engaging in interesting activities (Diener, 2000), and taking time to enjoy leisurely pursuits such as listening to music, shopping, playing games, or pampering (Huta and Ryan, 2010). Links are made with behaviours including not worrying, focusing on the present moment, engaging in

optimism (Fordyce, 1983; Petersen, Park and Seligman, 2005), and (learning ways of) regulating behaviours to maximise pleasure and avoid pain or sadness (Higgins, 1997).

3.3.1.2 Eudaimonic well-being perspectives

Various eudaimonic well-being perspectives focus on what is important for well-being at different levels. This section explains these perspectives before elaborating on them in further depth. It is noteworthy that some self-tracking literature engages with ideas which are comparable with those here (as chapter 4 demonstrates).

Ryff (1989) moves beyond literature which focuses on short-term affective states and shifts attention towards the fulfilment of one's potential to be healthy and function well (Ryff and Singer, 2008). The author advocates 'Psychological Well-Being' (PWB). This perspective concerns itself primarily with functioning, which refers to how well one is doing as a result of how they live (Huta and Waterman, 2014; Huta, 2015). The PWB perspective encompasses six fundamental characteristics. These are self-acceptance, positive relations, autonomy, environmental mastery, purpose in life, and personal growth. Ryff (1989) develops these characteristics based on converging insights from earlier theorists concerned with individuals fulfilling their potential. This includes insights from Maslow (1968).

Maslow (1968) contends that understanding better humans' natural tendencies will make it easier to prescribe ways to be good, happy, healthy, and fruitful. Maslow (1968) suggests it is important to address intrinsic needs. These include physiological needs and safety needs including health. Further needs include affection and belonging needs and esteem needs such as respect and strength. This is in addition to a general desire for self-actualisation.

According to Ryff (1989), self-acceptance refers to individuals having a positive attitude towards themselves. Positive relations with others can include loving relationships or supportive relationships and guidance from others. Autonomy is associated with qualities including self-determination and taking control. Autonomy is also linked with freedom from norms and with not being overly attentive to others' concerns or expectations. Ryff (1989) suggests that environmental mastery is an ability to choose or create accommodating environments for oneself. Environmental

mastery is also the capacity to seize opportunities. The author links purpose in life with the belief in life having meaning, with being productive, and with having meaningful goals and a sense of direction. Finally, they liken personal growth with the continuous development of ones' potential or with the seeking of new challenges. This is relative to lacking a sense of improvement or having limited capacity to make interesting changes.

Alongside PWB, Self-Determination Theory (SDT) is another influential perspective. SDT has received considerable attention. This is evident by Ryan and Deci (2000)'s paper receiving over 42,000 citations⁷. SDT, which by its very name suggests emphasis is directed mostly towards human action, is primarily concerned with an individual's motives for pursuing a goal. The behaviours which are undertaken to pursue a goal are also of interest, as are subjective experiences (Huta, 2015). SDT focuses on three needs that the authors consider to be innate. These are autonomy, competence, and relatedness. Autonomy is whereby individuals feel masterful and in control. Competence concerns the ability to achieve. Relatedness is associated with a sense of belonging and connectedness with others (Deci, and Ryan, 2000; Ryan and Deci, 2000; Ryan, Huta and Deci, 2008).

Individuals are argued to be more intrinsically motivated when these needs are satisfied. That is, they are more likely to be naturally inclined towards being "agentic", "inspired", and "striving" to learn and master new skills (Ryan and Deci, 2000, p.68). Social-contextual events can recognisably satisfy such needs. For example, competency and a sense of autonomy can be enhanced when having choices, having opportunities for self-direction, or when receiving feedback and rewards (ibid.).

Ryan and Deci (2000) suggest that extrinsic motivation is more controlled than intrinsic motivation. They argue that this can undermine autonomy needs. They suggest that "external regulation" undermines autonomy the most. This is whereby behaviours are driven by reward or punishment. The authors consider "introjected regulation", meanwhile, to entail some sense of autonomy. This is when individuals behave in ways coinciding with a particular ideal or standard to boost their self-esteem or avoid guilt or anxiety. Individuals can feel guilty or shame, however, if not meeting a standard. The most autonomous form of extrinsic motivation is argued to

⁷ As of January 2021, this paper has received 42179 citations, according to Google Scholar.

be that whereby individuals recognise and reflect on the importance of a behaviour, identify with it, and act accordingly (ibid.). Within psychology literature, it is found that identifying and internalising values is helpful in situations such as trying to lose weight or adhere to medication (Williams et al., 1996, 1998).

Waterman (1993) focuses more narrowly on experiences of “personal expressiveness”. The author makes explicit connections with intrinsic motivation and ‘flow’. Csikszentmihalyi (1988, 2008) describes flow as a process whereby individuals become fully absorbed in satisfying activities, experience intense feelings of enjoyment, and capitalise on skills related to an activity. Waterman (1993) posits that what is important to eudaimonic well-being is doing activities which are fulfilling, challenging, or bring a sense of meaning and purpose. Waterman (1993) discusses this in comparison with hedonic well-being. Here, hedonic well-being refers to feelings including contentment, relaxation, and losing track of time.

Seligman (2012), an author renowned for the Positive Psychology movement, advocates the ‘PERMA’ model. This model is centred around orientations. That is, what a person seeks (Huta and Waterman, 2014; Huta, 2015). Whilst not exhaustive (Seligman, 2018), this model builds on Seligman’s (2002) earlier work regarding ‘authentic happiness’. The model proposes that Positive Emotion (P), Engagement (E), Relationships (R), Meaning (M), and Accomplishment (A) are important to well-being. Positive emotions are resonant with a hedonic outlook. Engagement refers to finding and engaging in immersive activities and enjoyable activities. Comparable with other perspectives, this relates to the notion of ‘flow’ (Csikszentmihalyi, 1988, 2008). Relationships comprises positive social connections with others including family and friends, whilst meaning comprises doing purposeful tasks that are satisfying to the self and can contribute to a wider collective. Accomplishment refers to having goals and pushing oneself.

3.3.1.3 Commonalities across hedonic and eudaimonic well-being perspectives

The aforementioned perspectives differ from one another. There are commonalities, however. They share values such as engaging in meaningful activities, being autonomous, being competent, and cultivating positive feelings (Huta, 2015). Several scholars recognise that they are underpinned by individualistic assumptions. Emphasis is directed towards individuals being driven by their own needs, interests

and goals. Emphasis is also directed to individuals determining and enacting the best way to satisfy their needs, interests, and goals to be their true self (Taylor, 2011; Christopher and Howe, 2014).

Christopher (1999) and Christopher and Howe (2014) argue that PWB endorses aspects such as autonomy and independence. Though Ryff (1989) also places importance on social relationships, social relationships can arguably be interpreted here as something an individual engages with to fulfil needs or interests. This differs from a view whereby an individual is considered to be fundamentally inter-dependent and connected with others (Christopher, 1999). Christopher and Hickey (2008) also recognise that the perspectives which scholars including Seligman advocate have ignited concerns regarding the strong influence of Western cultural values which promote individual choice and action. Countries from which these perspectives originate from arguably are underpinned by cultural values which place greater significance on happiness and autonomy (Carlisle and Hanlon, 2017b; Carlisle, Henderson and Hanlon, 2009). White (2017), meanwhile, claims perspectives including SWB and Psychological Well-being “assume an individualist ontology” (ibid, p.128). That is, they assume well-being belongs to the individual.

Some scholars perceive problems with what these aforementioned perspectives advocate. Held (2002) argues that individuals may become overly empowered and feel an expectation to constantly cultivate positive emotions, despite this being unrealistic. Various scholars (e.g., Williams, 2000; King, 2001; Carlisle, Henderson and Hanlon, 2009) also suggest that negative emotions and experiences are not necessarily problematic. They are normal. In some cultures, to experience negative emotions or more moderate emotions relative to maximising positive ones is even virtuous (Christopher and Hickey, 2008). This suggests that there is scope to not overlook what is typically considered as ill-being and to instead view this as part and parcel of well-being.

3.3.2 Adhering to Ideals: Wellbeing as Self-Management and Self-Improvement

Some scholars adopt a further critical tone towards the aforementioned well-being perspectives. Reference was made in the previous chapter to Foucauldian concepts including ‘governmentality’ and ‘technologies of the self’ (1979, 1991). To recap, these concepts depict that individuals do not simply exercise agency. They are

constituted by sociocultural ideals. Foucauldian concepts are relevant to critiques which scholars including Binkley (2011) offer. Binkley (2011) suggests that happiness has become a regime whereby individuals become subjects of a neoliberal enterprise by adopting particular behaviours (e.g., thinking positively, being entrepreneurial, being proactive, and acting autonomously).

The next section illustrates how this sentiment can be reinforced. It reviews literature which demonstrates that individuals are encouraged to boost well-being by taking responsibility and engaging in behaviours which are reflective of wider social and economic imperatives.

3.3.2.1 Well-being and adhering to ideals: evidence from public health marketing and policy

This section considers how individuals are encouraged to boost their well-being in ways that are governing. The section focuses upon policies relevant to health within the UK. This is because this research focuses on self-trackers in the UK and insights regarding health can be relevant to the empirical context.

As White (2017) acknowledges, The *Five Ways to Wellbeing* initiative is a renowned example whereby it is evident that individuals are encouraged to strive to manage themselves and make improvements to their lives. The New Economics Foundation - an independent think tank seeking to promote “happy, healthy, capable and engaged” individuals (NEF, 2014, p.4) – endorses this initiative. The initiative posits particular activities as a “sure way to look after our wellbeing” (NEF Consulting, 2017). The initiative encourages activities including connecting with others for support and enrichment, doing physical activity to feel good, appreciating ones’ surroundings, learning new things, and giving to others for a sense of reward. Recognition is given towards ways institutions including local councils, schools, and work organisations can help to facilitate activities. Attention is particularly drawn to the simple things that individuals can do (What Works Wellbeing, 2019). The initiative also recognisably promotes idealised behaviours and reinforces social norms surrounding self-responsibility and welfare (Taylor, 2011).

This is further evident within the Change4Life social marketing campaign, which was instigated in 2009 by the UK government (Department of Health, 2011). At the heart of this campaign is the contemporary issue of obesity. Institutions consider obesity to

be problematic (Department of Health, 2011; The Marketing Society, 2018). This is because of the anticipated future health and future financial costs for the National Health Service (NHS) (ibid.). The campaign which targets children and families, but also encourages everybody who is 'at risk' (Evans, Colls and Hörschelmann, 2011) to "get on board", enacts a mode of power. The campaign encourages individuals to bring a potential future risky body into the present and to take action to avoid a further flawed self. The campaign distributes images of a risky body and proposes a promissory narrative regarding living longer and having a better future in exchange for making small but sustainable changes (Coleman, 2013). Changes include eating well and moving more. Following food recipes and guidelines and taking advantage of local services including free exercise classes (Hardy and Asscher, 2011; NHS UK, 2019).

The Change4Life campaign draws attention to what influences individuals' behaviours. It highlights trends in modern life including entertainment systems contributing to increased sedentary activity and the availability of fast foods contributing to less healthy eating (NHS UK, 2019). The discourse associated with this campaign, nevertheless, places responsibility predominantly with individuals who are encouraged to make modifications and regulate their behaviour based on guidance offered. This expert knowledge, evident in advertising messages including those encouraging mothers to exert authority (Lupton, 2013a), contributes to neoliberal subjectivity.

The 'One You' campaign initiated more recently by the National Health Service (NHS) and Public Health England (see: Public Health England 2018) follows a similar sentiment. The campaign encourages individuals to make changes to live well and offers a range of guidelines. One guideline suggests working towards 150 minutes of moderate exercise per week in chunks of at least 10 minutes or more to boost mood and reduce the risk of physical health problems. Resources including exercise tips, recipes, and workout apps such as the Couch to 5k app are provided to help facilitate this and drive changes. As the introduction acknowledges however (see section 1.2.4.3), such resources are intended to empower individuals to "take control" and combat potential health problems (Public Health England, 2020).

The attention towards individual responsibility throughout campaigns like these is perhaps unsurprising. Over the last decade, categorisations such as the "Age of

Participation” have arisen. Individuals are expected to actively make behavioural changes in order to live better (Public Health England, 2017).

3.3.2.2 Well-being and adhering to ideals: evidence within academic coverage of public health marketing and policy

The emphasis on individuals’ taking responsibility to manage their well-being is further striking within academic literature that is relevant to public health policy and marketing. Concerns within this literature include poverty, product safety, and consumption lifestyles (Sirgy, 2008), in addition to concerns regarding over-eating, poor dietary habits (Bahl et al., 2012) and other lifestyle behaviours relevant to health. Bahl et al. (2016) state that health is “undoubtedly an important context” (ibid, p.208), Askegaard et al., (2014) meanwhile, argues that food and health are particularly important regarding technologies of the self and control.

Briley and Aaker (2006) consider policies which encourage individuals to think about their aspirations or their responsibilities. They suggest that individuals are focused on hedonic goals and will work towards these by engaging in self-regulating behaviours (e.g., adopting a preventative lifestyle to avoid health problems). Moller, Ryan and Deci (2006) also draw attention to what individuals can do. Corresponding with well-being perspectives such as SDT which advocate autonomy, the authors suggest that it is important for policies to have autonomy-supporting messages relative to fear-mongering ones when trying to encourage a healthy lifestyle. This is so that individuals can commit to making changes considered better for them (e.g., eating nutritionally better foods) with less state intervention.

Bahl et al., (2012) and Bahl et al., (2016) demonstrate further modifications that individuals can make. The authors focus on mindfulness. Mindfulness is referred to here as awareness and attentiveness to ones behaviour. Mindfulness is considered as deliberating over decisions and exercising behaviours considered better for short-term and long-term well-being. The authors acknowledge the role of businesses, policymakers, and the resources they provide for helping individuals make “better choices”. Attention is, nevertheless, “mainly directed toward consumers” (Bahl et al., 2016, p.199). The authors discuss the importance of empowered consumers exercising agency by changing habits. Changes can include no longer responding to external cues such as food packaging, smells, or distance to food. Furthermore, no

longer eating impulsively (Bahl et al., 2012). Bahl et al., (2016) argue that this can facilitate better physical health and experiences of enjoyment (Bahl et al., 2016). Aaskegard et al., (2014) discuss the moralisation of food and acknowledge that the policing of food and food-related behaviours has reached new heights. The behaviours which Bahl et al., (2012) and Bahl et al., (2016) acknowledge can be judged as “good” and “rational” (Aaskegard et al., 2014).

3.3.2.3 Well-being and adhering to ideals: further academic coverage

There is further evidence that well-being is often linked with individual responsibility and particular sociocultural ideals. Sointu (2005) explicitly states that well-being is a “normative obligation chosen and sought after by individual agents” (ibid, p.255). They support this claim by engaging with discourses from two significant albeit very different newspapers in the UK. These are *The Guardian*, a broadsheet, and the *Daily Mail*, a tabloid. Though the discourses the author focuses on are at least a decade old, Sointu (2005) identifies a range of activities (that remain relevant) which individuals have been encouraged to proactively engage in to manage well-being.

Activities found to be meaningful in the late 1980s and early 1990s include those allowing busy individuals to relax, find comfort and pleasantness, or regulate mood. Activities promoting physical health (as encouraged by experts, advertisers, and entrepreneurs) are also considered meaningful. Activities found to be meaningful from the 2000’s include being creative, confident and social at work for productivity. Also engaging in beauty regimens or doing exercise to achieve a desirable appearance and convey self-care. Consuming alternate health products – which are focused upon in studies which chapter two acknowledges (e.g., Thompson, 2004) - are also identified as meaningful.

Before embarking on a critical project involving a diverse range of self-improvement practices (see Cederström and Spicer, 2017), Cederström and Spicer (2015) also suggest that to be well has become a moral obligation which has “wormed itself in” (ibid, p.3) to various aspects of everyday life. The authors posit that individuals living in a contemporary consumerist society are inclined to constantly make better choices. They acknowledge that these choices are influenced by common discourses which encourage self-governance. This can include discourses which insinuate obese bodies are sick, lazy or irresponsible and require surveillance and control (Rail, 2013;

Lupton, 2013a). Cederström and Spicer (2015) suggest that various activities have, therefore, become mainstream. Though not exhaustive here, examples include following fitness gurus, managing ones diet by attending weigh-ins, partaking in confessional chats at slimming groups, or only having “measured pleasures”. That is, limited treats due to tracking the nutritional content of food. The authors recognise that for those with access, self-tracking technologies such as wearable devices or apps are also mainstream. Though published earlier, this compliments the recognition from other consumer researchers (e.g., Jenkins and Denegri-Knott, 2017) that self-tracking technologies are significant within everyday life.

Chapter two already acknowledges some literature (e.g., Giesler and Veresiu, 2014; Yngfalk and Frybeg Yngfalk, 2015; Ashman, Patterson and Brown, 2018) which suggests different ways individuals participate in self-governance. Additional CCT literature which is only acknowledged thus far in the introduction also reinforces points raised within this chapter. Comparable with points raised by scholars such as Cederström and Spicer (2015), Mo시오 and Beruchashvili (2010) produce relevant insights regarding a Weight Watchers group based in the United States of America (USA).

As Mo시오 and Beruchashvili (2010) acknowledge, Weightwatchers is the world’s largest support group for weight loss. Members (predominantly female) pay, and gain access to resources including point-based meal plans and weekly meetings. These resources help them be further mindful about food and help with tackling overconsumption. By focusing on how support groups help to facilitate a consumers pursuit of well-being, Mo시오 and Beruchashvili (2010) illustrate ways that members strive towards food-related goals with the support of other members. They follow a spiritual and therapeutic guided ethos. This involves finding comfort in confessing ones “condition” and failing relationships with food. This also involves participating in social surveillance techniques including weigh-ins. These are found to contribute to feelings of accountability. Members also share and applaud the achievements of others.

Comparable with meaningful activities recognised by Sointu (2005), Featherstone (2010) also acknowledges that within consumer culture there is “an imperative, a duty” to work on the body and ensure it is not reflective of a “flawed self” (ibid, p.196). Working on the body by ensuring it does not become fat or look too old before its time (if a women) or working to increase muscle (if a man), can arguably open up

opportunities. This includes more pleasurable experiences and better relationships, as is the case for models, celebrities, and other media stars who “exemplify the good life” (Featherstone, 2010, p.198). Such a sentiment corresponds with points from Dittmar and Halliwell (2010). The author suggests that better relationships and feelings of happiness, control or autonomy are more attainable when managing the body in ways that strive towards particular (gendered) ideals.

3.3.2.4 Further critiques relevant to individualistic views of well-being

This chapter demonstrates thus far that well-being is often depicted as something attainable when individuals are agentic and proactive. As White (2016) argues, there is a consensus amongst many that well-being is experienced when individuals employ resolve and technique. It is evident, however, that individuals are also often guided by neoliberal discourses. Individuals are encouraged to address their at-risk body and improve well-being by engaging in (prescribed) practices which are reflective of wider sociocultural or socioeconomic ideals. From a Foucauldian perspective, then, such individual autonomy is seemingly an illusion (Rose, 1999; Shankar, Cherrier, and Canniford, 2006).

Notably, such portrayals of well-being do not only shift responsibility onto individuals. They also potentially induce individual guilt. Individuals who do not wilfully perform particular behaviours may be judged as irresponsible, lazy (Rail, 2012; Lupton, 2013a), “slothful” (Featherstone, 2010: p195), or a “drain” on health care resources (Le Besco, 2011). This can arguably compromise the well-being of (now stigmatised) individuals (ibid.).

Such portrayals of well-being also encourage the backgrounding or concealment of alternate ideas regarding ways well-being can be enhanced. Focusing excessively on nutrition when making food decisions, for example, is arguably constraining (Block et al., 2011). Block et al., (2011) highlight the significance of emotional and psychological nourishment. This is contra to focusing predominantly on food as functional and medicinal. Considerable attention is given by the authors to physical health and ways this can be managed through wider marketing strategies including food and menu labelling and managing the availability of food. Recognition is also given towards benefits associated with regular social meal-times. The authors further acknowledge the pleasure that can be obtained from consuming foods.

Mugel, Gurviez, and Decrop's (2010) interpretive study which is relevant to Transformative Consumer Research (TCR) - a movement dedicated to understanding and improving personal and collective well-being (Mick et al., 2012) - further demonstrates how individuals can experience other benefits associated with food. Drawing upon their findings, the authors suggest that well-being emerges during 'emancipation'. This is when individuals can choose likeable foods and have the required resources to buy food. They recognise that 'immersion' also contributes to well-being. This is particularly so when individuals capitalise on their skills to make food, when they appreciate food made, and when they enjoy the moment of eating with others. Sharing foods and embracing the sensory processes such as by taking time to enjoy making food or being attentive to the colours and taste properties of food can also contribute to well-being. Specifically, the authors suggest that individuals can experience a sense of authenticity when choosing foods. They can feel a sense of achievement and pride when giving attention to food recipes and when making food by drawing upon their skills or being creative. Individuals can also experience pleasure or joy when eating food.

According to Mugel, Gurviez and Decrop (2019), therefore, well-being is not so individualistic. It is a dynamic and meaningful experience which comprises memorable activities but also contextual conditions. Contextual conditions include time, physical space, recipe ideas, and social companions.

Other authors, Honoré (2015), for instance, contest some of the ideals which are typically advocated for promoting well-being, and celebrate slowness instead. Though not listed exhaustively here, suggestions for slowing down include taking time to appreciate food rather than focusing on its nutritional content or treating eating as a "pit stop" (ibid, p.56). Another suggestion entails reaping the pleasurable benefits of exercising which can include connecting with nature, feeling more relaxed, or socialising with others. These suggestions are comparable with further points which Cederström and Spicer (2015) make, who notably do not overlook alternate ways to be well. The authors recognise the value of taking a break, for instance. Insights from Honoré (2015) also resonate with the work of Hodgkinson (2005). Albeit with a more extreme tone, Hodgkinson (2005) argues that being idle can be good. The author proposes ways of achieving healthy idleness. This includes taking time for a leisurely lunch rather than focusing on fast food for energy and productivity, resting when ill, and walking for pleasure.

3.3.3 Well-being as Emergent and Relational: Going beyond Individual Agency

The previous section establishes that there are certain moral undertones relevant to well-being approaches. Nevertheless, whilst disciplining discourses can be influential (White, 2017), the focus is mainly on individuals exercising agency to feel and do better. The section also acknowledges alternative ideas regarding ways of experiencing well-being. Though attention turns again to what individuals can do, the significance of other human or non-human bodies is implicit to some extent in some of this literature, albeit is recognised as more contextual. This review now considers other conceptualisations of well-being. The section focuses on academic literature which considers well-being as emergent and relational. This literature is notably rather recent. It is also relatively sporadic.

3.3.3.1 Well-being as mediated between individuals, communities, spaces, and places

Coverage of well-being as emergent and relational is evident to some extent within community well-being and geography literature. There is confusion regarding what community well-being means (Lee and Kim, 2014). There is, however, an increasing interest in the well-being of wider collectives as well as individuals (Lee, Kim and Phillips, 2014). For these latter authors, community well-being can be defined as a state whereby the needs of a community are fulfilled. This is synonymous with terms such as “being well together” (Atkinson et al., 2017; Atkinson et al., 2019) which derive from definitions that refer to community well-being as a “combination of social, economic, environmental, cultural, and political conditions identified by individuals and their communities as essential for them to flourish and fulfil their potential” (Wiseman and Brasher, 2008, p.358).

Atkinson et al., (2017) suggest that components which are relevant to community well-being include people (e.g., friends, neighbours), place (e.g., opportunities for employment, education, housing, shops, secure futures, sustainability) and power (e.g., political voice and participation, inequalities of access to resources and opportunities). It is acknowledged, however, that various community well-being approaches are underpinned by assumptions which consider individuals as largely autonomous. This is despite the understanding that community well-being is about more than the well-being of individuals and that a groups’ lived experiences need

capturing (Lee, Kim and Phillips, 2014). Some approaches tend to focus on the impact of community life for an individual rather than the collective. Some approaches also consider the most authentic accounts of well-being to be those which emphasise changes to the inward looking self (Atkinson et al., 2017; Atkinson et al., 2019). Opportunities to explore well-being as more social and interactive are consequently limited (Atkinson et al., 2017). There is also attention diverted away from spatial and social inequalities (Atkinson et al., 2019).

Some scholars (e.g., White, 2017) do endorse a relational approach, however (Atkinson et al., 2017; Atkinson et al., 2019). White (2017) identifies people as “subjects formed within a specific social and cultural context” and acknowledges that well-being arises from “living in community – in whatever sense – with others”. The author argues that “subjective perceptions are anchored in material and relational contexts” (ibid, p.128). As White (2017) acknowledges, others have earlier made similar suggestions including Gergen (2009) who challenges the idea of autonomous beings and further suggests that individuals do not build relationships. To White (2017), relationships constitute individuals.

White (2017) also acknowledges Atkinson’s (2013) work. In earlier work, this author suggests that humans are social beings (Atkinson and Joyce, 2011). They later assert that well-being is “always” situated and relational (Atkinson, 2013, p.138). This means the individual is decentred. Well-being is evaluated as effects produced from encounters. This can be encounters between people, but also places including their histories and atmosphere and material objects (ibid.). Atkinson (2013) further recognises that well-being can change for better or for worse depending on relations encountered. New practices can also open up and contribute to well-being as new encounters emerge. The author suggests, nevertheless, that well-being can become stable because everyday life typically comprises of habituated routines and familiar practices (ibid.). Scholars including Smith and Reid (2017) also endorse the idea that well-being is “situated and emergent” (ibid, p.11). They suggest that individualistic perspectives, and those which box well-being into pre-determined categories, are limiting. Such a perspective is evident within further literature which focuses on individual experiences but considers interactions which effectively constitute an assemblage (Atkinson et al., 2019).

Conradson (2005), for instance, seeks to extend conceptualisations of therapeutic landscapes by focusing on the relational dimensions of self-landscape encounters.

The idea that landscapes have intrinsic therapeutic properties is contested. Instead it is suggested that therapeutic experiences derive from the engagement between individuals and the wider setting. Attention is given to ways well-being is implicated psychologically and socially for individuals with disabilities attending a short-stay respite care place. Here, individuals encounter not only the material services provided but also the surrounding accessible natural environment. Insights demonstrate that guests can do new things as a consequence of such interactions. They can build social relationships with other guests. They can think and feel differently about themselves, which leads to new opportunities such as an enhanced confidence about oneself and attempts to try new activities once returning home. They can also experience novel and exciting moments which differ from the ordinary by engaging with nature. They have opportunities to watch birds or make contact with other wildlife. It can be interpreted from this literature that aspects typically associated with individualistic hedonic well-being or eudaimonic well-being perspectives are produced instead during interactions with others.

This is further evident within Bell et al's., (2015) study which considers the capacity for coastal spaces to be therapeutic. Based on their findings, the authors categorise four key therapeutic experiences. These are symbolic experiences, social experiences, achieving experiences and immersive experiences. Symbolic experiences can include places generating a sense of belonging, places signifying important relationships with others, or places signifying shared experiences such as family traditions. Social experiences include opportunities for conversation, companionship, and leisure activities. Achieving experiences can include the coastal space enabling the pursuit of fitness goals or the tailoring of activity workouts in a pleasurable setting. Immersive experiences include flow. Bell et al., (2015) recognise that inspiring experiences such as ones facilitating reflection or engagement with nature can also be immersive. Experiences can also be restorative when experiencing haptic sensations from elements such as the sun, wind, or temperature. Bell et al's., (2018) review acknowledges the potential for beach-going practices to produce positive well-being effects. They suggest this is contingent upon different people and the relations they encounter. This can include their current and past life circumstances, socio-political norms, and skills and competencies to negotiate particular interactions and engage in a practice effectively.

3.3.3.2 Revisiting ideas associated with assemblages

The literature which section 3.3.3.1 reviews indicates that well-being can emerge from (therapeutic) assemblages comprising human and non-human components. Terms such as “landscape” are employed more frequently, however. In general, literature which explicitly refers to assemblages to discuss wellbeing is rather sparse. Before elaborating on this, this section turns towards clarifying further ways that ideas relevant to assemblage thinking can be employed. This is to familiarise the reader.

To recap, chapter two acknowledges that ideas relevant to assemblage thinking have become particularly prominent in publications drawing upon ANT or adopting ideas stemming from Deleuze and Guattari. These latter authors do not focus on individuals as predominantly agentic. They instead suggest that there are heterogeneous bodies with the capacity to affect (i.e., make a difference and produce physical, psychological, social, political, emotional or biological changes) and be affected. This can occur when connecting with other bodies and forming an assemblage (Deleuze and Guattari, 1987). An assemblage can be organised and rigid, or more flexible and transformative. Affective capacities emerging in the former are more limited contra to the latter (ibid.). Table 3.1 offers insights from the literature which focus on these ideas. The table offers examples of insights from literature which are relevant to earlier points which this chapter articulates.

Reference	Context	Relevant Insights / Examples
Fox et al., (2018)	Obesity and slimming	Fox (2002) acknowledge elsewhere that a slimming body is one that can concentrate and strengthen its relations with food, with the hope that the slim body yet to be attained will be free from the “shackles of unconsummated desire” (ibid, p. 358). Here, it is found that a slimming body may be de-territorialising from an obesity assemblage whereby certain foods including sweets, chocolate, and cakes, can become territorialising. Food choices can be affected by other relations. These include marketing strategies (within) supermarkets, accessible food outlets, finances framing what foods are affordable to buy, and the foods that family members like. Attempts to change relations with food can become contingent on other relations. This can include the ability to overcome the greater complexities and sense of chore from food shopping, the ability to buy different foods with the same budget, or the ability to stick to constraining guidelines offered by slimming clubs.
Coffey (2019)	Body image	Women are more likely to associate body image concerns with health and well-being than men who emphasize more so the significance of mental health and stress. “Ugly feelings” ⁸ deriving from body image concerns can produce limited capacities for women to establish new relations. Worries about personal appearances which can ‘flare’, for example, can be restrictive and lead to increasing bodily scrutiny as well as reproduction of narrow body ideals. Deeper feelings such as “disgust” can produce further rigid relations. Foods re-territorialised as unhealthy may no longer be consumed, for example. There is also the potential for dangerous fixations with food and an all-consuming relationship with exercise and reduced diet to unfold if relations intensify.

Table 3.1 Examples of further insights from wider literature applying assemblage ideas

⁸ As Coffey (2019) acknowledges, and as is evident in earlier work (e.g., Ngai, 2005), “ugly feelings” are perceived as nastier, enduring feelings (e.g. envy, irritability, anxiety, paranoia, disgust) which manifest in capitalist society and lead to a willingness to reconfigure oneself to avoid anticipated dangers such as being ‘left behind’.

Reference	Context	Relevant Insights / Examples
Leith (2016)	Weight loss	<p>Leith (2016) conducts a semi-autoethnographic project and directs attention to multiple affects emerging when pursuing weight loss. The author illustrates how one can become more organised and disciplined but also more liberated when engaging in weight loss practices. Attention is drawn to negative assemblages associated with a fatter body (e.g., lazy-undisciplined). The author suggests negative associations are perpetuated by power relations and discourses that fuel a desire to slim down to a 'normal' size. This is compounded by limits such as feeling uncomfortable in retail spaces and having limited positive social encounters with others due to becoming fatter. Consequent behaviours can lead to 'molar' and organised ways of thinking, such as thinking about food as 'good' or 'bad' and scrutinising ones' body size. However, rather than just thinking about cutting weight and potentially feeling 'better', Leith (2016) acknowledges that more can be done when engaging in weight loss practices. Attempts to lose weight can facilitate new and less rigid capacities. New relations with exercise and the outdoors (when walking more) can generate pleasure for example. Furthermore, being outdoors can lead to new desires such as watching wildlife.</p>

Table 3.1 Examples of further insights from wider literature applying assemblage ideas (continued)

3.3.3.3 Well-being as explicitly emerging from (different) assemblages

Well-being is briefly referred to in the second example included in Table 3.1. Generally, though, these examples utilise assemblage concepts to examine or discuss in-depth other issues. The final study within Table 3.1 focuses on offering a critique regarding the different ways that fat bodies are positioned in a neoliberal society, for instance. Yet, bearing in mind aspects that can be associated with well-being (e.g., positive or less positive feelings, social relationships, engagements with nature and so forth), it is clear that ideas relevant to assemblages can be useful for thinking about well-being.

Scholars including McLeod (2017) recently employ Deleuze-Guattarian ideas in a quest to revitalise the concept of well-being as emergent and relational. This section now turns attention to detailing this literature. This helps to demonstrate the productive potential for exploring well-being further in a fairly novel way.

McLeod (2017) challenges various other well-being perspectives and offers findings which demonstrate ways well-being is emergent and relational for individuals with experiences of depression. The author contests suggestions that well-being is an internal individual state requiring optimisation. The author also contests perspectives which suggest individuals are rational, proactive and autonomous. McLeod (2017) further challenges social determinant approaches including the Capabilities Approach (Sen, 1985). To clarify, this approach demands the importance of what individuals are capable of doing and being for living a fulfilling life.

Notably, some scholars (e.g., White, 2016; Duff, 2014) highlight the relational aspect of this approach. Duff (2014) posits its commonalities with ideas relevant to Deleuze as well as Spinoza regarding joyful affects. They draw attention to the stance that Sen (1985) offers which suggests capabilities are not pre-determined but are developed within an interconnected network of activity with others, whereby what is valued is “subject to recurrent negotiation and experimentation” (Duff, 2014, p.84). Yet, comparable with Duff’s (2014) further observation that the capabilities approach is weaker at understanding ways capabilities are gained, cultivated, maintained or lost, McLeod (2017) suggests the approach has limits for understanding how the material world impacts well-being. This is because the approach still emphasises the agency possessed by empowered individuals. The author argues that forms of

agency are fixed in this approach, as particular capacities are judged to be more fully human than others. McLeod (2017) further challenges perspectives which focus on ways in which power operates on individuals and mediate well-being, suggesting that it is necessary to go beyond this. This alone helps to justify why exploring well-being from a relational perspective is valuable.

As Strathern and Stuart (2017) acknowledge, McLeod (2017) does not deny individuals' (culturally constituted) view of themselves as agentic. Attention is, nevertheless, directed towards how individuals' function within assemblages comprising other relations that facilitate the co-production of new actions. The author thus draws upon Deleuze and Guattari (1987) to conceptualise the "wellbeing machine". This is articulated as comprising four assemblages which are established in response to the limits or problems associated with another collective body. The author suggests that movement can occur between the assemblages, depending on what occurs in everyday life. The author focuses on how particular assemblages configure to begin with and advocates the term 'Collaborative Connective Labour' to account for the efforts and work involved from non-human bodies and human-bodies which contribute to relations forming. The author also draws attention to affective capacities emerging within each assemblage.

The first two assemblages which McLeod (2017) articulates face the strata and are organised. The author considers the first assemblage more organised than the second. The first, the 'Becoming-Depressed' assemblage, establishes when individuals seek ways to function better. It comprises of relations such as person, doctor, depression diagnosis, knowledge about depression linked with wider institutions, and medicinal pills. Within this assemblage, understandings about depression and anti-depressants shared within a health service encounter contribute to individuals imagining their body as one that can be treated with medication. Further collaborative work includes investing in the idea of the medication as an effective solution, being attentive to side effects, developing trusting relationships with health care professionals, sharing concerns, and habitually taking the medication found to work best. The author suggests that habitually taking medication can contribute to the stabilisation of the assemblage. Disruptions to the assemblage, however, can include forgetting medications or the medication producing unwanted side effects. Affects emerging from this assemblage, which are low intensity, are found to include feelings of relief and control. The author notes that whilst low intensity, these affects are welcome after a period of immobilisation or despair. The author acknowledges that

other affects can emerge if the assemblage is extended. Affects including a sense of belonging can be produced when connecting with others at support groups, for instance.

The second assemblage, the 'Becoming-Authentic' assemblage, expands agentic capacities further. It enables a 'relative de-territorialisation'. As chapter two acknowledges, this involves moving away from particular boundaries, albeit in a limited way (Deleuze and Guattari, 1987). Individuals emerging from this assemblage actualise imaginative capacities by considering what else they can do to mediate well-being. They are found to direct attention and energy towards not just adhering to medication but to becoming more enlivened. Well-being can, therefore, be linked with the attentiveness to the beauty of objects at home, with positive encounters between own bodily energy and spatial environment (e.g., when going for a walk, or when experiencing a sense of connection visiting familiar places and conversing with neighbours). Affects co-produced in this assemblage include a sense of autonomy, optimistic feelings, pleasure and vitality. Whilst various bodies and resources contribute collaborative connective labour (including accessible environments, for example), emphasis within this assemblage is notably on the individual and their openness to change. Neoliberal ideals including autonomy, therefore, become reinforced.

The third assemblage articulated is the 'Becoming-Indeterminate' assemblage. This faces away from the Strata. There is greater potential to de-territorialise from boundaries, establish new connections, and to be more experimental. More intense affects are generated compared to affects generated within the aforementioned assemblages. McLeod (2017) suggests that characteristic of this type of assemblage is the potential actualised to explore new activities, have social relationships, and do "really" exciting or "very" interesting things and have "fantastic" memories (ibid, p.110).

The fourth assemblage is the 'Becoming-De-stratified' assemblage. This is characterised by a lack of stability and decomposing relations that limit the capacity to act. This assemblage is found to form when an event generally weakens an individual, or when encountering positive relations that are pushed to the limit. In the literature reviewed within chapter two (e.g., Fox, 2011), it is suggested that a healthful assemblage is one whereby limits and the potential for new possibilities are pushed. It is also evident that Deleuze and Guattari (1987) advocate de-territorialisation and

lines of flight. McLeod (2017) suggests here that a cautionary stance should be adopted. Deleuze does warn that there should be “doses” of caution when experimenting (Deleuze and Guattari, 1987, p.150). Here, McLeod (2017) suggests that extending life to the limits is not necessarily the best. This is one reason why a more stable assemblage comprising limited relations and affects can sometimes be favourable.

3.4 WELL-BEING AND CCT: A NOVEL, RICH OPPORTUNITY?

The previous section demonstrates that well-being can be viewed as emergent and relational. New meaningful feelings and actions can emerge from human and non-human encounters. Section 3.3.3 reviews literature which suggests that assemblage thinking can be relevant for thinking differently about well-being. This section elaborates on the value of this for exploring well-being. The section further considers how thinking about well-being relationally can be useful for contributing to CCT.

3.4.1 The value of thinking about well-being as emerging from assemblages

McLeod (2017)'s research is fruitful. It illustrates in significant depth how experiences of well-being are dynamic and mediated between different human and non-human components which work together. McLeod (2017) gives novel attention to different resources, power relations, work efforts, and capacities (e.g., imaginative, attentive) which are required for assemblages to be formed and maintained. The author also accomplishes a more evaluative account of well-being by exploring whether affects and capacities emerging from an assemblage are welcome and productive depending on prior experiences and assemblages emerging from. Taking inspiration from such a perspective can be valuable. McLeod (2017) suggests well-being needs to be explored through a series of assemblages that emerge from everyday life and invites others to consider how assemblages shaping well-being can be articulated in different situations. Such a perspective also provides a novel opportunity to contribute to a growing body of work within CCT adopting relational thinking, which as the prior chapter highlights, can be valuable and enriching.

3.4.2 Making links with literature associated with CCT: pertaining gaps

Notably, some studies relevant to CCT drawing upon assemblages do acknowledge the relevance of prior experiences. Epp, Schau and Price (2014) explicitly acknowledge previous practices engaged with to explore how practices are reconfigured and how they are meaningful. Kozinets, Patterson and Ashman (2017) also occasionally refer to participants' prior experiences to further illustrate ways that engaging in a 'network of desire' is meaningful. Attention towards affects and capacities produced from assemblages bearing in mind previous ways of becoming affected by relations is limited, nevertheless, within CCT literature. To be more attentive to this, as is the case with McLeod's (2017) study, can subsequently be potentially useful for addressing opportune areas which the preceding chapter identified. It can be useful for considering whether new assemblages forming contribute to the status quo or enable lines of flight, for example. This is whilst also simultaneously addressing whether and how changes produced from assemblages are meaningful and transform well-being.

As the introductory chapter highlights, attention towards well-being is fairly limited in academic literature relevant to CCT. Some earlier studies do associate well-being with relationships with others. This includes the work of Costley, Friend and Meese (2015) which acknowledges that women may experience greater happiness and evaluate well-being more positively when constituted by "relational experiences and processes" (ibid, p.2015). These authors recognise that well-being can change when depending upon close connections with family and friends, when being in nature, and when caring for nature. There is scope to leverage ideas underpinned by relational assumptions with well-being further, however.

Well-being is inferred to be relational in Patterson, Kozinets and Ashman (2019) recent work which discusses how engaging in food porn can cultivate well-being. To acknowledge a few examples, the authors suggest that this can facilitate feelings of pleasure, the invention of a 'better' digital version of oneself and the enjoyment of 'aspirational self-extension'. It can also encourage collaborations with others and fuel a desire to continue participating in this enhancing practice and in turn continue realising well-being. Prior events are not given detailed attention, however.

There are further limits to insights regarding well-being as emergent and relational in other CCT research which mentions well-being explicitly or considers well-being as a

central line of enquiry. Some literature depicts well-being as something that can be attained when seizing opportunities for particular forms of consumption. Though reasonably dated and based solely on advertisements in the USA, Belk and Pollay (1985) illustrate that advertisements exemplifying the 'good life' are focused on hedonistic luxuries and pleasures. Some literature links well-being with resistance. This is evident in the work of Thompson and Arsel (2004) which acknowledges activists that refute the negative impact of coffee shops on the economic well-being of other coffee growers. Well-being is also often linked with pursuing particular health or bodily ideals (as evident throughout the aforementioned literature including Thompson and Troester, 2002; Thompson, 2004; Moisiu and Beruchashvili, 2010; Featherstone, 2020).

Only sometimes, then, is it apparent that well-being can be forged by human and non-human relationships. There is consequently a reasonably novel opportunity to give greater attention to how well-being is mediated in different ways in everyday life – an area acknowledged previously as worthy of further exploration.

3.5 CHAPTER SUMMARY

This second part of the literature review discusses existing coverage of well-being. The chapter illustrates that well-being is complex, albeit highly significant. The chapter conveys that well-being is often viewed from individualistic perspectives, whereby well-being is a residing internal state and/or a state enhanced by individuals engaging in particular behaviours. The chapter also highlights alternative perspectives. This includes perspectives which endorse well-being as emergent and relational. That is, experiences of well-being are implicated by significant interactions between individuals and other human or non-human components. This chapter demonstrates that it is fruitful to consider further ways that well-being is mediated in everyday life from interactions established. Furthermore, the chapter conveys that it is opportune to consider how experiences of well-being are meaningful bearing in mind prior experiences. The chapter suggests that this is especially valuable given the growing attention to assemblage thinking in CCT and given the scope for opportunities to build upon such literature in CCT. There is also limited work focusing on well-being in consumer-cultural oriented research thus far.

The next part of the literature review turns attention to literature regarding self-tracking.

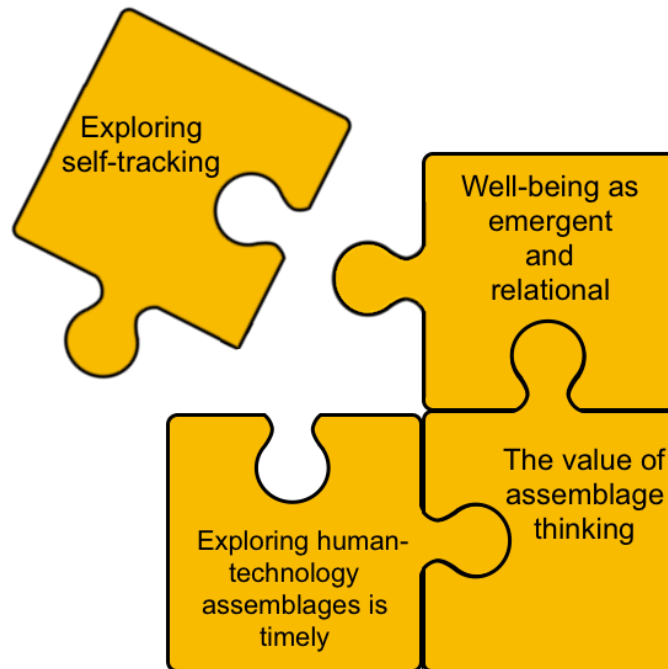


Figure 3.3 Key points from the chapters and relevant points addressed next

CHAPTER 4: SELF-TRACKING

4.1 INTRODUCTION

Chapter two made evident that there is increasing attention within CCT literature to human and non-human relations. It became evident from the prevalence of literature drawing upon human-digital technology assemblages that exploring affects and capacities emerging from these assemblages could be particularly relevant to explore further. Chapter three made evident that there is a reasonably novel opportunity to view well-being as emergent and relational. Such a perspective suggests well-being emerges from interactions with other human and non-humans. Moreover, it can recognise that previous experiences are not disentangled from current ones and that this may influence whether changes are welcome.

This chapter now turns attention towards the specific context that this thesis focuses upon. The context is self-tracking. Coinciding again with the first research objective (reiterated below), this chapter reviews self-tracking literature and discusses why and how self-tracking is a timely and worthy context to study further for contributing new theoretical insights. Points expressed by Arnould, Price, and Moisio (2006) underpin this review. These scholars suggest contexts rich to explore are those which are culturally significant, important to the lives of many individuals, and with seemingly paradoxical or problematic aspects to address.

RO1:

To critically review the potential of exploring well-being in the context of self-tracking for contributing a CCT study with novel insights

The structure of the chapter is as follows: Section 4.2. acknowledges ways self-tracking is explained. Section 4.3 then turns attention towards dominant themes within literature regarding self-tracking. This precedes section 4.4, which highlights why relationships between well-being and self-tracking are timely to explore further. A summary of key points from this chapter and the literature review as a whole is then provided.

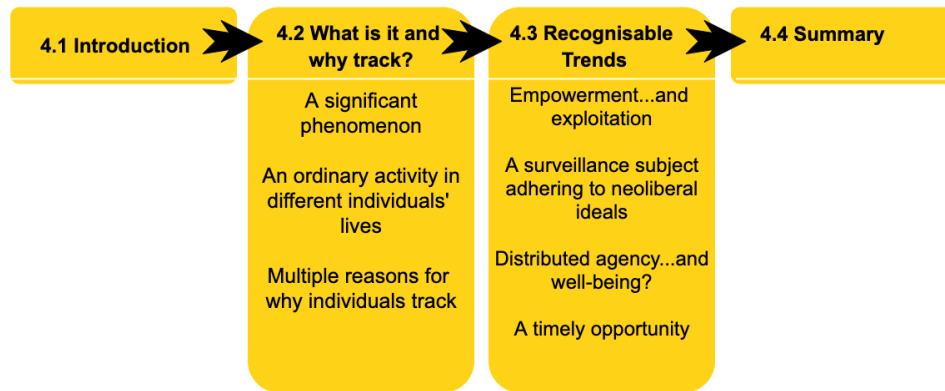


Figure 4.1 Chapter Four Structure

4.2 WHAT IS SELF-TRACKING AND WHY DO INDIVIDUALS TRACK?

This section reviews ways that self-tracking is typically portrayed within the existing literature. The section considers ways self-tracking is explained and acknowledges existing rationales given for why individuals self-track.

4.2.1 Self-tracking: a significant phenomenon

There are multiple definitions of self-tracking. Nevertheless, as section 1.2.1 highlights, self-tracking generally comprises individuals interacting with wearable devices or applications which allow for the constant generation of data about oneself (Lupton, 2016a, Swan, 2009). Individuals can track aspects such as exercise and food by interacting with wearable devices and applications that are used in connection with the wearable device (Canhoto and Arp, 2017) or by interacting with standalone mobile apps (Rich and Miah, 2017). Sleep is another aspect that can be tracked (Lomborg and Fransden, 2015; Gilmore, 2016; Kristensen and Prigge, 2018).

Self-tracking is not a new phenomenon. It is suggested that in ancient times the steps of Roman soldiers were counted (Ajana, 2017). Presidents including Thomas Jefferson are also recognised for using a step tracker (Bassett *et al.*, 2017). For over a hundred years, individuals have also been known to track their weight by using weighing scales (Crawford, Lingel, and Karppi, 2015). Wearable devices and apps have, nevertheless, become recently popular, and provide an alternate to traditional pen and paper tracking methods (Fox and Duggan, 2013). As section 1.2.1 illustrates, they have attracted a reasonably significant percentage of the UK population, and in

general, they are becoming recognised as appealing and meaningful in everyday life (Jenkins and Denegri-Knott, 2017; Zolfagharian and Yazdanparast, 2017). Some scholars (e.g., Prince, 2014; Ajana, 2017) acknowledge that their increasing prevalence may be due to their relative inexpensiveness and perceived simplicity of use. As Appendix A demonstrates, there are various branded devices and apps. These have captured the interest of various scholars (as subsequent sections of this chapter will demonstrate).

4.2.2 An ordinary activity in the lives of individuals

Self-tracking technologies have, historically at least, been predominantly of interest to dedicated self-trackers who constitute what is renowned as the Quantified Self (QS) community. This community was founded in 2007 by Wolf and Kelly, former editors of *Wired* magazine⁹. Since then, it has grown rapidly. Informal local groups are known for assembling and meeting interpersonally to discuss their interests and experiences. An annual global conference is hosted. Furthermore, a number of individuals are known for discussing tracking online and uploading “show and tell” videos (Lupton, 2016a; Smith and Vonthehoff, 2017). Members of the QS community wish to better understand themselves and their bodies by viewing perceivably powerful, objective, truthful data (Lupton, 2016a). They subsequently wish to optimise their behaviour or decision-making (Miebner, 2016). Assertions by Gary Wolf (2010) capture this. Wolf (2010) makes assertive remarks including:

“We use numbers when we want to tune up a car, analyse a chemical reaction, predict the outcome of an election. We use numbers to optimize an assembly line. Why not use numbers on ourselves?”

“We need help from machines”.

The QS community motto “self-knowledge through numbers” (Quantified Self, 2019), which is underpinned by the assumption that there is an authentic self (Sanders, 2017), echoes this sentiment.

⁹ An American magazine focusing on the significance of emerging technologies (Wired, 2019) which now has additional publication outlets including in the UK (Wired UK, 2019).

Self-tracking is arguably no longer a “highly specialised subculture” (Lupton, 2016b, p.113). This means that it is no longer exclusive to the QS community (Lupton and Smith, 2018). Self-tracking may be “pushed” onto individuals (Lupton, 2016b, p107). This can occur when self-tracking is endorsed within health care consultations (Rich and Miah, 2017; Ruckenstein, 2015). This can also occur when the technologies are advocated towards workplace employees (Moore and Piwek, 2017) or when there is “group hype” (Canhoto and Arp, 2017, p.42). Group hype can be explained as an expectation to lead a particular lifestyle and follow through with incentives promoting this (ibid.). Employees are encouraged to be more active and pay attention to diet to manage heart disease, blood pressure and stress (Zamosky, 2014; Giddens, Leidner and Gonzalez, 2017), for example. From a critical perspective, this is so that additional value can be generated for employers through increased employee productivity (Till, 2019) and increased profits (Charitsis, 2019a). Health and fitness devices can also be “imposed” (Lupton, 2016b, p110). Individuals with little choice can be tracked in institutions such as schools during physical education classes (Lupton and Williamson, 2017).

Self-tracking devices, which are recognised for becoming ubiquitous (Lupton, 2016a), may also be voluntarily engaged with. Individuals may privately self-track. Alternatively, they may track more communally through means such as sharing and comparing data with others (Lupton, 2016b).

4.2.3 Multiple reasons for why individuals track

The marketing literature offers several propositions and insights regarding why individuals self-track. According to Etkin (2016), it is “clear” (ibid, p.967, p.980) that individuals track because they can use information gathered to make changes which lead to living a more healthy and happy life (ibid.). Conducting focus groups with male and female trackers aged 25-32 in Germany, Canhoto and Arp (2017) find that aside from individuals being enthusiastic about a novel technology, the technologies are appealing because they are considered to have functionalities (e.g., ability to record steps, activity time or distance, or heart rate) which help address health and fitness goals. These goals, which themselves can influence adoption, include losing weight, moving more, or training for an event. The authors further find that seeing others with devices or being recommended one, can be influential. Ashman, Wolny and Solomon (2018) argue that individuals may track to regulate walking or calories consumed.

They also suggest, however, that to track and compare data with others can simply be irresistible in an increasingly digital world. Flaherty et al., (2018, 2019) find that health apps are engaged with to help support healthier food purchasing behaviour associated with weight loss goals.

In other disciplines, scholars suggest that individuals track because documenting activity and receiving validation is pleasurable (Lomborg, Thylstrup and Schwartz, 2018). Otherwise, individuals track to achieve their “best self” (Lupton, 2016a, p.68). This may be related to goals including losing weight, managing illness or avoiding illness (Lupton, 2016a, Rooskby *et al.*, 2014). Some individuals may track because they want to become a better spouse or parent, or they want to fuel or compliment a disciplined relationship with sport and exercise (Ruckenstein, 2014; Rooskby et al., 2014). This is evident in recent literature (e.g Hardey, 2019) whereby attention is given to ways self-tracking technologies are incorporated into the training activities of runners who have dual interests. These interests are to become fitter and enhance performance but also to seek insurance rewards. Why individuals track may also be influenced by gender. As Sanders (2017) acknowledges, market research has found that men are more likely to track heart rate, blood pressure, and training activity such as running speed, whilst women are more likely to track calories and daily activity.

These aforementioned insights alongside content from Figure 1.2, suggest that self-tracking is important to many individuals. Yet, as subsequent sections here demonstrate, there remains fruitful opportunities for research.

4.3 RECOGNISABLE TRENDS REGARDING SELF-TRACKING

This section focuses on dominant themes within the existing literature. This includes themes which correspond with portrayals of self-trackers as “victims of political and economic agendas” (Sharon, 2016, p.116). This also includes themes associated with literature focusing in particular on actual experiences of self-tracking and the capacities of both human (i.e. self-tracker, other self-trackers) and non-human (i.e. device, data) to exercise agency. Noteworthy is that some themes coincide with ones identified in earlier chapters.

4.3.1 Empowerment...and Exploitation

Self-tracking technologies are generally marketed in ways that could be interpreted as “techno-utopian” and “techspressive” (Kozinets, 2008, p.869, 870). Indeed, Lupton (2019a) recognises that self-tracking technologies can be marketed as exciting and as enhancing a (potential) users’ life. Scholars recognise that self-tracking technologies can accomplish this through the delegation of infographics, reward badges, and facilitation of challenges (Millington, 2016; Gilmore, 2016). These can help make devices “fun” and “cool” (Fotopoulou and O’Riordan, 2017, p.62). The *Apple Watch* recognisably enacts agency and responsibility by taking on the role of a coach and learning about the wearer to help guide them towards a more active, goal-orientated lifestyle (Beer, 2015). It is similar to a *Fitbit* device as it offers infographics and provides haptic, vibrating feedback regarding progress towards goals (Till, 2019).

Some scholars (e.g., Etkin, 2016) recognise some problems relevant to self-tracking. They find that walking activities may be undertaken more but enjoyed less due to a focus on measurements making activities seem more like work relative to being simply fun, for example. Nevertheless, other scholars further acknowledge the empowering potential of self-tracking. This is evident within the work of Karaponos et al (2016). The authors address a knowledge gap regarding how self-tracking technology is incorporated into everyday life and influences well-being for individuals in the USA. Drawing upon a well-being perspective which is comparable with ones which section 3.1.3.2 acknowledges, the author assumes individuals have pre-existing needs to be fulfilled. From their findings, the authors articulate that despite a decline in frequency in which individuals check data over time, feelings of competence and self-esteem can be enhanced when monitoring activity and having goal progress reinforced. Reviewing activity data can also prompt a greater sense of autonomy when changes are made which contribute towards an ideal self. Connecting with others and receiving support to meet goals (rather than competing) can further fulfil relatedness needs.

Though not explicitly referring to empowerment, Lomborg and Frandsen (2015) similarly suggest that needs including autonomy, control and competence are fulfilled. This is particularly so when self-trackers engage with data visualisations (e.g. charts and tables) which represent their activities and their efforts to work towards goals.

The authors similarly suggest that relatedness needs are addressed when communicating with others and sharing data.

The ways that self-tracking technologies are marketed tend to overshadow or conceal critical issues. In response to the “overtly optimistic view of self-tracking as empowering”, various concerns have arisen (Lomborg and Frandsen, 2015, p.1017). Privacy concerns have arisen (Fotopoulou and O’Riordan, 2017; Neff and Nafus, 2016; Lupton, 2016a), as have concerns with surveillance and self-trackers adding “fuel to the data economy” (Humayun and Belk, 2020, p.641). There are concerns about data protection (Armstrong, 2016) and third parties, including insurance providers and hackers (Troiano, 2017) utilising data (Canhoto and Arp, 2017).

As Milligan (2016) acknowledges, data becomes commodifiable during an individuals empowered pursuits. There are additional concerns regarding digital labour. Digital labour entails the capitalisation by others of data generated by individuals when doing activities or engaging in gamification. Scholars (e.g., Till, 2014) suggest that corporations may target individuals with profiteering products or employers may intensify surveillance on their employees. Like Milligan (2016) who refers to self-tracking consumers becoming prosumers, Charitsis (2016) argues that self-trackers can become a “prosuming self” but also a “prosumed self” (Ibid, p37). That is, they generate valuable data for themselves but also firms. Schüll (2016) offers a similar view. The author draws upon the concept of the ‘dividual’ – a concept referring to the conversion of individuals into “masses...data” (Deleuze, 1992, p.5) to suggest that individuals choices and actions can be increasingly assessed by governments and corporations who can use the data generated.

4.3.2 A Surveillance Subject adhering to Neoliberal ideals

Further concerns, not unrelated to the aforementioned, include those regarding surveillance subjects conforming to neoliberal ideals. Foucauldian ideas (discussed throughout the preceding literature review chapters) are particularly influential here. De Souza (2013) suggests in earlier work that self-trackers conform to neoliberal ideals and engage in self-surveillance by forever looking inward in the pursuit of self-optimisation. Depper and Howe (2017) reinforce this. They consider the potential for self-tracking technologies to intensify the imperative to act in ways which are constitutive of good health. They support this with insights from a focus group with

English State grammar school girls who use fitness apps. The authors demonstrate the potential for the apps to promote narrow bodily ideals which give the impression to others that one is being fit and taking responsibility for their health. Ajana (2017) also discusses how bodies become regulated and adhere to standards such as walking 10,000 steps. Reinforcing points from earlier work (e.g., Whitson, 2013; Till, 2014), Charitisis, Yngfalk and Skålen (2018) demonstrate how gamification can encourage a neoliberal, entrepreneurial self who seeks self-improvement. The authors discuss how Nike+ users share activity results, work towards badges which evoke feelings including pride, strive for milestones, and compete in challenges. They state that this attracts, retains, and leads to the governance of users.

Whilst En and Pöll (2016) also associate self-tracking as symptomatic of and perpetuating of, neoliberal ideology, the authors also adopt a less “bleak” (En and Pöll, 2016, p.5) perspective. Recognition is given towards the potential for self-trackers to track merely for fun or enjoyment with no real purpose, rather than merely for self-betterment. A similar sentiment to En and Pöll (2016) is evident within the work of Sanders (2017).

Sanders (2017) states that wearable devices and apps have become significant at a time when bodies at risk of becoming fat or obese are judged to be problematic. They suggest self-tracking objects are a governing mechanism, which also reinforce gendered body ideals. Referring to their own experiences, the author depicts that self-tracking technologies promote responsible behaviours such as by sending messages which invite one to act to reduce the risk of physical health problems including heart disease. The author further depicts that these technologies facilitate women who are addressed by particular fashion and beauty discourses to pursue bodily ideals such as fighting fat and dropping pounds. They also encourage women who are already accepting of and striving towards body and lifestyle ideals, to commit further to “increasingly finely tuned self-perfection projects” (ibid, p.52). The process whereby increasing control and scrutiny is exerted over female bodies in a way that is personalised, and intimate, due to the capacities of self-tracking technology, contributes to the entrenchment of “contemporary patriarchy” (ibid. p.48).

Nevertheless, Sanders (2017) also questions ways that individuals can resist or transgress normalising regimes and instead experience new possibilities. Sanders asserts that simply refusing to track is not viable. Self-tracking can be potentially more fruitful, if the focus of self-trackers is less on striving towards health or beauty ideals

or sculpting ones' body to perfection and instead on being more playful and experimental, however. They suggest that this can facilitate one to learn more about themselves.

Fox (2017) offers alternative ideas regarding resistance. One suggestion is to resist affects such as the responsabilisation of individuals who act to manage health (as is interpreted from a more biomedical perspective) and to focus instead on promoting health in terms of the capacities to engage productively with others. Another suggestion is to use self-tracking technologies as a means for individuals and communities to address health threats and opportunities together and provide data which can inform health policy development. A further suggestion is to organise against the interests of corporations such as fast food providers.

Noteworthy is that in relatively more recent work, Esmonde and Jette (2018) combine Foucauldian thinking with a socio-material perspective by employing ideas relevant to Actor Network Theory (ANT). Interestingly, the authors acknowledge that assemblage thinking associated with philosophers such as Deleuze can be relevant for studying interactions between individuals and self-tracking technology. They steer attention, however, towards further understanding how a "network of allies" become dependent upon (Esmonde and Jette, 2018, p.13). They explore how such a network – which otherwise can be interpreted as a network of humans and non-humans - enables self-trackers to become conventionally healthier and more responsible. Notably, the self-trackers here are predominantly female and already invested in wanting to make changes.

The authors focus on posts on *Fitbit* message boards from enthusiastic trackers. They present findings which illustrate that sedentary workers (who are constituted by office desks and computers and who engage with discourses which encourage movement to mitigate health) depend on various actors to move more throughout the day. Buildings to walk to, office space, and stairs, for example, are recognised as important allies, as are treadmill desks. To move more at work is contingent upon other privileges too. This includes having permission and having time. The authors acknowledge that white-collar workers are more likely to have these privileges. The authors further recognise changes that can arise for self-trackers who "confess" to gaining weight and who seek to get on the "right path" by losing weight. These changes include engaging in new activities such as running or modifying diet. It is found that these changes can also be contingent on others. To modify diet, for

example, may require individuals to negotiate food storage techniques with their partners. They also need time available to spend cooking meals. In light of the findings of the study, the authors clearly convey that individuals become established as increasingly ethical subjects when self-tracking and making changes. Albeit, this is a privileged practice for those with resources such as time, money, and a hopeful mindset.

It is perhaps unsurprising that various literature discusses self-tracking in ways which are associated predominantly with Foucauldian ideas. As section 3.3.2.3 acknowledges, scholars including Cederström and Spicer (2015) identify that self-tracking is linked with a moral imperative which coincides with wider sociocultural or socioeconomic ideals. Nevertheless, from this coverage, it is evident that an understanding of how individuals interact with self-tracking technologies and how such interactions contribute to well-being is limited.

4.3.3 Self-tracking can mediate well-being (but receives limited attention)

As the previous section suggests, coverage of self-tracking which explicitly acknowledges ways interactions with self-tracking technology can mediate well-being is somewhat overlooked. References to well-being are often brief. Esmonde and Jette (2018) refer to changes (e.g. engaging in new activities such as running races) which generate feelings of pleasure when trying to lose weight. Nonetheless, their emphasis is still predominantly on significant human and non-humans that enable self-trackers to be more responsible. Within Charitsis, Yngfalk, and Skálén's (2018) study, feelings such as pride are recognised. Nevertheless, their discussion quickly is linked back with ideas of a competitive body becoming exacerbated as a neoliberal subject by engaging in forms of "enjoyable control" (ibid, p.13) and producing valuable data for others. Some scholars (e.g., En and Pöll, 2016; Sanders, 2017) also recognise the potential for tracking to be experimental and playful but this is not empirically explored in depth.

Kristensen and Ruckenstein's (2018) study provides empirical insights regarding the potential for tracking to be somewhat experimental. Notably, the authors do acknowledge literature which focuses on self-trackers conforming to neoliberal ideals. They adopt an alternate approach, nonetheless, by viewing self-tracking as an "unknown" rather than "pre-defined ideological project" (ibid, p.3626). Insights from

members of the Danish QS community demonstrate that some self-trackers are not primarily concerned with an end-goal. Rather, they experiment with different technology to see “where it leads” (ibid, p.3630). It becomes clear that self-tracking can be pleasurable and immersive. It can also be fun and feel adventurous, enabling one to try new things not habitually done. This is until “hitting the wall”, whereby tracking feels restrictive, burdensome, or no longer valuable. In these instances, self-trackers turn to connections with other people or the environment. Insights from this study are seemingly strongly relevant to well-being as emergent and relational. Yet, the authors focus more explicitly on highlighting how the self emerges and is ‘defined, extended, reduced, or restricted’ (ibid., p3635) relative to discussing well-being.

Similarly, well-being is only touched upon implicitly in an earlier auto-ethnographic project which recognises that self-tracking can be positive and is not necessarily as limiting as first envisaged. To elaborate, Williams (2015) pursues a goal to lose weight after seeing photos of oneself and becomes entangled in what is articulated as an “anxious alliance” comprising body-device-data-others-algorithms-entrepreneurs. Whilst also attentive to a newfound obedience and submission to measurements, the author recognises better changes which result from becoming more disciplining and engaging in surveillance. These changes include enjoying accounting for food choices, feeling in control when not estimating food content or being blind to nutritional content, and experiencing feelings of freedom even when being calculative and choosing food recipes that can be accommodated by a tracking database. The author also experiences pleasure when exercising and seeing places. The author gives relatively more explicit attention to the uncertainty of self-tracking, and also directs attention to what else can be achieved after reaching goals and when participating more in networks of power by turning to track other aspects such as weightlifting workouts or sleep.

4.3.4 Self-tracking Assemblages...and Well-being?

Critiques focusing predominantly on self-tracking and the production of a neoliberal subject are not to be discounted. Nonetheless, the latter examples within the aforementioned section help to convey that more attention can be given to ways agency is exercised between human and non-humans. They also suggest, if only even more implicitly at times, that a particular self (who also experiences well-being in new, albeit sometimes limited ways) emerges. Kristensen and Ruckenstein (2018)

acknowledge that neoliberal forces are significant but prioritise attention towards how self-trackers “co-evolve”, for instance. Williams (2015), meanwhile, acknowledges that ideals surrounding optimisation manifest, but new capacities previously unrealised can also emerge when becoming entangled with devices, data, and so forth. Further studies published provide new, relevant insights regarding ways changes can be generated from interactions between individuals, their devices and their data. This section now turns towards reviewing such studies. Attention is given towards teasing out further whether, and how, well-being receives explicit coverage.

4.3.4.1 Situated relationships with self-tracking technologies...and well-being?

Literature relevant to CCT in particular includes Bode and Kristensen’s (2015) study. This focuses on Danish QS members’ interactions with self-tracking technology. The authors conceptualise a process entitled “doppelgängering” (ibid, p.5), whereby there are intimate and ongoing relations between an individual and a second manifested version of their (assembled data) self. This is portrayed as mediating new perceptions and actions. Bode and Kristensen (2015) suggest the process involves three modes of engagement: Enactment, Existence, and Entanglement. It becomes evident that through ‘enactment’ (comprising the transgression of cognitive constraints and heightening awareness of oneself by interacting with visualised data) that self-trackers can become more motivated towards reaching goals. It becomes evident through portrayals of ‘existence’ (entailing interactions such as reviewing data, sharing data with others, and reviewing data of others) that greater efforts to reflect upon ones’ goals and engage in self-disciplining practices to make improvements can be exercised. This helps optimise physical and psychological well-being as individuals reach for their full potential. Entanglement, meanwhile, refers to not only a better understanding of oneself from constantly tracking, but also tensions. Within this study, tensions include scepticism regarding how far the internalisation of a moral imperative to be responsible and focus on self-improvement should be taken. There may be a sense of loss if not tracking but tracking may also lead to pushing the body too far and risking bodily injury, for example.

Relevant insights are also produced in the work of Lupton, a renowned scholar, as evident by their many cited texts published regarding self-tracking. In recent work, Lupton draws upon relational perspectives including feminist new materialism and vital materialism to convey how data becomes meaningful and affective or loses its capacity to be as meaningful (Lupton, 2018a). Influential feminist materialist

perspectives stem from researchers including Barad (2003). Barad (2003) claims that humans are inseparable from other entities including objects, spaces, bodies, and places. Barad (2003) further claims that entities become something different when agency is enacted by another entity, evoking change. Such a perspective can be associated with the work of Haraway (1984). Haraway (1984) asserts that we are a hybrid of human and non-human. Haraway (2003) later suggests we are a companion living with, and co-evolving, with other human and non-human entities

Vital materialism perspectives, meanwhile, adopt the view that human and non-humans are intertwined. They further emphasise the emergent and unpredictable nature of affective relations (Lupton, 2018a). They can be linked with philosophers including Bennett (2010). Bennett proposes concepts including “thing-power” to refer to the ability for a human or non-human component/entity to express energy, be affective and make something happen (*ibid.*).

The value of such perspectives is demonstrated within Lupton and Smith’s (2018) study which focuses on Australians who track aspects such as physical activity, diet and sleep. They notably track these aspects for reasons including to help manage physical health conditions, strive for self-improvement, and become better for others such as their family. Interviews with 20 males and 20 females generate insights regarding significant capacities produced from recording data and monitoring oneself. These capacities include feelings of doing something positive, feelings of progress towards goals, feelings of control, planning actions to help reach goals, and experiencing a sense of achievement when reaching goals. The authors acknowledge these as resembling a moral imperative to be calculative and responsible. These insights resonate those from Lupton (2019c), who further focuses on capacities produced when tracking habitually. Other capacities acknowledged here include individuals with a heightened awareness of their bodily movements (e.g., sleep patterns which are perceived by some to also reflect mental well-being state, or physical activity levels). Lupton (2019c) recognises, however, that self-tracking can also be burdensome. It involves work and consumes time. It can also evoke disappointment and frustration when data reviewed is perceived as ‘bad’ and indicative of not meeting goals. The author further illuminates that tracking reinforces neoliberal ideals as individuals seek to manage and optimise well-being.

The burden that self-tracking can entail is also evident within Lupton (2019a) study. This study acknowledges that Australian women find it motivating to track activity.

This is especially so when setting goals and when enjoying step competitions with others. Data can, nevertheless, also be discouraging in particular situations. This can include when they are unable to meet the expectations set by self-tracking technology due to time and further demands such as caring responsibilities.

Lupton (2018b) focuses exclusively on Australian women monitoring their food consumption with apps. This is notably to manage ones' body and conform to health and body norms. Lupton (2018b) illustrates that engaging with the agential capacities of apps enables women to do or not do things which contribute to well-being. Brought to attention is ways affordances offered by apps including setting goals and recording food enable women to learn more about the nutritional content of food and feel in greater control when making food decisions. Further illuminated is the ability to scan foods when shopping which enhances convenience. Less enabling capacities, however, which are comparable with other findings aforementioned within this section, include apps inducing feelings of guilt when set goals are not met. Apps can also become too intrusive. They require considerable effort, which makes it difficult to work towards ideals. They can also potentially contribute to problems including eating disorders. The potential of which, is evident within an earlier publication that chapter three acknowledges (i.e., Coffey, 2019). Lupton (2018b) argues that because of this, apps can lose their "thing-power" (Lupton, 2018a).

Reasonably comprehensive, the preceding insights generally reinforce those produced when other contexts are explored. Indeed, Lupton et al., (2017) find a range of similar capacities emerge when Australian cyclists trust in their devices and their data to better understand their bodies functions, moods, well-being, or fitness levels. Better capacities include enhanced knowledge when reviewing data and when making sense of data in relation to bodily sensations. Cyclists also can feel pride and satisfaction when tracking and can further build social relationships when comparing data or competing with others. Less enabling capacities, however, include feelings of frustration or disappointment when data recorded does not reflect desired progress or when data is lost or does not sync effectively. Notably, maintaining routines associated with cycling (e.g., commuting on particular routes) can be significant, as can experiencing accomplishments that are part of such routines (including when uploading and reviewing data imbued with meaning, or sharing data and receiving recognition from others which generates further competent feelings). The authors argue that all this can contribute to well-being, which is associated with feeling "right" (Pink et al., 2017, p.10).

A review of these studies can produce various insights. Firstly, well-being is (only sometimes) explicitly referred to by scholars. For example, when depicting data as providing insights and enabling changes which can contribute to the “physical” or “psychological” well-being of individuals engaging with their “real” “authentic” self (Bode and Kristensen, 2015). Alternatively, when acknowledging the value of reviewing data for understanding well-being states (Lupton et al., 2017), or when positing that subsequent thoughts and behaviours emerging from self-tracking reproduce neoliberal ideals regarding managing and optimising well-being (Lupton, 2019c). There is scope, therefore, to direct greater attention towards well-being by making explicit connections between well-being and ways individuals track and experience new affects and capacities from interacting with devices, data, and others. Furthermore, there is scope to explore changes in well-being as part of an ongoing process.

Only a few scholars exploring self-tracking are somewhat more direct about well-being as emerging from interactions or being part of an ongoing process. Pink et al., (2017) for example, recognise that everyday well-being derives directly from moments associated with self-tracking such as seeing data visualisations reflective of cycling achievements. Lupton (2019d) also explicitly describes well-being as a distributional and relational phenomenon. Yet, whilst self-tracking technologies, such as step-counting apps are recognisably relevant, the author only briefly alludes to them. Attention is directed towards other significant relational connections such as walking activities.

This section now casts the literary review net further to better gauge if, and how, well-being is considered in other recent self-tracking studies.

Lomborg, Thylstrup and Schwartz (2018) are concerned with flow experiences. Flow experiences are explained here as contingent upon a “relational entanglement between features of the medium (technological design, organization of content) and experiential potential and engagement at the user end (ibid, p.4593)”. Focusing upon 11 self-trackers, some more dedicated to tracking, and others more casual, the authors portray consequences resulting from self-trackers engaging with their devices and data in specific ways. They do so by considering the experiences that individuals have when registering data (e.g., recording activities), when self-tracking technology pushes information automatically, when individuals consult data, and when conversing with others. Whilst consulting data can entail aspects such as

reflecting upon previous data or analysing data to help plan activities and prepare for future events, it refers here to keeping check of what one is doing during an activity. Conversing, meanwhile, refers to connecting with other self-trackers. It is evident that the authors do not explicitly refer to well-being.

In this paper, the focus is instead on challenging the idea that self-tracking technologies simply hook users. Based on their findings (which include insights such as consulting data becoming more important during events, and not many individuals choosing to converse with others), the authors suggest that individuals continue to track simply because they can and because they enjoy registering data. They further suggest optimisation may not necessarily be the main goal, as is often assumed. Noteworthy is that their insights differ from those within other studies. Bergroth (2018) finds self-trackers in Finland are interested in checking data more and reflect upon data despite repetitive data accumulation provoking a sense of uncertainty alongside enhanced self-understanding. The authors further posit that self-tracking technologies “easily lure the individual into a logic of constant monitoring” to attain a sense of control, even though this “flows away” (ibid, p.15).

This rather limited coverage of well-being within self-tracking literature is significant. Within section 3.3.3.3, it became evident that new capacities emerging (e.g., feelings of pleasure and control) when interacting with particular human and non-human bodies can be associated with well-being as emergent. Consequently, current consequences of self-tracking reviewed here do enhance an understanding of how or why self-tracking can be significant and meaningful. Generally, though, coverage falls short of considering more explicitly the ways affective forces and capacities can implicate well-being.

4.3.4.2 (Limited) Attention towards prior relevant experiences

There is also limited attention towards relevant experiences preceding self-tracking. Whilst studies address to some extent particular reasons for tracking, relevant experiences prior to an interest in tracking, and ways particular interests and goals form, are not given considerable coverage. Only some of the existing self-tracking literature recognises significant events which inform decisions to track. Lupton (2019b, 2019c) acknowledge that becoming a parent can trigger a desire to make ideal changes, for example. A health condition causing pain can also be influential.

Williams (2015) refers to photos which heightened their attention to weight gain and “how bad things had gotten” (ibid, 2015, p.122).

Within existing literature, the emphasis is mostly directed towards wider neoliberal ideals associated with powerful discourses. This limited coverage is noteworthy, since only recently has the need for understanding better individuals’ reasons for turning to self-tracking and engaging in particular practices become further recognised (see Lupton and Smith, 2018). Moreover, it means that capacities emerging from self-tracking, why they are meaningful, and how they are more limited or transformative, bearing in mind circumstances leading to self-tracking, are not yet understood in detail. This is significant. As the prior chapter acknowledges, considering prior experiences when exploring affects and capacities produced from assemblages can be insightful (McLeod, 2017).

4.3.4.3 (Limited) coverage of self-tracking and well-being for UK-based trackers

Directing attention to coverage regarding relationships between self-tracking and well-being makes further evident that there is limited coverage regarding how self-tracking contributes towards experiences of well-being for different individuals in the UK. Scholars including Duus, Cooray and Page (2018), do nevertheless, focus on self-trackers in the UK. Their study is valuable for furthering our understanding of the ways self-tracking can be empowering for women. This includes women already familiar with tracking and interested in doing more exercise, documenting an already active lifestyle, or seeking guidance to reach goals such as weight loss. The authors use, in conjunction with Barad (2003) ideas regarding agency, the concept of the Extended Mind. This latter perspective suggests humans rely on other entities to do tasks and expand competencies and skills (Clark and Chalmers, 1998). Duus, Cooray and Page (2018) demonstrate how agency swings between human and non-human entities (in what they refer to as the ‘agency pendulum’). They further demonstrate that this leads to various capacities emerging.

Some interview findings reinforce those in prior studies (e.g. Lupton et al, 2017, 2018b, 2019b, 2019c). It is found, for example, that women may be encouraged to do more when engaging in competitions. They also can feel confident about food decisions made and can feel happy when reaching goals as notified by vibrations or colours indicative of success. Attention is also drawn, however, to extended

capacities. Capacities including feeling reassured when seeing data and better understanding issues such as why one is tired (from doing a particular level of activity) and subsequently feeling better and less stressed about taking time to rest more. Attention is also drawn towards new skills including creating and managing new sleep routines or estimating steps taken during an activity after becoming familiar with reviewing data.

Duus, Cooray and Page (2018) also show how there can be a “darker side” associated with becoming a human-tech hybrid, whereby the human, biological, and cognitive capabilities are distributed and become interweaved with the abilities of other technological entities (ibid, p.2). The authors acknowledge that self-tracking can lead to relying heavily on self-tracking technology at the expense of listening to bodily sensations. Checking data can become obsessive. Tracking can further create a sense of compulsion to reach targets even when it is inconvenient or not what is really wanted. This is in addition to facilitating feelings of insufficiency when not reaching goals. Going further, Duus, Cooray and Page (2018) direct attention towards negotiating strategies. These are employed by individuals when becoming too invested in the device and data interacted with. Negotiating strategies include limiting what data is recorded and limiting when notifications are received. Furthermore, adjusting goals so that they can be met or surpassed (which resonates with a point by Lomborg, Thylstrup and Schwartz (2018) regarding creating positive feedback loops). Another strategy is being tactical about when syncing data. This is especially when challenging others or when wanting to rely on ones’ judgement.

Whilst an insightful study, earlier observations resonate again. For example, the authors are explicit about their interest in how technologies help individuals manage health and well-being and they acknowledge how distributed perceptions and actions relate to well-being. Less touched upon in-depth, however, is why this is meaningful. Also, less focused upon is how capacities emerging can be evaluated in light of other experiences which precede self-tracking and influence well-being. This is in addition to how capacities fare in light of previous self-tracking experiences. Only some data which the authors present (e.g. data regarding the difference in dynamic between a first tracker and new tracker) highlights this.

4.3.4.4 Unfolding interactions with self-tracking technologies...and well-being?

Within the aforementioned studies reviewed, there have been notable instances whereby the capacity for self-tracking technologies to produce changes has become significantly restricted. There have been instances in some studies (e.g., Lupton 2018a) whereby technologies lose their “thing-power”. An examination of further literature helps to indicate that despite the potential for tracking to become central in everyday lives, self-tracking technologies may also become actively backgrounded or stopped interacting with altogether. Based on two studies - one with Danish QS trackers and the other with German mainstream users – Kristensen and Prigge (2018) identify different types of engagement modes comprising self-tracking, and propose a map explaining the “full circle” of self-tracking use. Figure 4.2 depicts this.

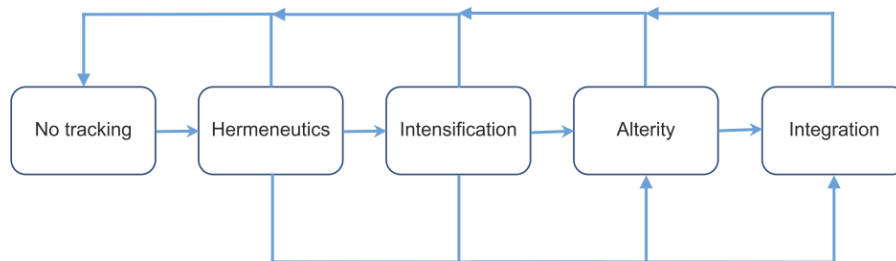


Figure 4.2 The life cycle of self-tracking practice presented by Kristensen and Prigge (2018)

Notably, some of the engagement stages they describe coincide somewhat with earlier literature. The stage ‘hermeneutics of the self’, for example, resembles what Bode and Kristensen (2015) entitle ‘Enactment’. Stages such as ‘alterity’ (Kristensen and Prigge, 2018), meanwhile, resemble ideas associated with ‘entanglement’ (Bode and Kristensen, 2015). Emphasis is also given, however, to the significance of not only integration but backgrounding. Backgrounding can entail neglecting the technology or stopping interacting with it altogether. This might occur when a mainstream user seeks simplicity to begin with, or finds tracking becoming too intrusive and demanding (Kristensen and Prigge, 2018). Despite this, however, there is limited attention generally within self-tracking literature towards ways well-being is experienced when tracking less intensively or when stopping tracking altogether. Exceptions to this include Barrie, Waitt and Brennan-Horley’s (2019) study drawing upon Deleuze and Guattari (1987) to explore the role of self-tracking technologies

within cycling assemblages. Apparent within this study is how participants deviating away from practices encouraged through the *Strava* platform, can subsequently become open to new cycling opportunities which nurture a sense of well-being. Participants might explore alternative routes, interact with the outdoor environment more contra to focusing on the competitive element that *Strava* dictates, and simply enjoy a ride, for example.

Another observation is the current limited in-depth understanding of how meaningful interactions with devices and data are for shaping well-being in everyday life over time. Many studies reviewed in this section rely on methods such as interviews. These methods help produce valuable insights generally. Their capacity to generate insights regarding self-tracking experiences close to the time they occur in everyday life is, nevertheless, limited. Only some existing empirical studies incorporate an additional temporal aspect. This includes studies exploring self-tracking on the move in contexts such as cycling with the aid of GoPro cameras (Pink et al. 2017). Additionally, studies (e.g., Kristensen and Ruckenstein, 2018) employing interviews at different temporal periods to produce insights which complement others regarding ways tracking is well incorporated into everyday life or interacted with less over time (Kristensen and Prigge, 2018). Consequently, there remains scope to explore self-tracking experiences as they unfold over time and as other significant relations assemble in everyday life.

4.3.5 A timely opportunity to explore self-tracking further

To explore self-tracking is timely. Individuals are increasingly turning to self-tracking. Furthermore, it is clear from the literature review that publications associated with self-tracking are rocketing in recent years. Existing literature is insightful. It helps make connections with themes and relevant issues highlighted in previous chapters including the significance of neoliberal ideals, the agency of consumers and (potentially too much) agency of technological objects, being but some examples. Gaps in knowledge remain, nevertheless. There is a novel opportunity to be more explicit about how participating within self-tracking assemblages can contribute to well-being, especially in light of considerations of why one tracks and bearing in mind previous situations assembling. This is also significant and timely given scholars such as Ashman, Wolny and Solomon (2018) suggest there is scope to explore further how self-tracking practices can be beneficial.

4.4 CHAPTER SUMMARY

This chapter introduces self-tracking before acknowledging themes evident from a review of self-tracking literature. The chapter demonstrates that considerable attention is given towards surveillance issues. Attention (either conceptual or empirical) is also given to the potential for self-tracking to lead to self-governance and the manifestation of neoliberal ideals. The chapter further conveys that a recent growing body of literature considers self-tracking from a network or assemblage perspective, and in turn, signals how self-tracking can influence feelings and behaviours. Considering this latter literature in particular, it is articulated that self-tracking is very timely to study. There remains, however, rich potential to be explicit about ways well-being emerges from involvement with a self-tracking assemblage, as there are significant gaps in knowledge. These gaps include limited explicit attention to the ways affects and capacities emerging from self-tracking can be constitutive of well-being; limited considerations of changes generated in light of why individuals start tracking; and limited coverage of ways self-trackers in the UK are affected.

In drawing this literature review to a close, this section finishes by summarising key opportunities for contributing new knowledge and by reinforcing the areas which this research addresses. To accomplish this, this section makes connections between significant points articulated throughout each literature review chapter.

Chapter two identified trends within the literature associated with CCT. Recognition was given to existing literature which transcends a predominant focus on consumer agency and which directs attention to relations between the human and non-human. The review signalled that there is increasing attention to assemblage perspectives and ideas associated with Deleuze and Guattari (1987) are gaining momentum. The review further made evident that in recent times, increasing attention is given to human-digital technology assemblages especially, and it is opportune to further explore human digital-technology assemblages, given questions arising regarding what technology can do.

From reviewing a vast body of literature, chapter three made evident that well-being is often generally portrayed as predominantly individualistic. The review here indicated that only some literature articulates or explores well-being in alternate ways. This includes literature drawing upon ideas associated with the work including that of

Deleuze and Guattari (1987) who explore ways well-being is mediated by interactions between human and non-human with the capacity to affect and be affected. The review made it further clear that only rarely is attention drawn to ways well-being is enhanced in more, or less, liberating ways. Consequently, there is reasonably novel scope to take inspiration from such literature and explore well-being as emergent and relational. The chapter made points suggesting this can be valuable as there remains only limited attention to well-being in consumer-cultural oriented research at present. Thinking about well-being from a fresh perspective can also generate new insights so far underexplored in the growing body of CCT literature directing attention to relational thinking. Indeed, as is apparent within chapter two, there remains fruitful scope to explore further ways in which affects and capacities emerging from interactions comprising assemblages are limiting or more transformative.

Consequently, **this research can build upon a growing body of CCT literature directing attention to relations between the human and non-human.** In particular, **it can build upon literature drawing upon assemblages and focusing on human-digital technology assemblages.** It can do so by thinking about well-being differently. That is, as transformed by human and non-human interactions and as not individualistic. It can do so by exploring well-being in light of a consumption phenomenon that is popular and timely – that of self-tracking. Simultaneously, the research can **build upon existing self-tracking literature and well-being literature.**

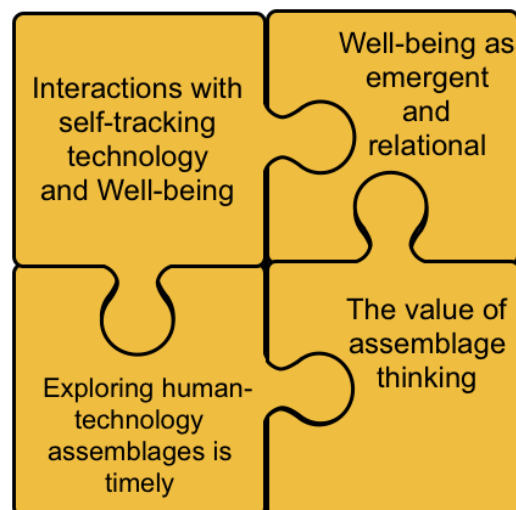


Figure 4.3 Putting the pieces together: Key issues this study addresses

This literature review now draws to a close. The next chapter proceeds by discussing methods employed within this study to address the research questions.

CHAPTER FIVE: RESEARCH ASSEMBLAGE

5.1 INTRODUCTION

This chapter presents the methodology and methods of this research project. In doing so, it illustrates what can be considered a 'research assemblage', comprising a range of human and non-human components which enable new knowledge to be produced (Fox and Alldred, 2015). The chapter reiterates the research aim, objectives, and questions of the study. A discussion of the philosophical assumptions underpinning the study follows. The chapter then proceeds by addressing and justifying the research methods which the study employs. This is before explaining the process of generating data with participants and analysing data. Figure 5.1 summarises the structure of the chapter.

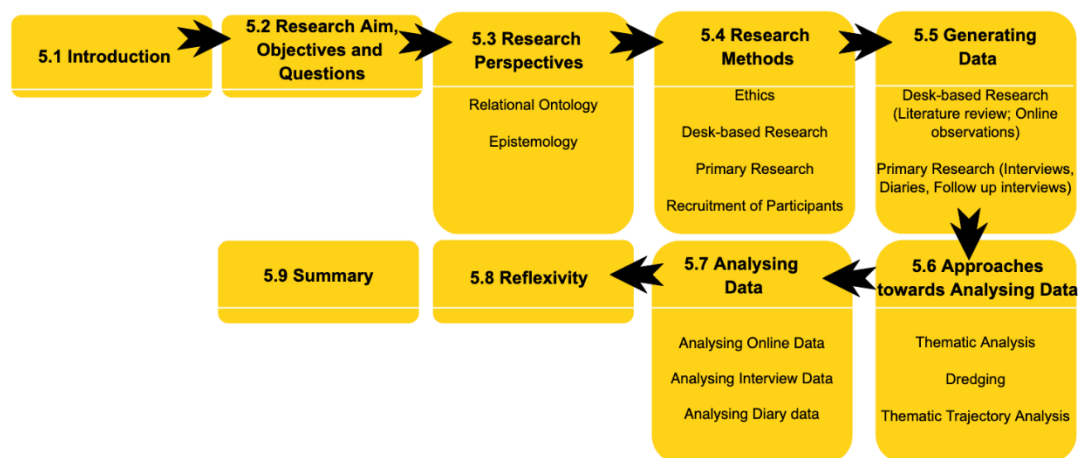


Figure 5.1 Chapter Five Structure

5.2 AIM, RESEARCH OBJECTIVES, AND QUESTIONS

As the introductory chapter highlights, this thesis focuses on contributing useful insights relevant to a growing area of consumer-cultural oriented research. It does so by directing attention towards examining interactions between consumers and other human and non-human things. In particular, it concentrates upon ways individuals emerge from self-tracking assemblages to address health or well-being related interests and explores how interacting with health/fitness self-tracking technologies contributes towards experiences of well-being which emerge. To achieve this, the study addresses several research objectives and answers a number of research questions. Table 5.1 reiterates these.

Research Objective	Research Question(s)
<p>1) To critically review the potential of exploring well-being in the context of self-tracking for contributing a CCT study with novel insights.</p>	<p>1) How is well-being and self-tracking understood in existing literature and what opportunities for exploring well-being as less individualistic can be built upon?</p> <p>2) How can exploring ways well-being is experienced for self-trackers effectively contribute to relevant research associated with CCT which focuses beyond consumer agency?</p>
<p>2) To develop an appropriate research method assemblage for investigating how participating in a self-tracking assemblage influences well-being.</p> <p>3) To deliver rich qualitative insights which enhance our understanding of the different ways self-tracking can contribute towards experiences of well-being emerging</p>	<p>3) What human and non-human components influence individuals to start interacting with health/fitness wearable devices and integrated apps, or standalone apps?</p> <p>4) How do individual's interact with self-tracking technologies and (how) do interactions change across circumstances?</p> <p>5) How do individual's interactions with self-tracking technology contribute to ways that well-being can emerge?</p> <p>6) How do new well-being possibilities (opened up/concealed/overshadowed) from self-tracking compare with what individuals experience when not self-tracking with particular health/fitness wearable devices and integrated apps, or standalone apps?</p>
<p>4) To examine the theoretical implications of such insights for contributing to academic coverage of well-being and academic coverage regarding complex relationships between human and non-human. Furthermore, to examine practical implications.</p>	<p>7) How do the qualitative insights produce develop our understanding further of well-being as emergent and relational and what are the implications for practitioners interested in promoting well-being?</p>

Table 5.1 Research Objective(s) and Research Question(s)

5.3 RESEARCH PERSPECTIVES

Important to address in any research study is the underpinning philosophical assumptions shaping decisions regarding methods to employ (Guba and Lincoln, 1994). This means acknowledging the 'ontology' and 'epistemology'. Ontology refers to the nature of reality – what there is and what there could be (Law, 2004). Epistemology, which links with ontology, refers to what the nature of the relationship is between a researcher and what can be known (Guba and Lincoln, 1994).

Apparent from the literature review is the value of drawing upon ideas associated with assemblage thinking. This is to not only think differently about well-being in a rich context such as self-tracking, but also add to a growing body of literature relevant to CCT which focuses not only on the agency of humans but also non-humans such as digital technological objects. Inspired by the literature which this thesis reviews, and in particular ideas associated with Deleuze and Guattari (1987), this study adopts a relational ontology to explore ways self-tracking influences well-being. This section now turns to reiterating and making explicit key assumptions associated with relational thinking.

One significant assumption is the contestation of a dualistic mindset, and the breaking down of boundaries. This includes divides such as between human and technology (Feely, 2019), as is evident from various literature reviewed within chapters 2 and 4 especially. This also includes abolishing divides between matter and discourse (Feely, 2019) and structure and agency (DeLanda, 2006). It means viewing human and non-human components including social and material (e.g. ideas, objects) as relational. That is, connecting in heterogeneous networks, otherwise known as 'assemblages' (Deleuze and Guattari, 1987).

Another key assumption, meanwhile, is that nothing is pre-determined. There is no fixed 'being' with essential qualities (Canniford and Bajde, 2015). Components comprising an assemblage gain their capacity to affect and be affected only through relations with other components. They are therefore in a constant process of becoming. Whether this is becoming-depressed (McLeod, 2017), becoming-fat or becoming-slimmer (Fox et al., 2018), to reiterate but a few examples evident within the literature review. This means greater attention is given to not what something 'is' but what it can 'do'. Ways of affecting and being affected, of which, will be multiple,

depending on relations established. Within this thesis, for example, attention is given towards ways self-tracking technologies become significant in light of prior relations forming with individuals. Moreover, attention is given to how self-tracking enables individuals to do (or not do) new things, and experience new possibilities. Indeed, research questions (e.g. RQ3, RQ5, RQ6) reflect this.

Such an ontology has several implications for epistemology. To elaborate, the researcher is not merely observing a phenomenon and seeking a truth that is independently 'out there' (Guba and Lincoln, 1994; Crotty, 1998, Law, 2004), as is the case with more objectivist approaches like positivism (Guba and Lincoln, 1994; Crotty, 1998). Rather, the researcher is entangled in the production of knowledge as it is constituted by research encounters comprising human and non-human components. Data is, therefore, not something pre-existing which a researcher collects. Rather, data is generated during an encounter at a particular time. Consequently, a researcher should recognise that they make one of many possible "cuts" (Lupton, 2018b; Mazzei, 2013) when making choices such as which participants to recruit, methods to employ, and approaches for analysing data. In other words, a researcher presents one of many possible realities. Furthermore, contrary to producing generalisable insights, the focus is instead on what can be done to produce novel insights and activate further thinking.

Perspectives with a flatter ontological outlook (Hill, Canniford and Mol, 2014, Arnould and Thompson, 2018) which do not undermine the status of any human or non-human components (McLeod, 2017) have implications for methodological practices. For example, researchers can be more sensitive during research encounters towards giving attention to not just individuals but also other objects which can act as a communicative device shaping what is said by individual participants. This can include focusing on photos, for instance. McLeod (2017) finds photos can help participants articulate affective states in ways that otherwise may remain unspoken. When analysing data generated from human accounts, meanwhile, a greater sensitivity should arguably be given towards how significant relations are affective (Fox and Aildred, 2015).

Throughout subsequent sections hereafter, is attention to the implications of such assumptions, for the approaches this study takes towards generating and analysing data.

5.4 RESEARCH METHODS

This research includes desk-based research. Primary research is also conducted by employing qualitative methods (see Figure 5.2 for an overview). Qualitative methods are common in studies associated with CCT (Arnould and Thompson, 2005). Moreover, they are common within existing empirical studies relevant to self-tracking, as sections comprising the literature review make evident. Responding to calls regarding the importance of explaining why one uses qualitative research methods (Graebner, Martin and Roundy, 2012), it is acknowledged here that qualitative methods can help to advance an understanding of what leads to self-tracking. Furthermore, qualitative methods can enable a deeper understanding of what comprises a self-tracking assemblage and how affective interactions influence well-being by transforming what self-trackers can do. This is cognisant with the research purpose.

Upon highlighting ethical considerations, this section gives a more detailed overview of different research methods employed. The section further outlines the appropriateness of the research methods for fulfilling research objectives and addressing research questions. This is a significant precedent for further detailing the ways the methods were employed in section 5.5.

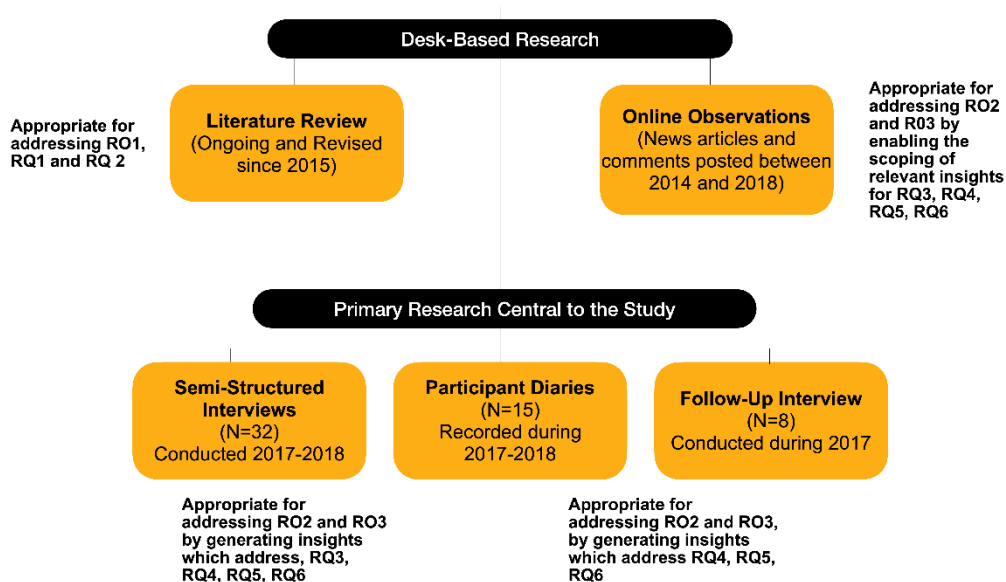


Figure 5.2 Overview of Research Methods

5.4.1 Ethics

Guiding principles for ensuring good practice when doing research are set out by the University of Liverpool Ethics Committee and other institutions including the Economic and Social Research Council (ESRC). According to these institutions, it is fundamental that researchers ensure the minimisation of any potential physical or psychological harm or risk to persons involved in a study. Attention and respect must also be given to participant anonymity and to the confidentiality of data. Furthermore, participation in a study must, where possible, be voluntary, and participants should give explicit consent to participate. Ways of ensuring informed consent include researchers' being transparent about the purpose of research and fully disclosing any risks to participants. Moreover, ensuring participants understand this and ensuring they understand their right to withdraw their participation from a study. Ensuring voluntary and informed consent also entails giving participants time to contemplate their decision to participate (ESRC, 2015; University of Liverpool Ethics Committee, 2018).

Ethical approval for this study was sought and granted by the University of Liverpool Management School Committee of Ethics upon considering the design of the study and before conducting primary research and generating data with participants. Ways the aforementioned ethical considerations were observed and applied at different parts of the research process will become further evident throughout subsequent sections.

5.4.2 Desk-based Research

This section draws attention to desk-based research methods which the study employs.

5.4.2.1 Literature review

As is evident from previous chapters, a desk-based literature review informs this study. Conducting a comprehensive literature review is important to any research project. A literature review is one component that enhances a researchers' understanding of a topic and can help determine what is meaningful to explore further (Gummesson, 2015). A literature review is essential in this study for addressing Research Objective 1. In particular, for helping enhance an understanding of existing

discussions regarding well-being. Furthermore, for helping further understand what is valuable to explore further to contribute significant insights.

5.4.2.2 Online observations

Many interactions now take place online (Lupton, 2016a), and as some scholars (e.g., Lupton, 2013b; Rich and Miah, 2014) acknowledge, news media is one source whereby self-tracking technologies receive public attention. Online news sources can produce heterogeneous data, as is recognised by Bettany and Kerrane (2017), who notably draw upon such sources for their consumer-cultural oriented research which explores perspectives regarding technology use. Given news sources attract attention from self-trackers and a range of data can be produced, performing a scoping exercise and drawing upon online news articles and user-posted comments is relevant to this study.

Drawing upon earlier published sources serves as an appropriate foundation for developing an understanding of what encourages individuals to turn to self-tracking and their experiences with self-tracking devices and/or apps. This foundation helps inform relevant questions to probe during primary interviews to ensure issues of significance which are identified are addressed. Consulting data from both earlier and later published articles and comments is also useful for enabling comparisons with the primary data and for subsequently ensuring that particular themes generated during analysis of primary data are reflected upon and interrogated in depth. Scoping news articles and user comments to identify relevant data is relevant to Research Objective 2, and offers a contribution in particular for addressing Research Objective 3. Research Objective 3 focuses on enhancing an understanding of the different ways that self-tracking contributes to experiences of well-being.

5.4.3 Primary Research

This section directs attention to highlighting and justifying primary research methods which are central to the research.

5.4.3.1 Interviews (semi-structured)

Interviews are a conventional method which qualitative research frequently employs (Fischer, Castilhos and Fonseca, 2014). The use of interviews is apparent across a range of CCT research with different underpinning assumptions. CCT researchers may employ them to give 'voice' to people. This coincides with the epistemological assumptions held by some researchers that consumers' subjective expressions help one to better understand lived experiences (Arsel, 2017). Some authors (e.g., Moisander, Valtonen and Hirsto (2009), meanwhile, argue interviews are a familiar practice that produce interactive dialogue and data which enables researchers to gain a further understanding of wider cultural forces (e.g., discourses) which shape consumers' meaning and experiences. Understanding what influences consumers' way of being and acting in the world can be useful for addressing ways to make beneficial differences to consumers' lives (ibid.). Some authors focusing beyond the agency of consumers and drawing upon assemblage thinking in consumer-cultural oriented research also employ interviews as do authors conducting self-tracking research (e.g., Bode and Kristensen, 2015).

Scholars endorsing materialist perspectives which comprise relational assumptions in other disciplines (e.g. Fox and Alldred, 2015) suggest interviews can be valuable as they enable individuals to portray accounts and engage in meaning-making. This can subsequently facilitate the exploration of significant relations and emerging affects and capacities. Interviews are, therefore, included within the research design given their appropriateness for gaining insight into individuals' accounts of self-tracking which can then be drawn upon to better understand what leads to self-tracking and changes generated from self-tracking.

Semi-structured interviews, in particular, are considered appropriate for this exploratory study (Saunders, Lewis and Thornhill, 2009). Semi-structured interviews typically comprise an interview guide, but at the same time, there can be opportunities to ask other questions (Easterby-Smith et al, 2008). Preparing a set of questions allows researchers to ensure lines of enquiry relevant to the research questions are engaged with if not evolving more fluidly during a conversation (Saunders, Lewis and Thornhill, 2009). The scope for flexibility, meanwhile, enables particular issues (including perhaps those previously unanticipated) to be explored in depth. Differences between individuals' and their accounts can also be taken into account

(Bryman and Bell, 2011). Section 5.5.2.1 discusses the interviewing process in greater detail.

5.4.3.2 Participant diaries (semi-structured)

Qualitative data sets should be rich and varied (Belk, Fischer and Kozinets, 2013). Employing methods such as those including the use of technologies like GoPro cameras can be potentially valuable. This is because they can facilitate access to direct observations of individuals' interactions with technology in particular spaces (Bettany and Kerrane, 2017). This is evident in further studies (e.g. Pink et al., 2017) which chapter 4 of the literature review acknowledges. Such technologies are costly, however. Further issues include the feasibility of participants wearing a GoPro camera during everyday activities. This is because wearable devices, apps, and data can be interacted with sporadically or interacted with more often depending on what is happening around individuals (Pink and Fors, 2017). They also may be interacted with at multiple sites such as at work or when at home or when on the move (Cochoy et al., 2017). Participant diaries, nonetheless, are suitable for enriching a data set.

Participant diaries can help to generate data in a relatively less intrusive manner (Zimmerman and Wieder, 1977; Kerrigan et al., 2014). They can also help to generate rich insights, as a steadily increasing uptake of diaries used within marketing studies demonstrates (see Appendix C for details of such studies). As Patterson (2005) earlier suggests, diaries have considerable potential for exploring consumer phenomena. Diaries can minimise retrospective bias (Symon, 2004). They are also useful for capturing details of everyday life as they spontaneously occur. This, in turn, permits new complex insights which other methods (e.g., interviews) do not afford (Bolger, Davis and Rafaeli, 2003; Radcliffe, 2013, 2016). This is particularly valuable. As some researchers suggest (e.g., Hill, Canniford and Mol, 2014), researchers drawing upon ideas relevant to assemblages can generate useful accounts by being sensitive to aspects such as activities occurring in daily life which otherwise may not be captured. Other scholars, meanwhile, recognise that diaries can enable a greater sensitivity to affects and capacities emerging from relations (Fox and Alldred, 2015). Another advantage of diaries is that they enable comparisons of different patterns relevant to an individual across time as well as between individuals across time (Bolger, Davis, and Rafaeli, 2003). Participant diaries, which notably are lacking

within self-tracking studies, are appropriate to include within this research, therefore, to help to address research questions 4, 5, and 6.

This research intended to employ diaries following an interval-based design in particular. That is, whereby participants can record regular entries at a convenient time during the day. Alternate designs can include an event-contingent design, whereby participants record entries every time a clearly defined, relevant event occurs (Wheeler and Reis, 1991; Bolger, Davis and Rafaeli, 2003). Alternatively, a signal-contingent design, whereby entries are recorded when requested by the researcher at fixed or random time points. An interval design is most appropriate here for facilitating a better understanding of ongoing interactions with self-tracking technologies and relationships with well-being. If relying solely upon another design, such as an event-contingent design, insights relevant to the consequences of not tracking on a particular day would potentially be missed.

A semi-structured diary was identified to be appropriate for this research. Scholars such as Patterson (2005) who focuses primarily on consumers experiences endorse an unstructured format for generating fruitful data. This is contra to a tightly rigid design that can evoke perfunctory, stifled responses. Some scholars including Crozer and Cassell, (2016) encourage the use of prompts to provide some structure, guide participants and reduce the risk of attrition found within some unstructured diary designs. Others (e.g., Radcliffe, 2013, 2016) meanwhile, find a structured design comprising specific questions but also open-ended space for participants to include any other insights they deem relevant or interesting to be valuable (see Radcliffe, 2013, 2016 for example). Employed in this study is the latter format. This is because a semi-structured format provides some guidance to participants who may be unfamiliar with diary keeping. A semi-structured format can also help make the diary-recording process feel less daunting (Radcliffe, 2013, 2018). Like interviews, a semi-structured design can help to ensure diary entries are relevant with some consistency across participants (Radcliffe, 2013). Section 5.5.2.3 discusses the diary process in greater detail.

5.4.3.3 Follow-up interviews

A follow-up interview can be useful for gaining clarification of points which participants make within their diary entries. They can also be useful for enabling participants to

expand on points in greater detail (Zimmerman and Wieder, 1977; Radcliffe, 2013, 2016). On an ethical note, Radcliffe (2013, 2016, 2018) highlights that they are only suitable if no harm will be brought to the participant from the researcher raising emotional or sensitive issues. Included in the design of this study is an optional follow-up for participants who record diary entries. This is appropriate as the research topic is not taboo, incriminating or threatening, as per various descriptions outlined by other researchers (see Dickson-Swift, James and Liamputtong (2008), for example). In instances whereby participants wish to continue partaking through a follow up, a cautious mindset remains. Attention needs to be directed whilst reviewing data and preparing follow-up interview questions to not raising any sensitive points in any potential instances whereby diary entries have sensitive content.

5.4.4 Participant Recruitment

The strategy adopted for recruiting participants reflects the exploratory aims of this research. The thesis does not seek a representative sample. Rather, the aim is to gain a more detailed insight into experiences of well-being for general members of the public who participate in self-tracking. A purposeful sampling strategy (Patton, 2002) was employed to recruit participants, therefore. The initial inclusion criteria was deliberately broad in order to enable an exploration of insights from a range of individuals emerging from different circumstances. The main criterion for inclusion was that participants are aged 18+, based in the UK, and track with a standalone app or wearable device and app associated with health and fitness. Such breadth enables an exploration that departs from several previous studies focusing on specific groups (e.g., members of the Quantified Self community; runners, women only).

5.5 GENERATING DATA

This section now presents details regarding the actual process undertaken for generating data. The section makes evident how methods are employed practically. The section further makes clear how ethical principles are upheld throughout the research process.

5.5.1 Desk-Based Research

This section provides details regarding conducting desk-based research.

5.5.1.1 Literature review

A comprehensive, up to date literature review which can address relevant research objectives requires extensive reading. To find literature to consult and critically review, a number of search engines were used including the University of Liverpool library 'Discover' search engine, and Google Scholar. Further strategies for finding and reviewing texts include searching reference lists of relevant texts, exploring publications which scholars mention in tweets on Twitter, and exploring works recommended in e-mail notifications sent by Mendeley. Mendeley is a company based in London, UK. The company provides reference management software which not only saves references but enables easy storage of literature (Mendeley, 2019). This software has been used to save publication references.

5.5.1.2 Online observations

As section 5.4.2.2 acknowledges, news sources can be appropriate for scoping relevant insights which influence the subsequent approaches to generating and interrogating primary data. Whilst complementary to the study, rather than central, ethical issues remain important to consider and adhere to. In particular, ethics surrounding the confidentiality of data. It is important to be mindful of whether online content is public (Kozinets, 2010) and available for use (Kozinets, Dolbec and Earley, 2014). Coinciding with criteria published elsewhere (e.g., Wiles, 2013), consideration was given to whether news content is exclusive to subscription readers, or is generally available to read for all. Consideration was also given to whether users would likely assume that the content they post is public. Consideration was given to privacy policy statements. For example, *The Guardian* privacy policy 2016/2017-20 states: "When you post information on a discussion board or comment publicly on an article on one of our sites, the information you post, and your username are publicly accessible. This information can be viewed online and be collected by other people".

Some authors (e.g., Henrich and Holmes d2013) raise further concerns. This includes what news articles to include when studying a topic (ibid.). Articles from online British

news brands evaluated to be good quality were searched for. These included articles published in *The Guardian*, *The Telegraph*, and *The Independent* (National Readership Survey, 2017). Search terms included 'Fitbit' 'Garmin' 'Fitness tracker' 'Wearable well-being' and 'MyFitnessPal'. Because self-tracking came to rise in popularity in and around 2014 (Geiger and Gross, 2017), only articles published from 2014 onwards were considered for inclusion. From reading titles and different article texts and reader comments it became apparent that articles span a range of topics from privacy issues, to the accuracy of fitness trackers. Several articles (n=16), focus more so on questioning whether self-tracking technologies are useful to have or should stop being interacted with, however. Similarly, they focus on experiences with self-tracking technologies. Some also invite responses regarding personal experiences with such technology. These articles in particular and the comments they generated were selected as they were judged to be most relevant for addressing Research Objective 3. Table 5.2 summarises the number of articles included from each online news source.

Year	No. of most relevant articles from source		
	<i>The Guardian</i>	<i>The Telegraph</i>	<i>The Independent</i>
2014	1	1	1
2015	4	1	0
2016	0	1	0
2017	3	0	0
2018	4	0	0
2019	0	0	0

Table 5.2 The number of most relevant articles from each online news source

Content from the news articles were read, as were any comments responding to the article. Data was then recorded. Kozinets (2014) suggests that there are various ways of recording data. For this study, the content of news articles was copied and pasted into a Microsoft Word document. Comments to articles which were directly relevant to questions regarding turning to self-tracking or experiences actually self-tracking were selected and copied and pasted into a spreadsheet. Earlier data accessed was consulted when preparing questions for interviews being conducted throughout the study.

5.5.2 Primary research

This section now turns towards the subject of primary research.

5.5.2.1 Participants recruited

As section 5.4.4 highlights, this research adopts a purposeful recruitment strategy to try to attain a heterogenous group of participants. A number of efforts were initially taken to recruit different participants. Efforts including sending e-mails to gyms and health clubs were largely unsuccessful. Efforts most effective for generating interest and recruiting participants included posting an advertisement (see Appendix D) about the study several times on Twitter. Furthermore, posting an advertisement about the study within different sport, dieting, and self-tracking groups on Facebook, once obtaining permission from group moderators. General word of mouth, along with sharing the study advert on a personal Facebook page which then circulated further from friends to friends was also successful, as was the advertisement visible to academic staff on a university digital announcements page which some shared with others including family members.

Though initial recruitment efforts were leading to an array of participants tracking in different ways, it became apparent after doing several interviews that there was scope to gain more diverse insights by extending recruitment efforts further. For instance, it became evident that insights regarding tensions associated with self-tracking may be concealed (see section 7.3.4 of findings). Recruitment efforts were, therefore, extended to more explicitly attract participants who also had at some point stopped self-tracking.

Overall, efforts for recruitment generated the interest of 63 individuals (48 female, 15 male), of which 32 (23 female, 9 male) in total participated in at least one interview after having time to consult the information sheet about the study. The number of participants recruited broadly coincides with the number of participants recruited in other studies employing methods including semi-structured interviews (Saunders and Townsend, 2016). Table 5.3 gives details of participants and how they were recruited. Participants' names are replaced with a pseudonym to protect confidentiality.

Pseudonym	Age	Gender	Occupation	How participant was recruited
Joanna	18-24	Female	Masters Student	Responded to advert on Twitter
Lincoln	18-24	Male	IT support	Personal contact
Jamie	18-24	Male	College admin	Facebook group
Jessica	25-34	Female	PhD Researcher	Personal contact
Charlotte	25-34	Female	Banking	Word of mouth from personal contact
Russell	25-34	Male	PhD Researcher	Personal contact
Naomi	25-34	Female	PhD Researcher	Responded to advert on Twitter
Natasha	25-34	Female	Teacher (on maternity leave)	Facebook group
Hugo	25-34	Male	Banking senior manager	Word of mouth from personal contact
Lucy	25-34	Female	Not disclosed – Admin related	Facebook group
Skyler	25-34	Female	Lecturer	Responded to advert on Twitter
Danny	25-34	Male	Self-employed jewellery maker	Responded to advert on Twitter
Ethan	25-34	Male	PhD researcher	Responded to advert on Twitter
Danielle	35-44	Female	Pre-school manager (part-time)	Facebook friend shared study advert
Penny	35-44	Female	Company Director	Facebook group
Rose	35-44	Female	Manager of a health and wellbeing service	Study advert shared with them by person seeing advert on University announcements page

Table 5.3 Participants recruited

Pseudonym	Age	Gender	Occupation	How participant was recruited
Grace	35-44	Female	Support Worker	Facebook group
Oliver	35-44	Male	Football Consultant	Responded to advert on Twitter
Tony	35-44	Male	Lecturer	Word of mouth from personal contact
Andrea	45-54	Female	Lecturer	Responded to advertisement on University page
Carole	45-54	Female	Self-employed Mobile Hairdresser	Facebook friend shared study advert
Rita	45-54	Female	University Admin	Facebook group
Shauna	45-54	Female	Retired	Facebook group
Tina	45-54	Female	Self-employed Retailer	Facebook group
Lisa	45-54	Female	NHS ward sister	Facebook group
Emilia	45-54	Female	Lecturer	Responded to advert on Twitter
Megan	45-54	Female	Civil Servant	Facebook friend shared study advert
Jeremy	45-54	Male	Theatre lighting	Facebook group
Carla	55-64	Female	Mature Arts Student	Word of Mouth from personal contact
Fiona	55-54	Female	Hospitality Business Owner	Facebook group
Sally	55-64	Female	Hairdressing Salon Owner	Word of mouth from personal contact
Denise	55-64	Female	Dental nurse	Facebook friend shared study advert

Table 5.3 Participants recruited (Continued)

5.5.2.2 Semi-structured interviews

Informed consent was gained from participants by a signed consent form (see Appendix E). This was physically handed or e-mailed by the researcher before interviews took place. Interviews were conducted with all participants (n=32) and lasted between 35 minutes and 2hrs 50 minutes with an accumulative interview time of 39 hours.

Research location is not always documented by researchers (Herzog, 2012), yet it is an important relation entangled within the research process (Fox and Alldred, 2018). To address the issue of ensuring locations are convenient and pragmatic for participants (Elwood and Martin, 2000), an option was given for participants to choose with the researcher a preferred location for face to face interviews. To comply with safety regulations, spaces such as local cafes were proposed as a research location, but participants could ultimately choose a (safe) place preferable to them. Spaces interviews took place spanned local cafés and coffee shops to university campus rooms, or participants' home or workplace. Because participants resided in different geographical places, some travel was undertaken to different places within the UK to meet participants. In cases whereby a face to face interview was not possible or preferable, an option was given to participants to do a telephone interview or online interview. The flexibility of telephone interviews makes them a good alternative. They are easier to schedule in and more accessible (Oltmann, 2016). They also may be perceived as providing an enhanced sense of anonymity (ibid.). Audio-visual platforms (e.g., Skype) also offer convenience for participants and help researchers ensure inclusiveness by reaching a wider range of participants otherwise not accessed due to geographical constraints (Iacono, Symonds and Brown, 2016). The number of interviews and by which medium is summarised below.

Face to Face interviews (n=18) Telephone Interviews (n=11) Audio-visual interview (n=3)

Table 5.4 provides further details regarding face to face interviews and their locations.

Face to Face interviews (n=18)	
Geographical location travelled to	Number of interviews
Liverpool, England	10
Reading, England	1
Birmingham, England	1
Leamington Spa, England	1
Llandudno, Wales	1
Leeds, England	2
Carnforth, England	1
Warwick, England	1

Table 5.4 Interview locations travelled to

At the beginning of each interview, participants were thanked for their time and the purpose and nature of the interview was reinforced. Key ethical principles regarding voluntary participation; confidentiality, anonymity were reiterated. Specifically, participants were asked again if they were happy for the interview to be recorded. They were reminded that there were no right or wrong answers. It was explained that anonymity would be preserved as all data would be kept confidential and participants would be given a pseudonym. Participants were also reminded that they had the right to withdraw from the study at any time. An Olympus VN-732pc voice recorder was used to record all interviews, with the consent of participants.

As section 5.4.3.1 highlights, semi-structured interviews entail the use of an interview guide. The initial question guide devised for this study included questions steered by knowledge of gaps pertaining to self-tracking and by research questions oriented around well-being. As recommended by others (Fischer, Castilhos and Fonseca, 2014), questions intended to encourage interviewees to acknowledge particular experiences for greater richness were included. Appendix F depicts the initial interview schedule.

The first few interviews effectively served as pilot interviews. This allowed for an opportunity to reflect on the clarity of questions (Bryman and Bell, 2011), reflect on what could be probed more, and to refine and add to the initial interview guide. For

example, upon reflection, background questions (Fischer, Castilhos and Fonseca, 2014) regarding individuals' lifestyle, aspirations and what led to such aspirations were added to the guide to enhance the structure of interviews by encouraging an opportunity early on for participants to make comments which could strengthen an understanding of what is significant to participants' turn towards self-tracking technologies. Also added to the guide was a question prompt regarding why particular data is important bearing in mind existing or previous lifestyle activities. A further question regarding whether participants had anything else they would like to add or if there was anything that did not come up that they thought might have to ask at the end of interviews was also included. This was to help draw additional insights otherwise potentially missed. The flexibility of semi-structured interviews meant there were further opportunities for the interview schedule be adapted as interviews proceeded and as new insights were generated (Saunders, Lewis and Thornhill, 2009). For example, instances whereby self-tracking technologies may be interacted with less or stopped interacting with altogether became apparent and this was probed in further interviews.

The interview guide was invaluable throughout the process for helping interviews remain focused, though notable is that most interviews generally flowed smoothly and points of interest and of relevance evolved fluidly through interactive conversation. This is relative to rigidly following the interview guide. Questions asked, and in what order varied, then, in accordance with the flow (Saunders, Lewis and Thornhill, 2009) of informal conversation (Belk, Fischer and Kozinets, 2013) and comments already made. Coinciding with suggestions offered by Belk, Fischer and Kozinets (2013), verbal prompts (e.g., "can you elaborate on that?") were used also at times throughout interviews to encourage participants to build on points in greater depth. Attention was further given towards own body language including facial expressions, eye contact maintained with a participant, and use of gestures to demonstrate continued interest in what participants say and for helping sustain a flowing conversation.

In accordance with the ontological assumptions underpinning this study (see section 5.3) and sensitive to other components comprising a research assemblage (e.g., location, objects), it is noteworthy to mention some observations made throughout the interviewing process. The location of interviews, for instance, influenced what was discussed at times. For example, in a participants' own home or workplace, some links to how self-tracking impacted activities in these particular spaces were made. In

another interview conducted in a local café, meanwhile, a participant became eager to direct me to nearby surroundings whereby they had become immersed as a consequence of self-tracking. Section 7.2 of the findings notably highlights insights associated with this.

Objects also performed a significant role at times. During face to face interviews, participants were often wearing their devices, and/or had relevant apps readily accessible on their phone or tablet. As participants scrolled through their data, the data that had the capacity to draw an individuals' attention, along with the participants' embodied reactions to such data, could be observed. Participants also revealed new specific insights that otherwise may have remained concealed. New insights emerged when participants drew upon memories associated with data they consulted and articulated how it made them feel when reviewing it in the past compared to when engaging with it in the present, for instance. On one occasion, a participant also showed the particular data they were discussing on webcam during a Skype interview. Generally, though, opportunities for this were limited for interviews with no direct interpersonal contact.

Further notable is that on rare occasions other material resources became complementary. Content from a participants' blog, for instance, was sometimes referred to during an interview. Another participant, meanwhile, suggested academic articles to follow up on. This expanded the capacity to further understand the implications of self-tracking.

5.5.2.3 Participant diaries

At the end of each interview, participants were asked whether they would like to continue participating in the study by keeping a diary. Participants were verbally briefed about the diaries and given a paper and/or electronic copy of the brief in order to ensure they clearly understood what would be expected if agreeing to keep a diary (Radcliffe, 2016). Specifically, participants were briefed about why diary-keeping was valuable and were briefed about how to record diary entries and send them. Appendix G offers a summary of significant details from the diary brief.

Notable is that alongside design considerations including the structure and category of diary (as section 5.4.3.2 highlights), choices had to be made regarding diary

format(s) before employing them in practice. Formats can range from the traditional such as pen and paper (Bolger, Davis and Rafaeli, 2003) to ones in keeping with wider technological advancements like that of a smartphone app with text, audio, and image capabilities (Garcia, Welford and Smith, 2016; Lev-On and Lowenstein-Barkai, 2019). This latter format is recognisably underutilised in qualitative research (Radcliffe, 2018). Different diary formats available are fraught with a range of benefits and challenges (see Figure 5.3 for a summary regarding benefits and challenges associated with pen and paper, email, audio, and app diaries). As is apparent from Appendix G, all formats were made available to participants.

Responding to authors including Bolger, Davis and Rafaeli (2003) who urge researchers to make efforts to offer a range of diary formats, formats including pen and paper, e-mail, a simple phone app with opportunities to record by text and/or audio or audio recording enabled through other means such as phone voice memos were offered to participants to choose from. These formats were made available to participants to help mitigate challenges and align with individual preferences. This is also in line with suggestions to offer a variety of options to participants so they can record diaries in a way that is comfortable and convenient for them (Radcliffe, 2018). This is important since diary-keeping can potentially become burdensome if having to commit to a format which is too time-consuming or difficult (Burton and Nesbit, 2015). This, of which, can subsequently hinder participant commitment (Bolger, Davis and Rafaeli, 2003; Jones and Woolley, 2015).

In conjunction with the diary brief, participants were given the opportunity to ask questions about keeping a diary. Likewise, participants were asked what type of smartphone they had, and further information was given to those interested in, and able to use, the Android app in particular. Specifically, participants were advised about how to download and uninstall the app (an electronic copy of this information was also e-mailed to participants downloading the app after the interview). It was further conveyed that entries would be instantaneously sent to the researcher university email address once recordings were completed and submitted. Following other authors (e.g., Garcia, Welford and Smith, 2016), a decision was also made to offer an illustrative tutorial sheet to interested participants. This gave further guidance regarding how to navigate the app (see Appendix H).

The app itself was created specifically for this study by a personally known developer interested in practicing their skills. Though undergoing some minor tweaks after, the

app was ready for launch before interviews commenced in Mid-January 2017. Appendix I offers a timeline regarding the design and development of the app. Justifications for actions taken regarding the app are also provided. The app (see Appendix J for images of the final version) was only available on Android because this was what was realistically possible given issues including time available and coding resources. Though this exclusivity is a limitation, it cannot be overlooked that the potential for exclusion is a significant challenge (Garcia, Welford and Smith, 2016) as creating an app operable across different platforms is difficult and time-consuming. Furthermore, for an app to function across different platforms requires diverse coding skill resources and greater ongoing attention to app maintenance, especially in light of events such as phone updates (Radcliffe and Spencer, 2018; Spencer and Radcliffe, 2018). To offer an app rather than not at all can be advantageous, however, as it can help to generate rich data and yield new insights (as section 8.4 of the discussion further elaborates). In line with ethical principles, no data was stored on the app or on a third party portal in order to protect privacy. Data submitted to the researcher was securely done through a typical e-mail client.

Though the majority of participants (n=25) expressed an interest in recording diaries, fewer committed. The number of participants recording multiple diary entries and by which medium as well as participants recording complimentary entries is summarised hereafter:

Participants recording multiple diary entries (n=15) Pen and Paper (n=2) E-mail (n=4) App (9)
Participants recording complimentary entries (n=3)

Whilst participants were encouraged to record 28 entries regularly, several participants completed fewer entries for reasons including stopping self-tracking, becoming too busy, or family bereavement. There was also variations across participants regarding how long intervals were between recording diary entries. This was advantageous in some respects as it meant some participants made more detailed recordings when changes perceived to be more significant occurred.

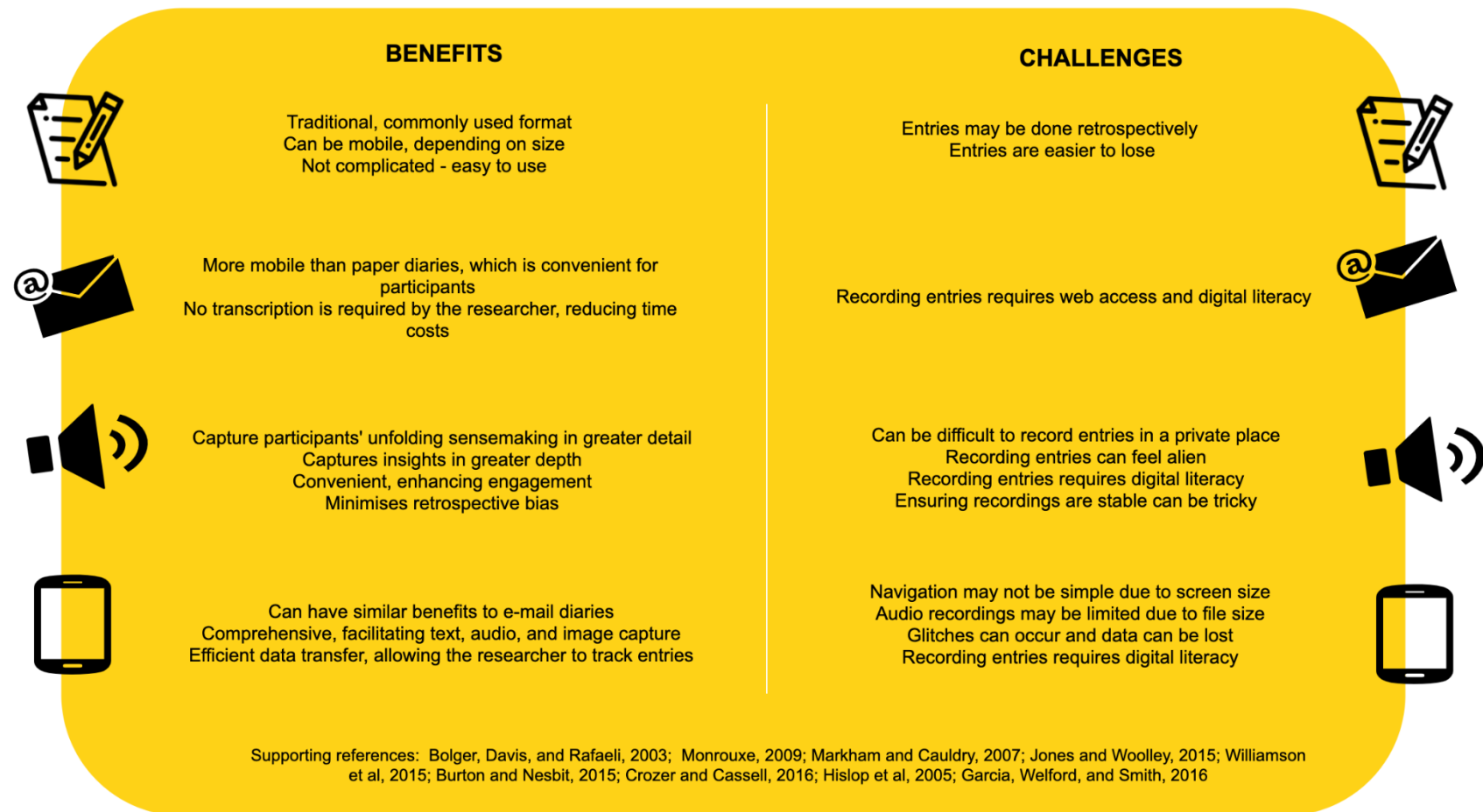


Figure 5.3 Benefits and Challenges associated with diary formats

As section 5.4.3.2 details, the diaries themselves were semi-structured. Conscious of creating diary questions which could enable rich insights helping to address the research aim and relevant research questions, the approach towards generating diary questions resembled that somewhat of constructing a general qualitative research question. That is, whereby questions often start as a rough draft and become developed or refined iteratively, perhaps with the help of others (Agee, 2009). Initially, six questions alongside an open space were designed. 3 individuals known personally to have experiences of self-tracking were asked to respond to such questions and provide feedback. This first piloting exercise was valuable as it became evident that there were some issues with the clarity or the wording of some questions. Like other first attempts at questions, some were also too broad Agee (2009). Revisions to these initial draft questions were made, therefore (See Appendix K) and feedback received.

As part of an iterative, interactive and reflective process (Agee, 2009), further attention was given to improving the focus of questions as new insights began to emerge upon earlier participants interviewed responding to the revised diary questions (see Appendix K). For example, upon reflecting on recordings it became evident that question 2 and 3 were sometimes producing repetitive answers. It became further apparent that merging questions could help to avoid repetition. This is in addition to potentially reducing participant burden by having fewer questions – reducing down the six questions which were noted by a participant as potentially too many. It also became evident that the next question could be revised to better address research questions 4 and 5 as there was scope to better capture insights relevant to occasions whereby individuals do not track. This in addition to the scope to invite participants to provide more specific details about feelings or thoughts emerging. Along with revisions to earlier questions then, revisions were made to the wording of other questions including the final question. The final question was revised to better encourage participants to record any further insights that they felt were relevant. Feedback from 1 of 2 participants completing this version of the diary led to one final refinement (Appendix K offers the further refined question set).

The iterative process of generating and refining diary questions meant that there were differences in the wording and number of diary questions between participants interviewed earlier completing diary entries and further participants completing diary entries. There was still consistency, nevertheless, regarding relevant content

provided amongst different participants' diaries. This is recognisably important and a clear benefit of including some structure to diaries (Crozier and Cassell, 2016).

Along with sending diary reminders, regular contact is important for maintaining participant commitment (Bolger, Davis and Rafaeli, 2003) - itself a challenge to achieve (Radcliffe, 2018). Regular contact also gives participants an opportunity to ask questions (Radcliffe, 2013). Reminders were, therefore, sent at agreed intervals and efforts to maintain regular contact (typically by e-mail) were undertaken during the diary recording process. Participants were contacted regularly in order to thank participants for their time, ensure there were no problems, to provide an opportunity for participants to ask any questions, and to be vigilant about whether participants were still happy to continue recording diary entries.

Upon receiving diary entries, actions to save and store data in line with ethical code of conduct were taken. Like any other data, diary data must be kept confidential (Waddington, 2013). Data was stored securely and anonymised with the pseudonym given to the participant after the interview.

5.5.2.4 Follow-up interviews

As section 5.4.3.3 mentions, the study offered an opportunity for a follow-up interview with participants completing diary entries. One participant decided to take a break from doing their diary due to the bereavement of an immediately family member. In this case, an invitation to a follow-up was not directly given. Instead condolences were offered, and the door remained open to them to return to the study if they wanted. Other participants were invited to do a follow-up interview. Some participants did not respond, suggesting participating in another interview after completing diaries may be too burdensome. Over half did agree to a follow-up interview, however. Details are summarised hereafter.

<p>Follow-up interviews (n=8) Telephone interview (n=5) Face to Face (n=3)</p>

During the interviews, questions which were prepared in light of reading participants' diary entries were asked. An opportunity was also taken to ask about the diary-keeping process, in response to suggestions by other scholars (e.g., Radcliffe, 2016).

5.5.2.5 Summary

This section has documented methods used throughout this study. This section draws to a close with a summary of methods each participant engaged with (see Table 5.5).

Pseudonym	Method: Interview	Interview Date	Interview Location/Site	Method: Diary	Method: Follow up Interview	Additional Sources (see below)
Joanna	Facetime	Oct 2017	Home	X	X	Academic literature
Lincoln	Face to Face	Jan 2018	Liverpool/Home	App	X	Image
Jamie	Telephone	Jul 2017	Home	E-mail	Telephone	X
Jessica	Face to Face	Jan 2017	Liverpool/University office	Pen-Paper	X	X
Charlotte	Face to Face	Jan 2017	Liverpool/University office	E-mail	X	X
Russell	Face to Face	Feb 2017	Liverpool/University breakout space	App	Face to face	X
Naomi	Face to Face	Mar 2017	Liverpool/University breakout space	Pen-Paper	Face to Face	Further comments
Natasha	Telephone	Apr 2017	Home	App	X	Further comments; Image
Hugo	Telephone	Apr 2017	Work	X	X	X
Lucy	Telephone	Jun 2017	Home	X	X	X
Skyler	Skype	Dec 2017	Work Office	X	X	Public Blog
Danny	Telephone	Jun 2017	Home	App	Telephone	X
Ethan	Telephone	Jul 2017	Home	X	X	X
Danielle	Face to Face	Feb 2017	Reading/Cafe	App	X	X
Penny	Face to Face	Feb 2017	Birmingham/Cafe	E-mail	Telephone	X
Rose	Face to Face	Mar 2017	Liverpool/Coffee shop	X	X	X
Grace	Telephone	May 2017	Home	X	X	X

Table 5.5 Details of research methods and participants

Pseudonym	Method: Interview	Interview Date	Interview Location/Site	Method: Diary	Method: Follow up Interview	Additional Sources (see below)
Oliver	Face to Face	Apr 2017	Liverpool/University breakout space	X	X	X
Tony	Face to Face	Dec 2017	Liverpool/Work Office	X	X	X
Andrea	Face to Face	Feb 2017	Liverpool/Cafe	E-mail	Face to Face	X
Carole	Face to Face	Mar 2017	Leamington Spa/Pub	App	Telephone	X
Rita	Telephone	Apr 2017	Home	App	X	X
Shauna	Telephone	Jun 2017	Home	Complimentary entry	X	X
Tina	Face to Face	Jul 2017	Carnforth/Work Office	App	Telephone	X
Lisa	Telephone	Jul 2017	Home	X	X	X
Emilia	Skype	Jul 2017	Home	X	X	X
Megan	Telephone	Jul 2017	Home	X	X	X
Jeremy	Face to Face	Jun 2017	Liverpool/Cafe	App	X	X
Carla	Face to Face	Apr 2017	Leeds/Home	Complimentary entry	X	X
Fiona	Face to Face	Apr 2017	Llandudno/Cafe	Complimentary entry	X	Further comments; images
Sally	Face to Face	May 2017	Leeds/Work	X	X	X
Denise	Face to Face	Aug 2017	Warwick/Home	X	X	X

Table 5.5 Details of research methods and participants (Continued)

5.6 APPROACHES TOWARDS ANALYSING DATA

Analysis of different data was guided by analytical approaches valuable for addressing the objective of delivering rich qualitative insight relevant to the study research questions. This section gives an overview of such approaches.

5.6.1 Thematic Analysis

Analysis of different data was inspired by and guided by, analytical approaches including Thematic Analysis (Braun and Clarke, 2006). Thematic Analysis entails identifying, analysing, and reporting patterns within data which are relevant to a research question (Braun and Clarke, 2006). Some scholars (e.g., Jackson and Mazzei (2013), who advocate a 'post-qualitative' approach, criticise such methods whereby data is organised into "mere themes and patterns" (ibid, p.265) on the grounds that such does little to account for the complexities of social life. Nevertheless, scholars including Braun and Clarke (2006) assert that Thematic Analysis is not only flexible, modifiable, and applicable across a range of theoretical and epistemological perspectives, but it also is an approach which can enable rich, detailed, and complex accounts. Whilst potentially challenging, an outcome of following the steps comprising the Thematic Analysis method can be that of a "compelling" and "interesting account" (Braun and Clarke, 2006, p.24). This makes it a valuable approach. Forms of Thematic Analysis have further been valuable in related studies exploring relations between human and non-human and capacities emerging. This includes studies associated with self-tracking (e.g., Lupton, 2018b, 2019a, 2019b).

On a practical level, Thematic Analysis typically comprises familiarising oneself with data, generating initial codes, collating codes into potential themes, reviewing themes, refining themes, and producing a report of findings (Braun and Clarke, 2006).

5.6.2 Dredging

Another approach guiding data analysis within this study is that of dredging data (Fox and Alldred, 2015). The approach is adopted in some earlier studies which chapter 3 acknowledges (e.g., Fox et al. 2018). As evident from this text, dredging can be helpful for highlighting, summarising and clarifying key active constituent components of an assemblage as well as capacities emerging. On a practical level, it involves a

close reading of transcripts to identify different components. It further involves reading transcripts closely again to identify and code affects and capacities emerging (Fox and Alldred, 2015; Fox et al., 2018). From these codes, a list can be made of all key components and ways they are affective. This in turn helps with acknowledging assemblages.

5.6.3 Thematic Trajectory Analysis

A further approach guiding analysis – diary data analysis particularly - is an approach entitled ‘Thematic Trajectory Analysis’¹⁰. This adaptable approach was initially developed by another PhD researcher personally known and subsequently tried and refined through collaboration efforts. The approach builds upon already established, legitimate methods. This includes Matrix Analysis (Nadin and Cassell, 2004) as well as Template Analysis (King, 2004; King & Brooks, 2018), which notably is not bound to a particular epistemology and can be adapted to various studies to make sense of data (Brooks et al., 2015). This approach towards analysing diary data is justifiable in several ways.

To elaborate, there are potential limits to exploring within-person differences over time or as new relations assemble when adopting more conventional methods. This is somewhat problematic for addressing questions in this study regarding how individuals interact with self-tracking technology and regarding changes to well-being emerging. This became apparent during initial diary data analysis (as section 5.7.3 elaborates). The Thematic Trajectory Approach provides a means to more explicitly acknowledge within-person changes as well as to identify differences between persons. Along with extending already well-established analytical procedures and allowing for within-person changes and between-person changes to be better accounted for, the approach also enables the production of visualisations of data (as evident throughout chapter 7). Visualisations are significant as they can enhance analytical insights produced and enable findings to be communicated in an increasingly engaging way. This not only can help to better address the objective of this research to deliver rich qualitative insight, but further scholars (e.g., Langley and

¹⁰ An expanded methodological paper derived from this method is currently invited by a journal for Revise and Resubmit

Text removed to protect the confidentiality of the review process

Ravasi, 2019) also suggest such benefits are a strength. To experiment with a reasonably novel approach (albeit one still grounded by existing legitimate approaches) and to de-territorialise (Deleuze and Guattari, 1987) somewhat to better address research questions is arguably also creative and entrepreneurial – something scholars (e.g., Gummesson, 2001, 2015) suggest marketing researchers should try to be.

Practically, the Thematic Trajectory Analysis approach adopted for this research comprised six main steps. Table 5.6 summarises these.

Step	Guiding Literature
Create a data display matrices	Miles, Huberman and Saldaña (1994); Nadin and Cassell, 2004).
Thematic template analysis (1): Produce a micro-template (based on each individual diary entry)	King (2004; Radcliffe and Cassell (2015); King and Brooks (2017)
Thematic template analysis (2): Produce a meso-template (An amalgamation of a number of micro-level templates)	King (2004); Radcliffe and Cassell (2015); King and Brooks (2017)
Consolidate meso-templates to create a macro-template	King (2004); King and Brooks (2017)
Produce a visualisation of thematic trajectories	Langley (1999); Bolger, Davis and Rafaeli (2003); Langley and Ravasi (2019)
Interpretation of visual outputs and template outputs	

Table 5.6 Steps involved in Thematic Trajectory Analysis

5.7 ANALYSING DATA

This section now details the process of analysing different data in light of the approaches aforementioned. Before elaborating, it is noteworthy to mention that researchers face choices regarding whether to analyse data with computer software or not. A benefit of analysing data with computer software is that some software packages (e.g., NVivo) can be relatively simple to use (Welsh, 2000). They also enable a researcher to organise and manage large volumes of data efficiently (ibid.). Analysing data with software, however, arguably runs the risk of alienating the researcher from their data and creating a distance between them and their participants (Gibbs, 2014). This is seemingly at odds with alternate ways of becoming embodied with and connecting with data, such as when performing analysis manually through methods including pen and paper (Maclure, 2013). Manual methods are not necessarily practical, however, if large volumes of data are generated. Large volumes, of which are typical for qualitative research (Lee and Fielding, 2004). Given these concerns, ways of entangling oneself with data in this research included manually analysing data, albeit taking advantage of software programs including Microsoft Word and Microsoft Excel to manage data.

5.7.1 Analysing online news article data

As section 5.4.2.2 highlights, an exploration of online news article data was considered an appropriate scoping exercise for informing potential areas to probe during interviews. The insights produced can also be useful for supporting an understanding of self-tracking and well-being which developed from interview and diary data. To help achieve this, a strategy for breaking the content open and gaining an overview of the data (Hodgetts and Chamberlain, 2014) was adopted. After reading an article and copying and pasting it into a word document, impressions of the text were noted down in an Excel spreadsheet. Attention was given to the tone of the article (e.g., whether the tone seemed more favourable towards self-tracking, sceptical, or mixed), and relevant messages conveyed were noted. Impressions regarding posted comments were also recorded. Segments of data were then coded. A code can be applied to any word, phrase, or larger segment of text (Belk, Fischer, and Kozinets, 2013). Themes generated from online news sources were read in light of themes generated from the primary research methods to clarify and support an understanding of what can matter to individuals who self-track. References to online comments which are relevant for supporting primary data and reinforcing a theme are

made within the findings chapters (see section 6.4.1, 6.4.3, 7.3.3. and 7.3.4, for example).

5.7.2 Analysing interview data

The analysis of interview data comprised a combination of steps advocated by a Thematic Analysis approach and dredging approach. The steps taken ultimately led to the generation of particular themes. Notably, Braun and Clarke (2006) suggest researchers consider what counts as a key theme. In this thesis, a theme reflects something relevant to research questions. A theme might be “given considerable space in some data items, and little or none in others, or it might appear in relatively little of the data set” (Braun and Clarke, 2006, p.85). Braun and Clarke (2006) further suggest that a theoretically-driven top-down approach or data-driven bottom up approach is taken to generate themes, albeit here top-down and bottom up processes interact somewhat. There is a specific interest in acknowledging what is of relevance to research questions, but insights associated with themes are grounded within the data.

The first step towards analysing interview data was to become familiar with data. Soon after undertaking the interviews, interview recordings were listened to and transcribed verbatim. Though time-consuming (Bryman and Bell, 2011), personally transcribing the interviews by oneself and repeatedly listening to what is said is one way of engaging with data. Transcripts were read closely, and as suggested by Moisander and Valtonen (2006), notes were recorded alongside text read. A brief summary regarding general impressions of each transcript was made.

The next step involved reading through transcripts again and applying codes to data. Coding was done manually and was guided by the research questions. Whilst coding, attention was given to what was relevant to a turn towards self-tracking. Attention was also given towards how data is interacted with and the affective capacities emerging from self-tracking. What was said by participants relevant to their lifestyle and ways they viewed their body before self-tracking, for example, was coded, as was anything influencing decisions or ability to self-track. Other data coded included references to interactions with technology, changes evoked by interacting with self-tracking technology, and tensions regarding self-tracking. Data was coded according to a

particular colour, to help with reviewing data and collating coded data into a spreadsheet. Figure 5.4 provides an example of coding.

C: I'm addicted to buying clothes off of Ebay, erm, with labels, cheap, nice, great, get some bargains. Problem is, I bought loads of bargains for a holiday that was at the start of 2 years ago, and then in the first month, gained 10 pounds, so these beautiful clothes that are now sat in a box waiting for me to get in them, don't fit. So I've spent all this money on lovely stuff but

Weight gain constrains capacity to wear desired clothes

I: It doesn't fit

C: It doesn't fit. But I refuse to buy the bigger size.

Resists spending money on bigger sized clothes

Interviewer: Right

C: So, its failed for 2 years. The going to the gym, paying for the gym every month didn't work. Working on my feet every day didn't work. And this (Fitbit) seems to be the thing that is kind of, making me try harder.

Gym efforts (does not help lose weight)

Work limiting opportunities for exercise (does not help lose weight)

(references to not moving much despite being on feet all day)

..

C: There are even some nights where I am near my target and I've only got 300 steps to do. I will literally do what my other half calls "knees of mother Brown". I'm just going knee raising exercises in the bedroom to make those extra steps.

Capacity for tracking to motivate

Review steps

Move more to increase step count

Workout at home

I: Right. That's interesting

Figure 5.4 Example of codes within an interview transcript

After immersing oneself with the data more by coding (Maclure, 2013), individual transcripts were re-read again, and a list of relations most important to each participant was created. For example, some important components evident in the above transcript which frame an interest in losing weight, and of which self-tracking in turn becomes significant, include body, “beautiful” clothes, money (spent on clothes) and fashion taste. ‘Dredging’ the data to identify what was significant to individuals was helpful for understanding better the unique characteristics of assemblages that individuals emerge from and which are relevant to starting self-tracking. Dredging data was further valuable for better understanding new connections emerging from self-tracking.

The lists alongside codes generated across participants’ data were then revised and patterns across participants’ data were acknowledged. This facilitated the generation of initial themes. Themes devised were revised as coded data across the data set and literature were moved back and forth within an iterative process. As one example, it was interpreted from particular codes and components listed that in addition to dress goals, an interest in slimming was also, for some, framed by perceptions of oneself becoming affected by a bigger body. Relevant components included clothes, retail spaces, dress size labels, or photos. A potential sub-theme regarding perceptions of self was reflected upon, however, and sub-themes associated with ‘image(s)’ and ‘dressing experiences’ were instead generated to better reflect what is significant for wanting to lose weight (see Figure 5.5 for examples of relevant codes and coded data). As themes were revised, visual maps were made to observe links between codes and themes, and to observe differences between themes.

Generating themes and reviewing themes	
<p>New sub-themes: image(s); dressing experiences</p> <p>Example of coded data</p> <p><i>"I saw a picture of myself on Facebook after a night out and went 'Oh my goodness' and I knew the way it had been creeping up, it was just before Christmas a couple of years ago, and I sort of thought, if I don't do something soon, like Christmas...putting weight on over Christmas, then I'm gonna be the biggest I've sort of ever been"</i></p> <p><i>"I got to my biggest size which was a size 20, which for me is like "oh my god, I can't believe I'm ever this, like shopping in the plus size section"</i></p> <p><i>"I'm addicted to buying clothes off of Ebay, erm, with labels, cheap, nice, great, get some bargains. Problem is, I bought loads of bargains for a holiday that was at the start of 2 years ago, and then in the first month, gained 10 pounds, so these beautiful clothes that are now sat in a box waiting for me to get in them, don't fit"</i></p>	<p>Code</p> <p>Visibility of bigger body evokes unfavourable feelings</p> <p>Fashion discourses signalling bigger body evokes unfavourable feelings</p> <p>Weight gain constrains capacity to wear desired clothes</p>

Figure 5.5 Examples of relevant codes and data for themes generated and revised

In line with suggestions by Braun and Clarke (2006), themes continued to be reviewed and thoughts regarding how they fit into the broader 'story' being told were contemplated. Braun and Clarke (2006) suggest this is useful for consolidating what will be articulated in the final write-up. Engaging in the process of writing in draft was helpful here, as this involved collating data extracts in a new way on a Word Document and further making sense of how to present data relevant to a particular theme coherently. Writing in draft and thinking about the data in relation to academic literature also brought new clarity regarding further revisions that could be made to themes to enhance clarity and ensure coherency. For example, the aforementioned subthemes including 'image(s)' and 'dressing experiences' were later collapsed into one subtheme: 'bigger body concerns flare'.

5.7.3 Analysing participant diary data

Although considerable attention is given to the value of diaries, less attention is given towards the process of analysing data. With limited guidance, it is simply down to the researcher, equipped with their knowledge and ability, to do their best to analyse data and present it in a logical, rich, stimulating way (Patterson, 2005). Typically, studies incorporating a diary element within marketing (see section 5.4.2.2) simply refer to commonly used approaches in qualitative research, including thematic analysis (Braun and Clarke, 2006), template analysis (King, 2012) or content analysis (Elo and Kyngäs, 2008). Likewise, after transcribing any diary entries recorded by audio and after compiling all of a participants' diary entries together in the order they were completed, data began to be analysed thematically. As with interview data, efforts were taken to become familiar with the data and code data to generate themes. Emerging, however, was a realisation whereby organising coded data into fragments did not effectively capture the dynamism of self-tracking and ways well-being emerges. A consequence, then, was that after conversations with another PhD Researcher and academic, a new way of thinking about approaching data materialised. This new approach is entitled Thematic Trajectory Analysis, as section 5.6.3 alludes. It was applied in this study.

The first step in this approach involved re-organising diary data into a matrix. A data display matrix is particularly useful for coherently organising data (Miles, Huberman and Saldaña, 1994) since it enables various data to be visible in one place (Nadin & Cassell, 2004) in temporal order (Miles, Huberman and Saldaña, 1994). For this research, the matrix was created with columns representing the temporal unit (e.g., date of diary entry recorded) and rows representing the key topics associated with the diary questions. Figure 5.6 offers an illustrative example of diary data organised into a matrix (N.B., only data extracts from a participant for the first two diary entries associated with the first three main question/topic areas are illustrated here due to space).

Danielle	1: 09 Feb	2: 10 Feb
How day was (+ relevant activity during day)	"Started OK, positive and ready to do a test run after a bad back spasm at the weekend. Unfortunately the run didn't go well and I had to make the decision not to run in the half marathon I've trained so hard for on Sunday :-("	"A bit different, was at a work conference all day which made a nice change. Lots of food on offer" "I did a short online strength workout, very simple controlled moves while tea was cooking to see what sort of things I could do without aggravating my back" (also went for a dog walk, as evident by data relevant to actions evoked by self-tracking)
Technologies and features interacted with and why; or technologies and features not interacted with and why	"I wore my Garmin for my run this morning and it automatically logs..but I paid little attention to the stats as I know it wasn't the best run in the world from how long it took me and how uncomfortable I felt. I haven't yet checked my steps..." "I've been logging on and off on my fitness pal since January...today I went on it and changed the settings as now I'm not going to be running so much, I can reduce my calories a little... shift the Xmas fluff.	"I did get my phone out to check my steps again just as I was walking home to check how far off I was" "I logged into my fitness pal while I was cooking...There was a lot of cakes etc on offer at the conference today but I did not eat one at every break time. I input a guess at what I had as I obviously had no real idea, and was pleased to see my decision of a light tea meant I was roughly within my calories I set just yesterday" "would normally start logging my food around lunchtime on mfp when I am tracking, but things were a little out of my control anyway and I didn't want to get too hung up, hopefully trusting my judgement..."
Impact on feelings and thoughts	"My fitness pal probably the one today, to give me back a sense of control since I can't control my running at the moment" "I didn't really need my Strava and Garmin to tell me I hadn't had a great run today, my body told me that"	"Was pleased to see id judged it well and was on 9500" (steps after "conscious effort to take dog for a long walk...in order to achieve steps"). "Nutritionally it wasn't necessarily the best day but I don't feel I over indulged...was pleased when I did log that I had made reasonably sensible choices"

Figure 5.6 Diary Matrix Example

The next step involved reviewing data again and creating micro-level templates for each diary entry a participant recorded. This step draws upon Template Analysis whereby templates are produced to reflect coded content (King 2004, King and Brooks, 2018). Coinciding with data generated within diary entries, with diary questions posed, as well as the research questions within the study, the micro-level templates created for this study were populated with coded content relevant to the following:

- Activity during the day
- Technologies interacted with (or not)
- How technological features are interacted with
- Impact of interacting (or not) with technological features

Following on from Figure 5.6, Figure 5.7 provides examples of micro-level templates. Notably, the numbers within these templates concur with content which came to populate each participants' meso-template.

A meso-template is an amalgamation of content from all of the micro-templates reflective of a participants' diary entries. During analysis, participants meso-templates were developed whilst simultaneously producing each micro-template. As content came to populate the template, numbers were assigned to the populated content to correspond with that in the micro-templates. Recorded also was the entry to which content was relevant. This was done by indicating the diary entry number in brackets. Figure 5.8 depicts a meso-template.

Danielle	1: 09 Feb	2: 10 Feb
Activity during day	Outdoor training run – 1.1 (to test limits to what body can do) – 7.1.1.1 (Bad run evokes sadness) - 7.1.2.1 (Injury limits running capacity) – 8.1	Work – 1.2 Workout at home – 1.3 Disciplined food choices – 1.4 Walking (with dog) – 1.5
Technologies interacted with (or not)	Garmin wearable – 2.1 Not interacted with MI band – 2.2 MFP food app – 2.3	MI Band – 2.2 MFP Food app – 2.3 Online workout programme – 2.4
How technologies are interacted with	Garmin: records activity - 3.1.1.1 (but does not review – listens to body) – 6.1.1 MFP: adjusts calorie goal – 3.3.2.1	Mi Band: records steps 3.2.1.1 and reviews steps (throughout day) – 3.2.1.1 MFP: Logs food (guesstimate) – 3.3.1.1 but new encounter leads to depending less on app – 3.3.1.2 (conference, food resources available) Reviews calories– 3.3.2.2. Other: Guided workout
Consequences emerging from interacting (or not) with technology and associated data	Adjusting calorie goals generates positive feelings (a sense of greater control) – 4.3.2.1.1 No obvious impact on actions regarding adjusting calories – 4.3.1.1 No obvious impact regarding not reviewing everyday activity – 5.2.1.1, 5.2.2.1 No obvious impact regarding recording training activity – 4.1.1.1, 4.1.2.1	Reviewing steps motivates one to move more to increase step count (walking with dog) – 4.2.1.1 Data marking achievements generates positive feelings (is pleased) – 4.2.2.1 Staying within calorie goals generates positive feelings (is pleased with food choices) – 4.3.2.2 (though acknowledges potential for exceeding calories to be less positive) – 4.3.2.5

Figure 5.7 Micro-template examples

Danielle (Meso-Template)	
<p>1: Activity during day</p> <p>1.1: Outdoor training activity (1, 7, 8, 10, 11, 12, 14, 16, 21, 27, 28)</p> <p>1.2: Everyday responsibilities (2, 3, 5, 22, 24)</p> <p>1.3: Indoor training activity (2, 3, 6, 10, 11, 14, 16, 17, 25)</p> <p>1.4: Managing food (2, 5, 6, 7, 10, 11, 14, 15, 16, 23, 25)</p> <p>1.5: Outdoor leisurely activity (2, 3, 4, 5, 7, 9, 13, 14, 15, 18, 20, 26)</p> <p>2: Technologies interacted with (or not) *Numbers indicate when technology is interacted with</p> <p>2.1: Wearable and associated app – training use (1, 7, 8, 10, 12, 13, 14, 16, 19, 21, 27)</p> <p>2.2: Wearable and associated app – everyday use (2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 15, 17, 18, 19, 20, 22, 23, 24, 25, 26, 28)</p> <p>2.3: Food app (1, 2, 5, 6, 7, 8, 10, 11, 14, 15, 16, 23)</p> <p>2.4: Other technology associated with exercise (2, 3, 4, 10, 11, 14, 16, 17, 24, 25, 26).</p> <p>2.5: Other technology associated with food (25)</p> <p>3: How technologies are interacted with</p> <p>3.1: Wearable and associated app/s – training use</p> <p>3.1.1: Logging with device</p> <p>3.1.1.1: Records activity (1, 7, 8, 10, 11, 12, 14, 16, 19, 21, 24, 27)</p>	<p>3.1.1.2: Sync exercise data with food data (16)</p> <p>3.1.2: Reviewing information generated with technology</p> <p>3.1.2.1: Review pace during activity (7, 8, 12, 14, 27)</p> <p>3.1.2.2: Review distance after activity (7)</p> <p>3.1.2.3: Review distance during activity (19)</p> <p>3.1.3: Socialising</p> <p>3.1.3.1: Share data on social media platform (7, 8, 10, 11, 19, 21, 24)</p> <p>3.1.4: Making sense of information generated with technology</p> <p>3.1.4.1: Making sense of data in relation to what body can do further (7, 8)</p> <p>3.2: Wearable and associated app – everyday use</p> <p>3.2.1: Logging with device</p> <p>3.2.1.1: Records activity (2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 15, 17, 18, 19, 20, 22, 23, 24, 25, 26, 28).</p> <p>3.2.2: Reviewing information generated with technology</p> <p>3.2.2.1: Reviews steps throughout the day (2, 3, 4, 5, 6, 7, 8, 9, 10, 18, 19, 20, 26)</p> <p>3.2.2.2: Review steps during activity (2)</p>

Figure 5.8 Meso-Template example

Danielle (Meso-Template continued)	
<p>3.3: Food app</p> <p>3.3.1: Logging with app</p> <p>3.3.1.1: Record food consumption (2, 5, 6, 7, 10, 11, 14, 15, 16, 23)</p> <p>3.3.1.2: Limited recording of food consumption (2)</p> <p>3.3.1.3: Sync food data with exercise data (16)</p> <p>3.3.2: Reviewing information generated with technology</p> <p>3.3.2.1: Adjust calorie goals (1, and prior to 17)</p> <p>3.3.2.2: Review calories consumed/burned (2, 6, 8, 10 11, 23)</p> <p>3.3.2.3: Review macronutrients (16, 23)</p> <p>3.3.3: Making sense of information generated with technology</p> <p>3.3.3.1: Make sense of data in relation to wider knowledge and information (6)</p> <p>3.3.3.2: Make sense of data in relation to exercise (8, 16)</p> <p>3.4: Other technology associated with activity</p> <p>3.4.1: Guidance</p> <p>3.4.1.1: Guided workout (11, 14, 16, 17, 25, 26)</p> <p>3.4.2: Logging</p> <p>3.4.2.1: Upload data onto social media platform for accountability (3, 11, 14, 17, 25, 26)</p>	<p>3.4.3: Socialising</p> <p>3.4.3.1: Read like-minded others' posts (10)</p> <p>3.4.3.2: Give recognition to like-minded others (10)</p> <p>3.4.3.3: Share data on social media platform (25)</p> <p>3.5: Other technology associated with food</p> <p>3.5.1: Guidance</p> <p>3.5.1.1: Guide food decisions (25)</p> <p>4: Consequences of interacting with technology & data</p> <p>4.1.1: Consequences of tracking training activity (action)</p> <p>4.1.1.1: No obvious impact (1, 3, 14, 27)</p> <p>4.1.1.2: Adjust bodily movement (7, 8, 12, 19)</p> <p>4.1.1.3: Share achievements with like-minded others (7, 8, 10, 14)</p> <p>4.1.1.4: Less disciplined relations with food (16)</p> <p>4.1.1.5: Manage workouts (17)</p> <p>4.1.2: Consequences of tracking training activity (feeling)</p> <p>4.1.2.1: No obvious impact (1, 10, 14, 27)</p> <p>4.1.2.2: Positive feelings emerge from adjusting bodily movement (7, 8)</p> <p>4.1.2.3: Positive feelings emerge from reviewing activity data (7, 11, 17)</p> <p>4.1.2.3.1: Sense of achievement (11)</p> <p>4.1.2.3.2: Motivation to do more (17)</p>

Figure 5.8 Meso-Template example (continued)

Danielle (Meso-Template continued)

4.1.2.4: Positive feelings emerge from sharing achievements and receiving recognition from others (8, 14, 19, 21)

4.1.2.4.1: Pride (8)

4.1.2.4.2: Happy with likes (14, 19, 21)

4.1.2.5: Scepticism about food and calories (16)

4.2.1: Consequences of tracking everyday activity (action)

4.2.1.1: Adjust bodily movement (2, 3, 4, 5, 10, 19, 20, 26)

4.2.1.2: No obvious impact (6, 7, 8, 9, 10, 11, 13, 15, 18, 20, 22, 24, 28)

4.2.2: Consequences of tracking everyday activity (feeling)

4.2.2.1: Positive feelings emerge from desirable data (2, 3, 4, 7, 15, 18)

4.2.2.1.1: Content (2, 7)

4.2.2.1.2: Reassurance (15)

4.2.2.2: No obvious impact (5, 6, 9, 11, 13, 19, 20, 22, 24, 26, 28)

4.2.2.3: Less positive feelings emerge from technical dysfunctions (8)

4.2.2.3.1: Annoyance (8)

4.3.1: Consequences of tracking food (action)

4.3.1.1: No impact (1, 2, 7, 11)

4.3.1.2: Working to make better decisions (5, 10, 25)

4.3.1.2.1 Food planning (5)

4.3.1.2.2: Balancing food consumed and not over-eating (5, 10, 25)

4.3.1.3: Mixed: Derails from plan but later works to make better decisions (6)

4.3.1.4: Not disciplining desires for food (8, 16)

4.3.1.5: Bodily sensations override so derails from plan (15)

4.3.1.6: Mixed - Discipline desire for food but ignore bodily sensations (23)

4.3.2: Consequences of tracking food (feeling)

4.3.2.1: Positive feelings emerge from adjusting calorie goals (1)

4.3.2.1.1: Control (1)

4.3.2.1.2: Appreciate positive feedback (prior to 17)

4.3.2.2: Positive feelings emerge from desirable data (2)

4.3.2.2.1: Content (2)

4.3.2.3: Positive feelings emerge from logging and reviewing food data

4.3.2.3.1: Focused (5, 6, 11, 25)

4.3.2.3.2: Control (6, 11)

4.3.2.4: No impact (7, 8, 10, 14 23)

4.3.2.5: Less positive feelings emerge when derailing from plan (15)

4.3.2.5.1: Less focused (15)

4.3.2.6: Less positive feelings emerge when making sense of data (16)

4.3.2.6.1: Scepticism (16)

4.4.1: Consequences of tracking other activity (action)

4.4.1.1: Test body limits (2)

Figure 5.8 Meso-Template example (continued)

Danielle (Meso-Template continued)	
4.4.1.2: Do a challenge (25)	
4.4.1.4: Manage workout routine (26)	
4.4.2: Consequences of tracking other activity (feeling)	
4.4.2.1: Positive feelings emerge from achieving (11)	
4.4.2.1.1: Focused (11)	
4.4.2.2: No obvious impact (26)	
4.5.1: Consequences of tracking others' activity (action)	
4.5.1.1: No obvious impact (4, 10)	
4.5.2: Consequences of tracking others activity (feeling)	
4.5.2.1: Less positive feelings emerge from seeing others' achievements (4)	
4.5.2.1.1: Jealous (4)	
4.5.2.1.2: No obvious impact (10)	
5: Consequences of not interacting with technology & data	
5.1.1: Consequences of not tracking training activity (action)	
5.1.1.1: Doing activity with less pressure (24)	
5.1.1.2: No obvious impact (5, 6, 22, 28)	
	5.1.2: Consequences of not tracking training activity (feeling)
	5.1.2.1: No obvious impact (5, 6, 22, 28)
	5.1.2.2: Less positive feelings emerge from missing data (24)
	5.1.2.2.1: Brief anxiety regarding data not recorded (24)
	5.2.1: Consequences of not tracking everyday activity (action)
	5.2.1.1: No obvious impact (12, 13, 14, 16)
	5.2.2: Consequences of not tracking everyday activity (feeling)
	5.2.2.1: No obvious impact (1, 9, 12, 13, 14, 16)
	5.3.1: Consequences of not tracking food (action)
	5.3.1.1: Does not resist desire for foods (less disciplined) (9, 14, 17, 22, 24)
	5.3.1.2: Makes sensible food decisions (3, 4, 20)
	5.3.1.3: No obvious impact (12)
	5.3.2: Consequences of not tracking food (feeling)
	5.3.2.1: Less positive feelings do not emerge from not tracking food
	5.3.2.1.1: Avoid self-destructive feelings from eating (4)
	5.3.2.1.2: Content (14)
	5.3.2.2: No obvious impact (9, 12)
	5.3.2.3: Less positive feelings emerge when less disciplined with food
	5.3.2.3.1: Guilt (prior to, and 17)
	5.3.2.4: Attentiveness to other strategies for addressing weight (24)

Figure 5.8 Meso-template example (continued)

Danielle (Meso-Template continued)	
6: Any disruptions limiting self-tracking:	7.2.1: Consequences of not doing activity (feeling)
6.1 Disruptions limiting tracking food	7.2.1.1: Less positive feelings (4)
6.1.1: Bodily sensations	7.2.1.1.1: Deflated
6.1.1.1: Listening to body (1, 9, 22)	8: Disruptions to doing activity:
6.1.1.2: Anticipated/Actual feelings (4, 14, 24)	8.1: Body injury (1)
6.1.2: Special occasions and resources available	8.2: Prioritise rest-recovery (15)
6.1.2.1: Work event (2)	8.3: Illness (18)
6.1.2.2: Birthday celebration event (3, 4)	
7: (Other) Consequences of doing particular activity (or not)	
7.1.1: Consequences of doing activity (action)	
7.1.1.1: Explore possibilities to what body can do (2)	
7.1.2: Consequences of doing activity (feeling)	
7.1.2.1 Mixed feelings emerge from activity not meeting expectations (1)	
7.1.2.1.1: Sad but reflecting on what can be done feels positive (1)	
7.1.2.2: Positive: Sense of achievement (1, 10)	
7.1.2.3: Positive: Connection with others (28)	

Figure 5.8 Meso-Template example (continued)

After reviewing the meso-templates, the next step comprised creating macro-templates. Macro-templates are an amalgamation of content from meso-templates. To help better address the research questions, a focus upon the creation of templates with refined themes which zoomed out on what was relevant to participants with similar interests was key. For example, some participants emerge from assemblages whereby produced is an interest in slimming. A macro-template was generated based on content revised from the templates of participants interested in slimming, therefore. The creation of macro-templates helped with digesting similarities and differences between participants regarding interactions with self-tracking technology and feelings and actions generated from participating in a self-tracking assemblage. Notably, attention had to be given towards ensuring the coverage of themes across macro-templates was consistent, in light of the next step involving the production of x-y visual diagrams to reflect the relevance of themes over time.

Themes reflecting how technologies are interacted with were revised to reflect a less interactive mode (e.g., recording data) or more interactive modes (e.g., consulting data by reviewing or making sense of data), for instance. Furthermore, themes reflecting changes from 'becoming organised by numbers' when interacting with devices, apps, and data, are grouped by 'favourable actions emerging', 'favourable feelings emerging', 'unfavourable actions emerging' 'unfavourable feelings emerging', 'mixed actions emerging' and 'mixed feelings emerging' across the macro-templates. Favourable actions when recording and reviewing food, for example, are associated with better decision-making. Notably, throughout the process of interpreting what is favourable or not, attention was given to what encourages participants to track and the language participants used when expressing themselves. Expressions like "happy" "success" and "yeah me I smashed it!", for instance, were associated with more favourable changes. Figure 5.9 provides an example of a visual diagram. Further examples are evident throughout Chapter 7.

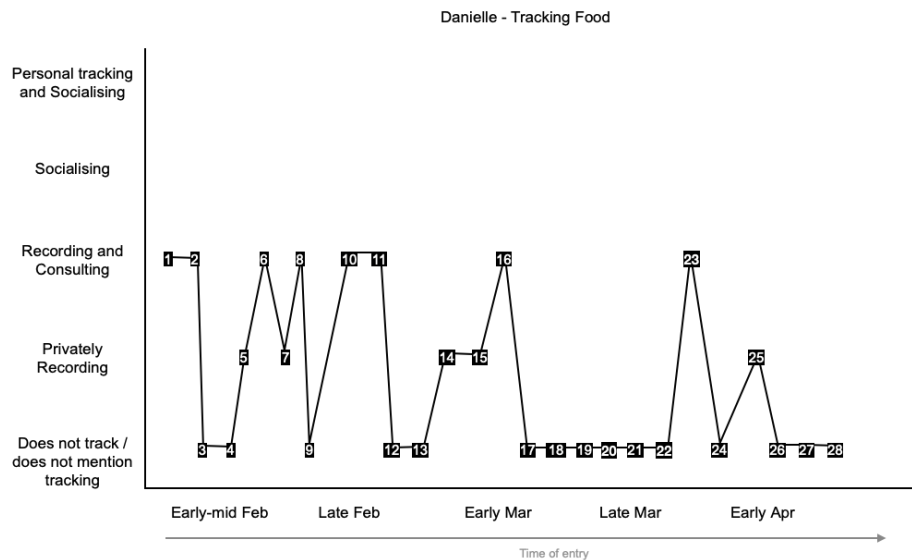


Figure 5.9 Visualised thematic trajectory example

As Figure 5.9 depicts, the x-axis of the visual diagrams signals the temporal period (e.g., the time period a diary entry was completed) The y-axis meanwhile, signals key themes from the macro-template. The numbers marked on the diagram are indicative of the diary entry whereby content relevant to a key theme is evident.

When creating visual diagrams, some challenges can be encountered. One challenge included that of how to map themes co-occurring. Participants like Danielle may log data and review their data and socialise by sharing data, for instance. Following discussions with others experimenting with this method, it was decided that labels reflective of combined themes would be tried. Hence themes for diagrams like that of 'Recording and Consulting' (associated with participants not just logging data but also reviewing data or making further sense of data) and 'Personal tracking and socialising' were included. Combining themes was especially effective for helping to avoid multiple, messy and unclear trajectory lines.

Visual diagrams can be beneficial, however. Visualising qualitative data is argued by some scholars (Langley and Ravasi, 2019) to help with making sense of data. Corresponding with the next step of interpreting trajectories and considering particular patterns, the visual diagrams helped with making sense of patterns. This includes: patterns regarding fluctuations in attention and energy invested towards tracking; favourable, mixed, or unfavourable changes generated in light of such interactions; and patterns regarding new capacities generated when particular

relations assemble which give a more mixed picture of how well-being changes. As Langley and Ravasi (2019) further argue, visualising qualitative data can help communicate data to an audience in stimulating ways. Visual diagrams have been included throughout this thesis (see chapter 7) to compliment textual insights. Notably, efforts to create diagrams were initially attempted through the use of Inkscape software. This was later changed to Keynote as this software was found to be personally easier for creating aesthetically better diagrams efficiently.

5.8 REFLEXIVITY

An objective approach towards research may comprise researchers repressing their engagement with a context studied so that clear, non-messy, neat accounts can be produced (Law, 2004). Reflexivity is becoming increasingly encouraged within social sciences, nevertheless, for reasons including researchers better comprehending their role in contributing to knowledge. Consumer researchers are encouraged to contemplate their personal experiences (Wallendorf and Brucks, 2002) in order to better understand their influence on a research process and insights generated. Reflexivity is not straightforward, however (Bettany and Woodruffe-Burton, 2006, 2009). Though not prescriptive or mutually exclusive, there are at least four different reflexive approaches that can be taken (see Appendix L). These approaches are underpinned by varying ontological assumptions regarding the nature of the researcher and researched, what knowledge is, and how it is constructed (Bettany and Woodruffe-Burton, 2009). Approaches towards reflexivity may shift throughout a research project, nevertheless (Bettany and Woodruffe-Burton, 2006, 2009).

Resonant with Bettany and Woodruffe-Burton (2009), an objectivist reflexive approach has been engaged with here at times despite the research not being underpinned by objectivist thinking. Efforts have been made to be transparent about the research process by commenting on, and justifying methods, for instance, in light of an understanding of what is expected within a methodology chapter of a PhD thesis.

Reflexivity has also been engaged with here by acknowledging ways a personal history shapes the research process (Takhar and Chitakunye, 2012). It is acknowledged here that this research topic was sparked not only by research interests associated with well-being. This research was also sparked by an increasing personal interest in self-tracking, owing somewhat to a brief history of interacting with

a Fitbit device. Close to the time I started the PhD, I began self-tracking with a Fitbit Surge. I quickly became attentive to ways interacting with my frequently worn clunky device and the data constantly generated was shaping what I did and how I felt. At the same time, I was becoming immersed with literature regarding well-being and noticing gaps in knowledge regarding well-being. It cannot be overlooked that my orientation to self-tracking and my noticing of changes generated for myself by tracking has been affective, contributing to the motivation of this research project.

It cannot be overlooked that my journey of self-tracking started to lead to certain ideas surrounding self-tracking. For instance, I began to question whether tracking has the capacity to become addictive for somebody predominantly trying to be more active with others interested in stepping, for instance. Conscious that particular ideas can become further borne from personal experiences, I became concerned about the need to better understand what could be derived from participants' accounts without simply becoming overly influenced by own ways of becoming affected by self-tracking and own perspectives of self-tracking. In addition to employing interviews and diaries, then, I engaged in autoethnographic reflections by recording personal diary entries, taking screenshots of data striking my attention, and making notes to capture spontaneous thoughts regarding self-tracking (or not self-tracking). Effectively becoming a subject of this research helped with disentangling what is familiar to me with that of other participants who turn to tracking and develop further capacities. This also helped with engaging empathetically and better understanding others (Pink and Fors, 2017) as well as noticing more particular themes that could be generated from the data. As an example, my increasing realisation that a thematic analysis of diary data was not capturing the dynamism of self-tracking interactions was, I feel, shaped by it becoming increasingly evident to me that my own interactions with self-tracking objects varied a lot. In addition to wanting to work around the limits of a conventional thematic approach, then, the decision to adopt a new analytical technique was also implicated by my own self-tracking relations.

Further thoughts emerging whilst becoming reflexive have included those associated with the presentation of data to communicate participants' insights. Though data has been communicated through the use of themes and some visual trajectories (see chapters 6 and 7) throughout this thesis, I recognise that this is but one avenue. There is scope for presenting findings in alternate ways (McLeod, 2017), especially if seeking to engage with different audiences. Lupton (2019d) brings attention to the potential of poetic representations for re-assembling data generated from story-based

completion methods or interview methods. Notable in particular is their potential for conveying ways well-being can be achieved from what is assembling. This could be perhaps but one alternative way of re-presenting insights. As suggested at a recent CCT roundtable discussion, ways of moving forward to advance the poetic agenda could include the use of poetry to frame or illustrate a topic. Alternatively, it could include the conversion of research papers into poems (Sherry Jr, Schouten and Downey, 2019). Leveraging insights in such a way is further justifiable, therefore.

Further noteworthy, however, is ways the researcher and participants engaging with the study can be implicated by the research process. This coincides with a multiplex approach (Bettany and Woodruffe-Burton, 2009). Reflexive insights associated with this are apparent within the discussion chapter and conclusion (see sections 8.4 and 9.7).

5.9 CHAPTER SUMMARY

This chapter began by reiterating the research objectives and questions and discussing the philosophical perspective associated with this study. The chapter highlighted that underpinning this study is a relational ontology. The chapter then began to address and justify the methods employed throughout this research for addressing research objectives and questions. Methods include desk-based methods and primary methods including semi-structured interviews, participant diaries, and follow-up interviews. A further discussion of the actual process adopted in generating data followed. Ethical considerations including those surrounding informed consent and privacy was highlighted throughout. The chapter then further discussed analytical approaches before offering some reflections.

The thesis now proceeds to present insights generated from the methods employed. These are presented within two chapters (chapters six and seven). The first findings chapter focuses on what comprises participants' self-tracking assemblages as well as what leads to self-tracking. The second findings chapter, meanwhile, focuses on changes generated from self-tracking which contribute to well-being in new ways.

CHAPTER SIX: BECOMING OPEN TO, AND INVESTING IN, SELF-TRACKING

6.1 INTRODUCTION

Insights emerging from data analysis are organised into two findings chapters (chapter 6, and chapter 7, respectively). This first findings chapter (chapter 6) introduces what is important to different individuals when turning to self-tracking. The chapter illustrates interests generated for individuals when affected by others. The chapter further illustrates how individuals come to commit towards investing in self-tracking practices. Research objective 3 and research question 6 are consequently addressed. To reiterate, the relevant Research Objective states:

To develop an appropriate research method assemblage for investigating how participating in a self-tracking assemblage influences well-being.

The relevant associated research question asks:

What human and non-human components influence individuals to start interacting with health/fitness wearable devices and integrated apps, or standalone apps?

Notably, several findings presented within this chapter are also relevant to research question 6 when read in light of findings presented in the subsequent chapter regarding affects and capacities generated from relational connections with devices, apps, and co-generated data. To reiterate, this research question asks:

How do new well-being possibilities (opened up/concealed/overshadowed) from self-tracking compare with what individuals experience when not self-tracking with particular health/fitness wearable devices and integrated apps, or standalone apps?

By addressing Research Question 3, it becomes clearer that both human and non-human bodies are significant for contributing towards the generation of particular interests which cannot necessarily be disentangled from individuals' openness to self-track. Furthermore, both human and non-human bodies can be significant for contributing towards investing in self-tracking technologies and associated practices.

This itself can add to a growing body of work relevant to CCT which challenges the emphasis towards the agency of consumers. Insights from this chapter can be particularly fruitful given other valuable work discussed within the prior literature review. To recap, it is suggested in literature published by others inspired by Deleuze-Guattarian ideas, such as the work of McLeod (2017), that there is scope to better understand and evaluate changes to well-being when new affects and capacities emerging are contemplated in light of other relevant experiences. There is scope to build on knowledge produced in existing self-tracking literature (reviewed in chapter 4) and add to CCT literature and bring the important concept of well-being (as emergent and relational) closer into the spotlight, therefore, by considering findings presented within this chapter in light of those presented thereafter.

The structure of this chapter is as follows. Provided first is an overview of wearable devices, apps, and data that participants (at the time of interview) mainly interacted with. This overview helps to introduce data components that matter within a self-tracking assemblage more broadly. Following this overview is a discussion of prior experiences whereby a range of interests are configured from relational encounters in everyday life. These experiences are relevant to the turn towards self-tracking. Succeeding this is a focus upon insights regarding what leads to investing in self-tracking technologies, which have the potential to convert assemblages that individuals already are emerging from.

6.2 AN OVERVIEW

This section provides a snapshot of different wearable devices, apps, and data that individual participants interact with. A brief discussion of information presented follows. Information provided within Table 6.1 conveys how long participants have tracked with particular wearable devices and/or apps significant at the time of interview and largely discussed within. Information provided also conveys types of private data individual participants interact with. Whether tracking comprises of social connections with other self-trackers is also indicated. The following discussion helps to introduce further, as well as clarify to the reader, what different digital devices and platforms and data there are, and their significance.

Name*	Wearable(s) and/or App(s)	Duration	Meaningful Data				Social moments with others who track		
			Exercise	Food/Drink	Sleep	Other	None	Challenge	Other
Russell	Stronglifts 5x5 (Free version)	3 months (re-started)	Weightlifting sets (timed)	-	-	Body weight	-	-	Share data with friend
Joanna	MyFitnessPal (in connection with spreadsheet)	4 years	-	Food, Ingredients, Calories, Protein, Carbs, Fats	-	Body weight	-	-	Share data with Nutrition Coach
Danny	MyFitnessPal	4.5 months	Adjustments	Food, Portions, Ingredients, Calories, Salt, Fats	-	Body weight,	X	-	-
	Fitbit Charge 2 (upgraded from Fitbit Charge, and Fitbit One)	3 years	Steps, Reminders, Workouts, Calories	-	Bedtime reminder	Body weight, Heart rate	-	In-app with friends	-
Shauna	MyFitnessPal	2 years	Adjustments	Food, Calories	-	-	X	-	-
	Fitbit Charge 2 (upgraded from Fitbit Charge HR)	2 years	Steps, Workouts, Calories Badges	-	-	Heart rate	-	In-app with family and friends	Regular meet-ups comparing data
Ethan	MyFitnessPal	7 Months	-	Food, Calories	-	-	X	-	-
	Fitbit Charge HR		Steps	-	Quality, Duration	Body weight, Heart rate	-	In-app with friends	Conversations Upload-Share data on social media

Table 6.1 An overview of participants' interactions with wearable devices, apps and data

Name*	Wearable(s) and/or App(s)	Duration	Meaningful Data				Social moments with others who track		
			Exercise	Food/Drink	Sleep	Other	None	Challenges	Others
Jessica	MyFitnessPal	2 years	-	Food, Calories	-	-	X	-	-
	Fitbit Charge HR 2 <i>(Upgrade from prior devices)</i>	3 months <i>(2 years)</i>	Steps	-	Quality	Heart rate, Heart Score	-	In-app with friends	-
	10k app		Time	-	-	-	X	-	-
Danielle	MyFitnessPal	1 month <i>(re-started)</i>	-	Food, Calories, Protein, Carbs	-	-	X	-	-
	Mi Band	3 years	Steps	-	Quality, Duration	-	-	-	Conversations
	Garmin <i>(in connection with Strava)</i>	1 Month	Speed, Distance, Pace, Routes	-	-	-	-	-	Upload-Share and view data on social media
	PT Pocket		Workouts	-	-	-	-	-	
Penny	Weightwatchers app	>10years <i>(on and off)</i>	-	Points, Recipes	-	-	X	-	-
	Fitbit Flex	2.5 years	Steps	-	-	-	X	-	-
Rose	Nutracheck app	6 years	-	Food, Ingredients, Calories, Fat	-	X	-	-	-
	Fitbit Charge	2 years	Steps	-	-	-	-	-	Conversations

Table 6.1 An overview of participants' interactions with wearable devices, apps and data (continued)

Name*	Wearable(s) and/or App(s)	Duration	Meaningful Data				Social moments with others who track		
			Exercise	Food/Drink	Sleep	Other	None	Challenges	Others
Tina	Weightwatchers app	>10 years (on and off)	Intensity, Adjustments	Calories, Points	-	-	X	-	-
	Garmin Vivoactive HR (switch from Fitbit Flex)	5 months	Steps, Routes, Distances, Adjustments	-	Duration (initially)	Heart Rate	X	-	In-app with friends
Andrea	Fitbit Charge 2	1 Month	Steps, Calories	Food, Calories	Sleep (initially)	Heart rate	X	-	-
	MapMyRun	3 years	Distance, Speed, Pace	-	-	-	X	-	-
Tony	Garmin (in connection with Strava and spreadsheet)	18 months	Routes, Speed,	-	-	Heart Rate	-	-	Upload-Share and view data; Conversations
		18 months	Distance, Segments	Food	-	-	-	-	-
Naomi	TomTom Multisport (in connection with Strava)	10 Months	Steps, Speed, Distance, Segments, Routes, Mins	-	-	Heart rate	-	-	Upload-Share and view data; Conversations
Jeremy	TomTom Multisport (In connection with Strava)	2 years	Calories, Pace, Distance,	-	-	-	-	-	Upload-Share and on social media
		1 Year	Routes	-	-	Rest days	-	Virtual challenges; Boards	Conversations
	Relive	-	Routes	-	-	-	-	-	-

Table 6.1 An overview of participants' interactions with wearable devices, apps, and data (continued)

Name*	Wearable(s) and/or App(s)	Duration	Meaningful Data				Social moments with others who track		
			Exercise	Food/Drink	Sleep	Other	None	Challenges	Other
Jamie	Suunto	2 years	Pace, Speed, Distance,	-	-	-	-	-	
	Movescount, (in connection with Strava)	2 years	Schedule PB's Routes						Upload-Share and view data
	TrainingPeaks	2 years	Split times	-	-	-	X	-	Coach' plans
	HR Monitor	In races	-	-	-	Heart rate	X	-	-
Oliver	Fitbit Alta HR	<1 month	Steps, Mins	-	Duration	Heart rate	X	-	-
	Suunto Multisport, MovesCount (in connection with Strava)	2 years	Pace Segments	-	-	-	X	-	-
	My Asics	(re-started)	Schedule	-	-	-	X	-	-
Charlotte	Fitbit Charge 2	2 months	Steps, Pace	-	Sleep goal (initially)	Heart rate, Fitness age	X	-	-
Lucy	Fitbit Blaze (alongside weighing scale)	2 years (8 months)	Steps, Adjustments	Food, Calories, Water intake	Duration	Body Weight	-	In-app with colleagues or friends; Virtual run	Upload-Share data on social media

Table 6.1 An overview of participants' interactions with wearable devices, apps, and data (continued)

Name*	Wearable(s) and/or App(s)	Duration	Meaningful Data				Social moments with others who track		
			Exercise	Food/Drink	Sleep	Other	None	Challenges	Others
Denise	Fitbit Alta <i>(Has prior experience with a range of devices)</i>	6 months <i>(10 years)</i>	Steps	-	-	-	X	-	-
Carole	Fitbit Zip	3 months	Steps	Water intake	-	Body Weight	X	-	-
Lincoln	Fitbit Surge	<1 month	Steps, Calories	-	-	Heart rate	X	-	-
Sally	Fitbit Charge 2	<1 month	Steps, Distance, Calories	Water intake	Duration, Quality	Heart rate, Fitness age, Relax	-	In-app with family and friends	-
Rita	Fitbit Blaze <i>(Upgraded from Fitbit Flex)</i>	<2 years	Steps, Floors, Active mins	-	Duration	Badges	-	In-app with friends	-
Hugo	Fitbit Charge 2	3 months	Steps, Active minutes	-	Duration, quality	Heart rate, Cardio zones	-	In-app with friends, colleagues	Conversations
Fiona	Fitbit One	2 years	Steps, Floors	-	-	Badges	-	In-app with friends; Virtual challenges	Upload-Share and view data on social media Conversations

Table 6.1 An overview of participants' interactions with wearable devices, apps and data (continued)

Name*	Wearable(s) and/or App(s)	Duration	Meaningful Data				Social moments with others who track		
			Exercise	Food/Drink	Sleep	Other	None	Challenge	Other
Carla	Motorola Smartwatch <i>(switch from Fitbit)</i>	>2years	Steps, Calories	-	-	Heart rate	X	-	-
Grace	Fitbit Charge	2 years	Steps, Calories	Food, Calories	Quality	Heart rate	-	In-app with friends	-
Emilia	Apple Watch <i>(has prior experience with a range of devices/apps)</i>	5 months >4 years	Steps, Distance, Speed, Calories	-	-	Notes after activity	X	-	-
Lisa	Fitbit Blaze <i>(in connection with spreadsheet)</i>	14 months	Steps, Calories	-	Duration	Heart rate	-	In-app with friends	-
	Samsung Health	>14 months	Steps, Routes	-	-	-	X	-	-
Skyler	Apple Watch <i>(has prior experience with a range of devices)</i>	2 months >2 years	Steps, Active mins, Standing mins, Calories	-	-	Heart rate	-	-	Upload-share data on social media <i>(inc. Twitter; blog);</i> Conversations
	AutoSleep app		-	-	Duration, Quality	-	X	-	-
Megan	Fitbit Flex	~6 months	Steps	-	Sleep <i>(initially)</i>	-	X	-	-

Table 6.1 An overview of participants' interactions with wearable devices, apps, and data (continued)

6.2.1 Wearable devices and/or apps interacted with

It is evident from Table 6.1 that many participants tracking aspects related to physical exercise interact with devices designed to be worn on the wrist as well as their associated app. There are several points to be made here, however. There are some exceptions regarding whether such devices are worn on the wrist or not. For example, Lisa, working in midwifery, is unable to wear her device on her wrist during working hours. She therefore attaches her device to her uniform when at work, as if it were “like a fob watch”. Devices typically worn on the wrist can have an interactive screen whereby specific data (e.g. number of steps, heart rate) is viewable to participants upon first glance or touch. Some cheaper devices, nevertheless, require the syncing of data to a linked app for such information to be presented. For clarification, syncing is when data is transferred from one system or platform to another in order to provide an updated record. This is the case for participants such as Megan. Megan refers to having a “basic” device which does not “give information straight away”. Instead it offers “a series of dots” when “tapped”. According to promotional material, these light indicators indicate incremental progress towards a step goal. What these “dots” indicate to Megan is not necessarily clear, however. She states: “I think if you got to 5 you were some kind of star”.

Some participants (e.g. Danny, Rita, Emilia), refer to upgrading to a wrist-worn device after having a device attached to clothing. One participant (Carole), meanwhile, only has experience interacting with a device attached to clothing, whilst another participant (Fiona) has a clip-on device which she states was worn on her “bra for just over a year” but now is worn on her wrist since she “realised you could buy a wristband for it”. From information presented in the table it is also apparent that only one participant (Russell) has experience re-starting with a specific app to compliment gym workouts and does not interact with a wearable device at all. What is also quite rare amongst participants is the inclusion of other components within an exercise tracking regime. To elaborate only two participants, Lisa and Tony, respectively, refer to having “excel charts” and “spreadsheets”.

6.2.2 Data that can become significant

The amount of data and type of data relevant to particular exercises which becomes of interest to participants varies. As is evident from Table 6.1, the majority of

participants are at least interested in step counts. Those expressing little to no interest in step data tend to be attracted by other metrics such as “pace” and “distance”, which is more relevant to specific training workouts relative to more leisurely exercises.

A number of participants (n=15), meanwhile, track food and/or drink. Whether this is ingredients comprising a dish, the nutritional content of food (e.g. calories, fats), food portion sizes, or water intake. As Table 6.1 conveys, several participants (n=9), tracking food have a specific app tailored towards monitoring food consumption. The remaining number of participants record food related data on apps associated with their wearable device. As with exercise tracking, the inclusion of other components (e.g., spreadsheets) is rare. Only 1 participant (Joanna) refers to “self-created spreadsheets” and “Google docs” to analyse food-related data against other data and self-reported measures. Notably, whilst some participants monitor food solely with apps, other participants refer to tracking food alongside resources provided by slimming club institutions.

Sleep data is of interest to several participants also. However, as Table 6.1 highlights, sleep data only captures the interest of some participants for a limited time. This is largely due to the limited capacity of sleep data to generate meaningful changes for several participants.

Table 6.1 further conveys that for many participants (n=21), self-tracking comprises some form of connection with others who track themselves or show interest in the data of others. Challenges with others, in particular, are participated in by several (n=13). For many, these challenges are facilitated in-app. They enable the comparison of data regarding step count with the data of others across a leader-board which is updated as individuals sync their data. These challenges tend to be daily, span across a typical workweek (i.e. Mon-Fri), or span across a weekend. Other types of challenges, however, include those encouraged on social media groups (e.g. Facebook groups). This can include Virtual Run challenges, whereby participants sign up to an event or to do a particular distance, upload data representing real-life movement, and attain rewards. As Table 6.1 acknowledges, participants including Lucy join these. Lucy asserts:

“I am in a virtual running group because you can basically run anywhere in the world and you get a medal, like 5k, 10k,

marathon... you get goodied along the way. And we all do it. We challenge each other through that.”

Alternatively, challenges encouraged on social media groups can comprise those invented by group members/leaders. Fiona, who participates in a social media group assembling self-trackers from across the globe explains that challenges which encourage a particular number of steps or which span a certain period (e.g. season), are set up “all the time” for members of the community to join in.

Other challenges include those anticipated after comparing data with others on social fitness networks (e.g. Strava). Participants including Jeremy can, in particular circumstances, be spurred on when viewing data presented on virtual leader-boards, for example. Jeremy, who views an attempt to beat others as a “challenge” explains:

“Sometimes I look at those leader-boards and think I actually am doing really well, maybe I should get out and try beat 1 more place on the leader-board.”

Notably, some participants do participate in private solo challenges also. Natasha, for example, participates in in-app challenges whereby she can explore virtual trails and collect “treasure” as real-life steps are transformed into digital steps across a selected adventure map. Private challenges are also offered on social fitness networks such as Strava, which participants including Jeremy notice, and occasionally participate in. Jeremy comments:

“With Strava, they have these little challenges, like run a 10k in June, run a half marathon, you can tick it off and set it off as your own challenge.”

Additional ways of connecting with others include uploading and sharing data for others to view and potentially respond to with likes or comments on social fitness networks such as Strava and/or on social media platforms such as Twitter, Instagram, or Facebook. Furthermore, some participants engage in conversations about data co-generated with like-minded others online or with familiar people known in-person.

From this overview, then, it can start to be established that what comprises a self-tracking assemblage can, and does, vary across individuals. Tracking may generally

include interactions with few data metrics for some, or alternatively a vast range for others. Furthermore, tracking may be generally more private for some, or more social for others. Notably, why particular data interacted with becomes meaningful may also be contingent upon how participants are affected by prior connections. Hence, this chapter now turns attention towards individuals' experiences preceding the turn towards self-tracking.

6.3 AN OPENNESS TO SELF-TRACKING: EXPERIENCES PRIOR TO INVESTING

This section presents insights from individuals which cannot necessarily be disentangled from ways they invest in self-tracking technologies. The many human and non-human components which have a capacity to contribute towards an individual's interest to make lifestyle changes and self-track emerge through this section. Highlighted are the connections with human and/or non-human components which contribute to individuals wanting to become slimmer. Connections with human and non-human components which also influence individuals wanting to boost existing fitness or dietary regimes, create training goals, or engage in experimental projects, are also considered. These interests are notably not necessarily end goals in themselves, but rather can be anticipated as paths towards ways of enhancing well-being.

6.3.1 Slimming

This section focuses upon participants with an interest in slimming. In particular, the section draws upon data from participants including: Ethan, a PhD researcher who is soon to embark upon a new career; Danny, a self-employed jewellery maker; Lincoln, working in IT support; Rose, a health and well-being service manager; Lisa, a ward sister working in midwifery; Fiona, running a hospitality business; Carole, a mobile hair-dresser, and Lucy, working in an office-based role. These participants come to view their body as having excess fat and/or having unwanted excess weight. When concerns about their body arise, they wish to de-territorialise and become slimmer. To briefly re-cap, de-territorialisation regards breaking away from an existing form or organisation. This section proceeds by identifying what can contribute to bodies moving further away from wishing to slim down or from becoming-slimmer. This is before discussing what can also fuel an interest in becoming slimmer. Before

elaborating, provided is an overview of participants and examples of their unique set of relational connections relevant to the transition towards desiring-slimming.

Participant	Moving away from a slimming body	What produces an interest in becoming slimmer
Lucy	Sedentary mindset - (availability of) transport Food – appetite - (availability of) takeaways Food – family – cultural norms	Photo – social media – body size Body – clothes – size labels – retail space
Ethan	Food – appetite – (availability of) takeaways	Belly fat – muscles – career ambitions – fashion trends – perceptions - clothes Age – health - discourses
Danny	Arthritis – (limited) advice – health professionals - home space Food – appetite – work	Body size – media
Lincoln	Food – taste preferences	Food - energy levels Memories of younger body – magazine media – muscles
Rose	Food – appetite – carefree mindset Sedentary mindset - home comforts Sedentary work life – office space	Friends' illness –perceived risks –discourses – prior habits
Lisa	Time available to exercise – family Appetite – (availability of) takeaways – work demands	Body – clothes – size labels
Fiona	Mindset – work demands – family – time available - residential location	Discourses – mindset regarding personal responsibility Age – family
Carole	Bullies – mobile job - work space – work hours – home comforts Body - health condition – home comforts	Body – clothes – retailers – money Body – feelings of lethargy

Table 6.2 Transitioning towards wanting to become slimmer

6.3.1.1 Moving away from a slimmer body: Less disciplined food consumption

As touched upon in chapter 3 of the literature review (section 3.3.3.2), scholars including Fox et al., (2018) have found that particular foods consumed can territorialise bodies as becoming-fat or becoming-slimmer. Several relations surrounding food practices are found to significantly contribute to foods consumed. They too, therefore, can contribute to the territorialisation of a fattening or slimming body. Resources including money which frame what types of food can be afforded, as well as food outlets including supermarkets, restaurants and takeaway shops which determine what foods are available, can be significant relations for becoming-fatter (ibid.). Further significant relations identified by Fox et al., (2018) include other people such as friends, and family with certain food preferences to cater for.

Across participants within this study there are references to particular foods or drinks consumed which in turn are territorialising. Furthermore, there are various references to other significant components which frame what foods are consumed and which are territorialising. In other words, contributing to gaining weight, or being counterproductive to becoming less heavy and slimmer.

Regarding food, there are references from Rose to foods including “pizza” and drinks such as “wine”. Lincoln, meanwhile, refers to “junk” including “burgers”, whilst participants including Danny refer to sugary snacks such as “biscuits”, and Carole alludes to confectionary such as “Chocolate Orange”.

An appetite for particular foods can be significant. This is apparent from comments that participants including Danny and Lucy make. To exemplify, Danny comments on grazing on particular foods, whereby food is consumed repetitively over a time period. He says:

“I was just gradually picking at stuff during the day and it’s very easy to just think ‘Oh I will have my break and I will have a couple of chocolate biscuits’ and then you do that and realise you have done that 3 times during the day and a couple was actually 5.”

The repeated consumption of particular foods (e.g., biscuits) may be shaped by the properties of the food itself. Danny further mentions the ease for “little things (to be)

added up during the day”, for example. Cultural norms can also influence ones appetite for particular foods. Lucy alludes to certain food choices being affected by her upbringing in a specific location:

“I grew up in America, so I was very much like, cheese is a vegetable”

Carole, meanwhile, brings to attention the significance of planned mealtimes alongside snacking when acknowledging her weight gain. Carole remarks:

“I’d gone from not having breakfast, barely having lunch, eating dinner, to having breakfast with my other half, having elevenses¹¹, having lunch, having afternoonsies, having dinner, and having chocolate oranges and snacks and some crumpets when I feel like it, and a bit of this, and a bit of that. So, one of the big meals and five meals a day plus snacks. I know where it (weight) came from.”

For participants including Carole, food consumption (and subsequently, the constrained capacity to become slimmer) can also be linked with meal preparation and execution of food portion sizes by others within the household. Large portion sizes have the capacity to undermine the pursuit of a slimming body. Carole makes the following connection when acknowledging her “weight isn’t going anywhere” by commenting on her partner and the meals he organises at home:

“He decides the meals. I have no involvement. So generally, I probably eat better than I did when I lived on my own. Although I would argue not necessarily. Because before, I would have a microwave meal and then would have put salad or veg with it to make it look healthy. But the portion sizes were probably much smaller than the man-sized portions he gives me.”

Carole subsequently refers to a specific occasion, which highlights the significance of large portion sizes, as well as the attraction of food which is readily available on ones’ plate. Carole remarks:

¹¹ ‘Elevenses’ is a tradition whereby a drink and snack (e.g. tea and biscuits) is consumed at around eleven o’clock in the morning (Collins English Dictionary, 2020)

“We got a meal, a curry and he bought two mains that come with two rice, then a naan bread, whatever. Well he put my whole main on my plate, and then said to me ‘do you want a bit of mine as well?’. Well I thought he was going to give me a bit of each. I didn’t realise he had actually put my whole thing on my plate, and because it’s there, I think like a lot of people, you just eat it. Whereas it was only when I went in the kitchen and saw my container was empty, and his still had half of it in, and he’d only had a third of his...I was like... ‘holy, no”.

Other participants help illuminate the limited significance of food guidelines. As already briefly alluded to, Rose is at the time of our interview, a manager of a health and well-being service. Her food choices are suggestive, nonetheless, that any awareness of typical discourses surrounding food has the diminished capacity to be affective. This is particularly apparent when Rose consumes food and drink that she perceives as “not the way to go” whilst “writing a health and well-being report”, or when “eating crap, being that couch potato, coming in, sitting there...can’t be arsed cooking”.

The diminished capacity for particular discourses surrounding food is further evident by participants such as Lisa. At the time of our interview, Lisa works in midwifery. She indicates being knowledgeable of ideas regarding “eating more balanced meals”. Her attention to bodily sensations from working “on her feet all day”, such as feeling “shattered”, nevertheless, alongside the accessibility to food outlets including takeaways, means that the force of convenience can be powerful and override the potential for making other food choices. Others allude to the significance of food outlets also, suggesting their distribution increases the possibility to consume certain foods relative to engaging in other practices such as cooking. Ethan, for instance, refers to eating “all kinds of junk food and takeaways”, whilst Lucy comments on eating “around 5 takeaways a week”.

Insights here largely resonate with some of those offered by Fox et al., (2018), therefore. Here, it is evident that a food choice sub-semblage territorialising the body in a manner which contributes to becoming-bigger or constrains a capacity to become slimmer can, broadly, comprise of food, human appetite, cultural norms, family members, meal preparation practices, and access to convenient food outlets.

6.3.1.2 Moving away from a slimmer body: (Navigating) Accessible Spaces

The aforementioned section establishes that actions regarding food choices can be significant. This section now turns attention towards ways physical spaces can frame activity. Whilst different human and non-human components can assemble and constrain opportunities to do physical activity for some participants, accessible physical spaces are one component that can often remain significant irrespective of other components important to an individual. Ways spaces are navigated, therefore, can also be critical to whether some individuals become territorialised in ways that constrain a body's capacity for becoming-slimmer or for contributing to becoming-bigger.

Participants such as Carole acknowledge previous efforts to move more by entering particular spaces. The gym, for example. Albeit, it is recognised that such efforts fail to help with becoming slimmer. This is due to other affective relations such as physical health conditions, or work demands. Constraints imposed by particular demands is a point resonant with Lisa who acknowledges a lack of time to do things such as go to the gym due to motherhood duties as well as work. Notably, the work space is also particularly relevant to Carole whose weight gain can be attributed to her work space limiting opportunities for movement. Carole is, at the time of our interview, working as a self-employed hairdresser. She turned to mobile hairdressing after a period of bullying at her old workplace and after a subsequent workplace she joined was not a good "fit". Carole explains:

"I've gone from an office job for twenty off years, to working in a salon as an apprentice, and then became, eventually, a stylist, and running around like a headless chicken, to going mobile, and like I said, gaining a stone, suddenly realising that actually, I don't do very much."

Along with working in new confined spaces upon transitioning into a new work assemblage, movement is further restricted when using private transport to move between clients' residences.

"People were saying to me, 'but you're on your feet all the time'. I was thinking, 'Yeah, but I only walk like a square metre around

people's kitchen' (*laughs*) and then get in the car, then drive to the next appointment."

Mental strain from past encounters with bullying also can be enduring, and subsequently restrict Carole's present capacity to move more in different spaces. As evident from several comments, Carole is receptive to embodied sensations produced from experiences of bullying. Carole refers to feeling "mentally battered", for example. She also asserts:

"You feel lethargic, you feel fed up, you're lugging this baggage."

This "baggage" of which, has a "knock-on effect" including a limited interest to "get out of my pyjamas" and move around.

Strains experienced are also affective for other participants such as Fiona. At the time of our interview, Fiona's occupation entails "running a guesthouse". She indicates that the responsibilities of this work alongside other caring responsibilities such as being "a good parent to my son" can be demanding. She acknowledges "working all the time" and having "no outlet" for other activities such as socialising. She makes further comments suggesting an emotional toll of working in hospitality:

"I haven't been very happy at the guesthouse for years."

A link can be made between such strain with Fiona's constrained capacity to become slimmer. Fiona makes comments indicating her belief that weight can be gained when not feeling happy. She also remarks:

"I was overweight and had been trying for a few years to lose weight and I wasn't particularly succeeding because there was no reason to. You know, I didn't feel good in myself."

Fiona is less inclined, therefore, to do things such as "get out of the house" and connect with outdoor spaces whereby she could partake in new bodily practices. Her limited efforts to lose weight can also be linked with a lack of supportive relations. Fiona comments on the necessity of having support from others such as family, something she "didn't find" herself.

Specific physical bodily conditions can also constrain an individuals' capacity to do physical activity. In such instances, the significance of space whereby (limited) movement occurs becomes further evident. Particularly pertinent here is remarks from participants including Danny, who also is affected by food choices, as evident in the prior section (section 6.3.1.2). Danny refers to different occasions whereby navigating space is constrained. The first concerns Danny's body becoming territorialised by a disability. Danny "used to be really really active" and in the past "could essentially physically do whatever" such as "walking all over the place". However, now identifying as "disabled" due to having arthritis, he remains affected by activity becoming "limited for quite a long time". This issue is not easily alleviated when health professionals offer limited guidance regarding realistic exercises that can be accomplished to help mitigate weight gain. Danny remarks:

"I use a walking stick most of the time, and there is a tendency, if you progress to that stage, especially already before 30, they (doctors) kind of give up a bit. So, they don't give you so much advice on "here this is how you can go be more active or here this is how you can go workout". It is kind of, you know, be on a good diet so you don't get too fat. Take your vitamins and put up with it."

The second occasion regards physical illness. Danny draws attention to his confinement to restricted spaces due to feeling unwell:

"I had another period where I was off work due to migraines and my health just went completely to put and my weight went absolutely through the roof because I was doing nothing but sitting at home."

6.3.1.3 An interest in slimming: Bigger body concerns flare

An interest in transitioning towards becoming slimmer can emerge when concerns about body image flare. Concerns can flare when certain ideals are perceived to be significant, and in turn become more engaged with. Male participants including Ethan and Danny signal this when referring to ways they anticipate their bodies to be better off if coming closer to embodying certain bodily ideals. Ethan, for example, perceives his body as one that would benefit from becoming slimmer when engaging with the view that certain bodies are ideal when slimmer, fit into fashionable clothes promoted

by popular retail outlets, and in turn enable the management of better impressions at work. Ethan remarks:

"I have got a job starting in October in London, and it is for one of those organisations – I won't say what it is, but it's one of those organisations where it would be better if I was slimmer, could wear the trendy clothing that you can get from Topshop, that would probably increase my chances of progression."

Ethan does further remark that such ideals are not "necessarily that real" but perhaps are imagined to "trick" him into making desirable changes by a given "deadline". However, whether "real" or more imagined, it cannot be overlooked that Ethan's anticipation of a body faring better if becoming slimmer and wearing fashionable clothes is ignited because of an upcoming opportunity in an industry whereby certain norms may prevail. Furthermore, because connections with others inform his understanding that "people do make value judgements based on appearances". Notably, such an understanding resonates with literature suggesting individuals can be judged unfavourably when not meeting weight norms (Askegaard et al., 2014). A bigger weight holds the potential to constrain employment prospects (Solovay, 2000).

Danny, meanwhile, makes remarks which indicate that to some extent, it is connections with other bodies, such as those visible in the media, that prompt an interest in becoming slimmer, be in more "reasonable shape" and in turn feel less "miserable". He comments:

"It's sort of how you look – which I know, is shallow, but there is definitely things you compare to...I know it's always been something where there is more pressure on women but it's sort of creeping over to men now, with all the actors and stuff like that."

As the literature review alludes (see chapter 3, section 3.3.2), the ideal for men is often a muscular body (Featherstone, 2010). Indeed, as others acknowledge, muscles can signify traits such as strength. This is linked to broader relations of gender (Bell and McNaughton, 2007). Ethan does also engage with these broader gender relations by also wanting to become more "muscular" after becoming more attentive to his expanding belly. The attention here by male participants towards losing weight to fare better is particularly interesting. In various literature, attention is

often given more to females losing weight and pursuing a slimmer body. Only more recently is greater attention being given to pressures men face concerning embodying other ideals (Bell and McNaughton, 2007; Sanders, 2017).

Less surprisingly, concerns regarding body image often flare for several female participants. For Lucy, digital images visible on social media evoke concern. Lucy makes the following remarks indicating it is not only the content of the photo that is significant, but also its general visibility on social media:

“My group of friends and I walked up Mount Snowden and there is a picture of me from the bottom of the mountain and I just look like a balloon”

“I just wasn’t happy with the photo. It was one of those photos that got put up on Facebook and I kind of wanted to un-tag myself.”

From such remarks it is evident that the photo produces affections. The photo prompts an unfavourable appraisal from Lucy when attention is directed towards the image establishing her body as looking like a “balloon”. The photo content also produces a sense of dissatisfaction and a wish to remove the visibility of such body from the potential gaze of others. For Lucy, this photo is affective since it is a “kickstart” to “beat” what her body has become and make changes. Lucy explains that she wants to “get back into being happy” and in turn expand her capacity to do other things perceived to be normal such as “be happy with somebody else”. Consequently, she focuses on creating a new dress size goal.

Though Lucy asserts the photo uploaded online “kickstarted everything”, Lucy indicates there have been other occasions when concerns about a bigger body have flared, evoking discomfort and consequently limiting what her body can do. Lucy explains being unable to enjoy days out or enjoy dressing experiences, for example. Lucy makes the following remarks about when shopping and trying to fit into particular clothes:

“I didn’t enjoy shopping, I didn’t enjoy going out, dressing up and things, because I felt like I was fat.”

“I got to my biggest size which was a size 20, which for me is like, ‘oh my god, I can’t believe I’m ever like this, like shopping in the plus-size section.”

Notably, comments by Lucy resonate strongly with remarks made by other participants including Lisa. For Lisa, the fit of clothes produces a sense of inadequacy and is enough to spark change. Lisa remarks:

“When I couldn’t fit into my size 18 clothes anymore, I thought, oh god, I need to do something about this.”

How individuals connect with and come to perceive their body through engaging with other non-human components such as clothing spaces, clothes size labels, and clothes themselves, can be significant, therefore, for increasing ones’ capacity to want to become slimmer.

Participants such as Carole make remarks signalling other ways that clothes matter. For Carole, concerns regarding the size of her body flare when her clothes “suddenly don’t fit”. Consequently, there is a newfound interest in becoming slimmer. This is not necessarily in order to embody a more ideal body size. By connecting with abstract numbers such as weight measurements, Carole understands her body as not relatively as “big” anyway. She also challenges dominant gendered ideals such as thinness promoted within media images she engages with. She makes remarks suggesting she does not invest in normative ideals regarding thinner physical bodies and instead accepts alternate bodies:

“I buy a lot of fashion magazines, and obviously you get that whole thing about “they make women paranoid... I do not associate being skinny with being glamorous...I don’t worry about it. I don’t look at other people and think ‘oh well I am fitter and thinner than that person. Because, actually, a lot of people I see that have curves, I think they look fabulous. Because they look confident.”

Instead, Carole is attracted by the qualities of the clothes she purchases, and which have a strong presence in her home. She yearns to slim somewhat so she can wear them and better appreciate them:

“So, I’m addicted to buying clothes off eBay, erm, with labels, cheap, nice, great, get some bargains. Problem is, I bought loads of bargains for a holiday and then in the first month, gained 10 pounds, so these beautiful clothes that are now sat in a box waiting for me to get in them don’t fit.”

The above insights demonstrate there are differences between individuals regarding what contributes to them wanting to become slimmer. Nevertheless, what can be established is affective components contributing to individuals’ wanting to become slimmer when connected with, can, broadly, include a persons’ existing attributes (such as physical appearance), other people, clothes, and industries. This is because when individuals engage with such components, attention towards other things significant to well-being can arise. This includes adhering to particular fashion and beauty ideals but also doing normal things that others do (such as progress in ones’ career, have successful relationships), feel happier, or appreciate items bought.

What can also contribute towards de-territorialising from a bigger body and becoming slimmer, however, is the urge to avoid pre-empted problems regarding physical health. This can occur when recognising, and being affected by other bodies in ill-health, or when anticipating ones’ own body experiencing ill-health. Moreover, when engaging with particular ideas (such as those surrounding public health) regarding taking responsibility to live well.

An event described by Rose exemplifies this. Rose only becomes committed to making changes to help lose weight after the unexpected illness of a “great friend” she perceives to live a conventionally healthy lifestyle (e.g. being physically active) shocks her. The shock from their illness sparks her to be more reflective about her own lifestyle (e.g. carelessly consuming foods deemed to be unhealthy, being sedentary) and to manifest thoughts that typically can arise when aware of discourses regarding obesity as a major risk or when affected by discursive regimes damning fatter and overweight bodies (as chapter 3 alludes). This subsequently encourages Rose:

“A colleague of mine who’s become a great friend, she’s about 15 years older than me and very active, but diagnosed with breast cancer, and it completely took me by surprise. Erm, I work with her, sat with her every day, and really positive person, really healthy, 4 kids, and I

always, I'd been overweight...And it literally was, I can remember the day, I can remember the time, and every week I was like I was gonna lose weight this week. I was gonna do something. And I woke up one day like right "(name) has breast cancer, what if you get cancer and it's because you are overweight and not doing anything? How would you blame yourself? What would you think about yourself?" and in the past I always thought it to be healthy to lose weight. But this was different. This was so I wouldn't have, I wouldn't get a disease. Or if I did, it's not through my own laziness and neglect of myself... I think that, just that "what would I do if I got cancer and they turned around and said it's because you're obese?". It was just that, the thought."

As the extract above illustrates, Rose experiences anxiety about not caring for herself after becoming attentive towards her friends' diagnosis. She becomes pre-emptive, imagining a future undesirable body whereby stigmas surrounding self-blame and self-destruction for "laziness" and "neglect" of ones' body can be attached. She makes connections with time, by referring to previous thoughts about losing weight and counteracting this with a defining moment whereby she will not only negotiate her lifestyle differently but commit to breaking existing habits to avoid being territorialised by a fearful illness which would evoke guilty and regretful feelings. Her excess weight suddenly comes to matter more as the imagined future becomes experienced in the present. Resonating with participants focused upon within studies such as Zivkovic et al's., (2018) study regarding productive capacities of fat, there is a sense of becoming a "walking time bomb" (ibid, p.4) if action is not taken.

6.3.1.4 (Tensions) Working towards becoming-slimmer

A slimming body is associated with concentrating more upon relations with food (Fox, 2002). As recognised in some existing CCT literature evident within chapter 3 of the literature review (section 3.3.2), some individuals may turn to slimming clubs in an attempt to transform relations with food and lose weight. Moisiu and Beruchashvili (2010) explain how individuals (typically female) can find spiritual and therapeutic support when telling others about ones' relationship with food, when participating in weigh-ins, and when sharing achievements. Fox et al., (2018) also find that on occasion individuals may turn to slimming clubs and engage with rigid guidelines regarding what can and cannot be consumed, albeit guidelines may strip away

pleasures from food, and may not be entirely adhered to in the interest of convenience or maintaining the enjoyment of food.

Only some participants focused upon here become interested in attaining a slimming body are explicit about engaging with different resources provided by slimming clubs. Ethan, for example, refers to not fully signing up to a slimming club but engaging with “basic plans” and quantifying food consumed based on “syns”. Fiona, meanwhile, mentions attending a slimming club, engaging with a “coach” and engaging with a points-based system. Lucy also has experience attending a slimming club, yet when Lucy draws upon her experience it becomes clear that varied affects can be produced within this sub-assemblage. Consequently, slimming clubs can be viewed as neither simply a supportive and necessary companion for becoming-slimmer, as apparent within the work of Moisio and Beruchashvili (2010); nor a solution that can create tensions and lead to small acts of resistance as per insights in Fox et al’s., (2018) study. Contingent upon whether efforts to slim down are successful, engaging with slimming clubs can both be favourable or unfavourable, as well as counter-productive. Lucy makes comments reflecting this. She draws attention towards embodied sensations including an “endorphin rush” experienced when being applauded for weight loss. She also draws attention towards pressures felt. Lucy explains:

“It was awesome. You know, when you lose a bit of weight, they clap for you. You feel amazing, you get that endorphin rush. But then, you know, there would be a week where, oh no, you have put on 5 pounds, and it was that guilt that I felt more. I felt more guilty with Slimming World. Because you know, with Slimming World, the way it works is you weigh in every week and if you put on weight, your instructor or whatever does not get as big of a bonus. So, the way you are losing weight or putting on weight affects their job, and I found that quite stressful. Which actually made me stress eat, which made me put on weight.”

Though Lucy suggests the scope to be judged by others here, less favourable feelings including “guilt” emerge when thinking more so about the organisational structure of the slimming club and the financial consequences (i.e. lower bonus) for leaders as a result of own efforts to lose weight. This is relative to guilt emerging when not adhering more closely to other molar forms of organisation (Deleuze and Guattari,

1987). This includes when not complying with food guidelines and meeting goals as is typically found in studies (e.g. Moisiu and Beruchashvili, 2010).

Notably, Lucy's consequent weight gain resulting from stress eating also demonstrates that committing to lifestyle changes and working towards goals such as becoming-slimmer is not a straightforward, linear process, as is typically advocated (Coleman, 2013). Instead, there can be transitions between moving away from a slimming body as less disciplined relations with food arise, and becoming-slimmer. Notably, Lucy stops participating in this form of slimming regimen after 3 months.

For other participants, engaging with a Slimming Club cannot be considered feasible at all. Carole, for instance, anticipates tensions resulting from the way slimming clubs operate. In addition to associating them with a "shackle", Carole remarks:

"I've got friends who go to Slimming World and if I was paying somebody to tell me I'd gained a pound, that would depress the daylight out of me"

"You're paying someone to make you feel guilty."

6.3.2 Resolving

This section focuses on participants including Shauna, a retiree, and Danny, introduced in section 6.3.1. Furthermore, this section focuses on Hugo, a senior manager within the banking industry; Rita, a University Administrator, and Tina, a self-employed retailer. Alongside a range of occupations, these participants emerge from a diversity of circumstances generally. For example, Tina emerges from a becoming-slimmer assemblage as she has ongoing experience making efforts to lose weight by participating in slimming club weigh-ins and attending slimming club meetings which she finds "motivational". She also has experience engaging with fitness trackers and food apps. Hugo, meanwhile, recognises being physically active by already achieving more than what is advised by institutional bodies (indicating attempts to boost and become fitter). Other participants including Rita, Danny and Shauna, however, experience limited movement. Notably, both Danny and Shauna have experiences of becoming territorialised by their disabilities and gaining weight. As mentioned in section 6.3.1.2, Danny's physical activity becomes limited due to

having Arthritis. Shauna, meanwhile, identifies as “disabled from birth” and her capacity to move more or less is constituted largely by her wheelchair. Shauna becomes familiar with not getting involved in activities and with making excuses to not be physically active. Limited movement due to Shauna’s disability and mindset, therefore contributes to gaining weight (reinforcing the scope for limited movement in accessible spaces to contribute towards moving away from a slimming body). Shauna remarks:

“Looking back, I had blown up to 23 stone. Erm, and I just made the excuse of well, I can’t do it because of my hips. I can’t do it because I can’t walk. Or, you know, rather than just trying.”

Notably, Shauna acknowledges that stopping dieting after attempts to diet when feeling “fat” also contributes towards gaining weight (reinforcing the aforementioned theme regarding the significance of relations with food).

Despite differences between them, participants here share commonalities too. They participate in assemblages whereby an interest to resolve – to reorient attention and embark on a course of action – to address and manage specific health issues, in response to calls from others to make changes is produced. To elaborate, participants have experiences whereby their physical health feels under threat. They become increasingly attentive to addressing health issues after consultations with others who are providing valuable resources. The section proceeds by providing an overview of significant connections comprising assemblages which frame individuals’ unique experiences. This is before turning attention towards a common characteristic comprising the surveillance assemblages that participants emerge from whereby attention is drawn towards ill-health and towards making changes to address ill-health. That is, shared understandings between oneself and other sources of support such as health professional and/or family.

Participant	What frames a body with physical health issues	What facilitates an interest in modifying lifestyle
Shauna	Limited mobility – wheelchair — mindset towards exercise Failed dieting strategies - food – shops	Hip operation – advice and recommendations from a doctor –targets - referral system – support worker – support book Niece – weight measurements – discourses
Tina	Arthritis – diagnosis – weight gain – mindset	Advice from doctor – biomedical discourses
Hugo	Workplace health check – high cholesterol - medication	Diagnosis - beliefs about health – discourses
Rita	Limited activity – type 2 diabetes diagnosis - health professional	Advice from health professional –discourses

Table 6.3 Transitioning towards wanting to address health issues

6.3.2.1 *The significance of shared understandings emerging through encounters with others*

As aforementioned, several participants refer to experiences with others which lead them to understand their bodies as encountering a problematic condition and whereby a shared sentiment is to be empowered and take action. Hugo, for example, emerges from a workplace wellness assemblage whereby connecting with, and engaging with, a range of components encourages him to work further towards new ways of becoming-fitter. Hugo explains how institutional norms at his workplace are a “strong influence”. He draws upon his experience whereby a health check, offered as part of a wider package provided to employees, transforms his understanding of his body as one with a “health problem”. The health check, which measures weight and cholesterol, and which can be linked with a wider biomedical framework depicting what is conventionally healthy or less so, signals to him that his cholesterol is “high”. He therefore invests in further offerings from his workplace. He explains that his workplace advocates logical solutions for addressing problems which in turn encourage the adoption of a “healthier approach” in life. This includes the provision of “discounted Fitbits”, the encouragement of “workplace challenges” and providing flexible access to the workplace gym. The gym was something Hugo was already becoming more “receptive” to, after joining a new team at work whereby everyone “had a very health-conscious sort of approach”.

Participants including Shauna, Tina, and Rita, meanwhile, emerge from healthcare assemblages whereby consultations with health professionals heighten attention towards a problem and shape to some extent how one cultivates lifestyle changes. Rita recognises she is often sedentary when her diagnosis of type 2 diabetes is asserted to her. She becomes motivated to make changes when a nurse advises that she “needs to move around a lot more”. This advice corresponds with the information presented by wider organisations. For example, Diabetes UK (2018) highlights the importance of being more active and eating nutritious foods to help prevent complications such as retinopathy, foot problems, and nerve damage. Similarly, Tina is inclined to try to move more when becoming aware that she has arthritis and understanding she “has got to lose the weight”. This reinforces ideas advocated by institutions such as the Arthritis Foundation (2019) who endorse exercise for maintaining the strength of muscles around affected joints to help support and protect against the condition. Tina says:

“I have got to move, even though the bone is grinding and all that, because you have got to strengthen the muscles, and it also strengthens the bones.”

Shauna, who notably has also previously tried to lose weight (albeit efforts are intermittent, reinforcing the scope for tensions) exercises a new commitment to becoming-slimmer. She makes a connection between “dramatically trying to lose weight” and well-being, after conversations with health professionals alert her to the limits her weight is imposing on her capacity to have hip surgery. Furthermore, after accepting (albeit with some scepticism) advice and recommendations regarding what her body weight could and should be. Shauna explains:

“I needed an operation, I needed a hip replacement. So, when I went to the consultant, the consultant said: ‘you can have the hip replacement’. But when I saw (name), they said: ‘You can’t have the hip replacement because you are too fat’. So, it was like, ‘oh, ok then’, So he gave me a target of – and I had been losing weight before that. I had just been dipping and dropping but he gave me a target, I think it was 15 kilos in 12 weeks, which I thought, there was no way I was going to achieve it, but I achieved that.”

Notably, it is through collaborating with a friendly and not “condescending” or “patronising” support worker accessed through a referral by the doctor that Shauna starts achieving a certain measure of weight loss. Shauna refers to the support worker providing valuable material resources as well as helping mutually agree a way of cultivating lifestyle changes. She makes remarks including:

“They gave me the book and original kickstart to sort of look at my life, look at what I was doing and where I wanted to go with things.”

“He’s like, ‘right, ok, what do you want to achieve? How do you want to do it? Let’s get you on that road.’”

Shauna recognises constraints to this form of support, nevertheless, by referring to the “limited time” of intervention programmes and “no continuation” offered once targets are met. Produced for Shauna is a sense of being underwhelmed, particularly

when making further comments regarding there being “no way to keep check on things” and regarding the assumptions made by service providers that “once you have reached your targets, it’s like you are supposed to then have your tools and your way forward”.

Notably, though, Shauna also expresses that additional supportive relations are significant for encouraging her to become slimmer and push the limits of her mobility. Hard-hitting words from her niece (which also convey her niece’s anxieties generated from Shauna’s bodily state) are particularly moving. Her niece heightens attention to the perceived problems with measuring at a particular weight (this itself depicting that family has become a site of surveillance, and numbers derived from objects such as a weighing scale are affective). Shauna explains:

“I just sat there one day and me and my niece were talking and she said “I really am worried about you, you are 46, you are 23 stone, you’re gonna be like 25 stone, and I’m going to lose you before I am ready to lose you”, you know, she says “I know you are disabled and I know you can’t get up and do things and things are difficult but can we not at least just try and do something a little bit more than what you are doing? I am so really really worried about you.”

Danny, meanwhile, generally has mostly relied on “cod liver oil and painkillers”. He becomes committed to initiating change by exercising more and in turn not only pursuing a slimmer body but also addressing his arthritis, when receiving and accepting new advice from health professionals, however. He remarks:

“I had just sort of got the all clear from my doctor to take up exercising.”

6.3.3 Boosting

This section acknowledges participants who can be sufficiently motivated to boost their everyday routines by engaging in practices including leisurely workouts or food decision-making. Insights are drawn from participants expressing an interest in engaging further in more activities, or doing more of the same, to enhance their physical health as well as their capacity to do what they come to feel is purposeful. A

range of occupations span participants. At the time of our interview, participants including Penny, Charlotte, and Megan, work in office-based roles, whilst Andrea, Jessica, and Emilia work in academia which can also entail office-based work. Sally, meanwhile, works as a hairdresser like Carole aforementioned in section 6.3.1. Denise works as a dental nurse, Carla is a mature art student, and Natasha is on maternity leave from teaching.

Notably, some participants here have prior experiences emerging from other assemblages relevant within this chapter. For example, several have emerged from a slimming assemblage. Participants including Penny have made previous efforts to lose weight by engaging with slimming club resources including meal plans categorising food by points and engaging with a tailored food app, for instance. Andrea also has made efforts to lose weight with a food app before, whilst Denise has made some attempts to lose weight with a wearable device. Sally, meanwhile, has experienced losing weight through intermittent fasting.

In addition, some participants express a new interest in becoming-slimmer at the time of our interview, suggesting the potential for individuals to be affected by multiple affective forces at once. Why participants such as Carole are interested in also becoming slimmer has been touched upon already in section 6.3.1 Nevertheless, other comments made by participants enable further insights regarding what contributes towards an interest in becoming slimmer. Natasha, for example, is receptive towards wanting to “initially lose the baby fat” suggesting the appeal of moving closer towards an appearance resembling a pre-pregnancy body. Andrea, meanwhile, is responsive to less favourable feelings produced from weight gained when de-territorialising from a training assemblage comprising her running body tracking with a phone-based running app and preparing for and participating in timed races. Andrea recognises that weight is gained ‘because I sort of stopped running after I did the North Run’ and this “does affect how I feel about myself”. This is particularly in situations such as when becoming “fed up” when not fitting into clothes. She is not necessarily concerned with adhering to particular fashion or beauty ideals but does recognise that she can “feel well when I am a certain size”.

This section proceeds by providing examples of what can facilitate the enactment of particular food decisions and workout practices already contributing favourably to individuals’ lives. Also highlighted is what affects participants in terms of motivating them to want to engage (more) in particular practices such as perceived ‘healthier’

dieting or leisurely physical activity to give a boost to their lives. A further detailed presentation of relevant findings follows.

Participant	What facilitates efforts to do exercise and/or manage diet	What produces further motivation
Penny	Passion for cooking - recipes – social media group Time available – work – outdoor spaces – walking body - husband – weather	Ageing body – hip pains – doctors’ advice - mindset
Charlotte	Gym classes – time available – work – limited transport	Mindset – body – transformation photos
Megan	Outdoor spaces – walking body - time available Diet – health discourses	Mindset – body
Andrea	Work – commute Time available – outdoor spaces	Ageing body – mindset Clothes - weight
Emilia	Gym – gym class – time available	Sedentary activity – work – work space – discourses - mindset
Sally	Exercise DVD – time available - home space - injury Walking body – partner – outdoor spaces 5:2 diet – guidelines - colleagues	Mindset – family
Denise	Exercise class – friends House -family – energy levels Work – access to work - shoes	Work/life demands – access to work – transport costs – ageing body
Grace	Outdoor spaces – walking body	Ageing body – family
Carla	Outdoor spaces – walking body	Mindset – body – weight
Natasha	Outdoor spaces – time available – family	Baby fat – pregnancy – mindset

Table 6.4 Transitioning to a boosting body

6.3.3.1 Attention to boosting: thinking about accomplishing meaningful activities

Only more rarely is it acknowledged that wider signifying discourses can be encouraging, shaping what some individual participants perceive to be meaningful to do. Emilia, for example, who tries to be active but can often be sedentary due to office work, asserts messages circulated by social media and media are “absolutely” influential. It is noted how they heighten attention towards recommendations such as “You should walk 10,000 steps” and towards advice that “if you sit a lot, it is bad for your health”. Such discourses entice her to want to move more. Similarly, participants such as Megan, who identify as reasonably active due to engaging in activities including walking and running, acknowledge discourses associated with 10,000 steps can be encouraging, and evoke a feeling of doing a ‘good thing’ if making further “small changes” such as walking more instead of driving.

More often apparent across participants is attention towards boosting physical activity and becoming-fitter when thinking about the present capacity to do everyday things and when anticipating ones’ future body and its capacity to do meaningful things. This can, at times, be linked with wanting to resist (albeit simultaneously acknowledge) the potential for limits to be imposed as a body ages over time (Fox, 2002). Remarks from participants including Denise make this further apparent:

“I am aware that I am vulnerable unless I am reasonably fit and healthy...I need to be able to do things. To be able to go into town to get something. I have got to be reasonably healthy to walk and carry shopping home if you know what I mean. I am aware I have to be physically in shape to be capable of doing things as I am getting older. I assume I have to watch that.”

Notably, for participants such as Denise, being able to do shopping, or walk to work (without perhaps having to “hobble” or by “dragging” oneself there as per a previous experience) can be meaningful because she is aware other things may not change as Denise ages. For example, Denise has limited connections with transport as she “can’t drive” due to never having learned. She also resists spending money on public transport. She is therefore familiar with navigating many places “on foot”. Denise further remarks:

“I have to do things to get around I suppose. I can’t just go ‘oh I will get in the car’, and the bus is really expensive.”

Andrea, meanwhile, does somewhat take “on board” government messages regarding “being active day to day in life” (reinforcing the significance of discourses) but also makes a connection between her age and changes when being more, or less, active and fit. She remarks:

“Because I am 51 now, if I am not active, I notice that, you know, I suppose it then just affects your day to day life. You don’t feel as fit and healthy. So, I suppose health is just being able to carry on and do my day to day life.”

Sometimes connections between an ageing body and keeping fit to spend time doing things with family members are also made. Sally remarks:

“Obviously I am getting older and I’ve got three grandchildren, so I want to be able to be fit for them and do things with them.”

Similarly, Grace comments:

“I am coming up to 45 and I just want to keep myself fit and I’ve got grand-children and I just think it’s more important to keep myself fit so I can be active with them.”

For Penny, becoming-fitter is meaningful for reasons including not only enjoying keeping active and “on the go” but for avoiding potential future physical problems. Penny remarks:

“I did get pains in my hip, and it just started as wear and tear...It’s not really really painful, it’s just a dull ache, and it’s just old age. Again, it’s another thing I said about. One of the motivations is I want to keep fit because I don’t want to be in a position where I’m suffering for it in later life.”

Carole, on the other hand, becomes attentive to ways of transforming her mental well-being. As section 6.3.1.2 acknowledges, Carole has “baggage” from previous encounters including bullying. She also experiences lethargy, which, notably, she feels having excess pounds also contributes to. She shows signs of affective attention (McLeod, 2017), however, as she is prompted to mobilise against these affects, transform her habits, and open oneself up to new connections. She remarks:

“It kind of got my goat enough, that I thought, ‘right, well let’s tackle all the things that aren’t working, so staying in bed on my day off, or just sitting in the house, or not doing anything. Not seeing anybody, not going anywhere, and not intentionally not doing anything, but just being so tired, that I don’t want to... I just thought, ‘no, come on, get a grip.”

6.3.3.2 *Becoming-fitter: Navigating (accessible) spaces*

Contra to participants whereby limited effort is made to move in particular spaces, several participants here interested in boosting make clear attempts to move more in spaces accessible to them. Whether this be working out at home when injured, as is the case for Sally, for example, or going to the gym and maybe attending classes, as is the case for participants including Emilia and Charlotte, respectively. Alternatively, participants may exert efforts to exercise outdoors. Natasha, for example, has a distaste towards the gym. She also finds the gym less accessible than exercising outdoors due to other responsibilities. She makes remarks such as the following which are relevant to why she is more interested in “going for walks”

“Part and parcel of not really being able to go to the gym, because going to the gym means I’ve got to put him in childcare, and it just all is expenses.”

Whatever spaces participants navigate, various ways their well-being can be enhanced are apparent. Charlotte, for example, who wants to “improve my fitness levels” feels she has “achieved something” when partaking in workouts such as cardio classes. Denise, meanwhile, explains that a circuit class she attends during Wintertime is “fun”. It further enables her to meet people, which she enjoys. Penny, meanwhile, appreciates going for a regular “nice long walk” with her husband. The potential for other connections to open up when engaging in particular spaces,

meanwhile, is also evident. As Natasha remarks, various affective resources are folded into the assemblage which enhance well-being. Fresh air, other people, and animals, for instance. She acknowledges appreciating “fresh air”, generally “getting out there” and seeing “people, other people walking dogs, other mums pushing pushchairs, all kind of things”.

6.3.3.3 Making better food decisions: the significance of experiences becoming-slimmer

This section draws upon insights surrounding participants’ actions to make food choices considered to be conventionally healthier. Albeit, attention is also drawn towards the significance of executing food choices which can resemble those enacted when previously participating in a becoming-slimmer assemblage. In doing so, it becomes clearer how prior experiences are significant to ways participants experience boosts.

Participants such as Penny acknowledge eating “relatively healthy”. What constitutes healthy eating for this participant is comparable to food relations like vegetables and extra lean meats mentioned by scholars including Fox et al., (2018). Penny refers to eating “loads of fresh vegetables”, and consuming foods such as “ultra-lean sausages” available from a “really good butcher”. Penny, nevertheless, also has a “tendency to cook from scratch”, reduce “processed stuff”, and weigh carbohydrates. As well as making food choices viewed to be healthier (albeit still enjoying eating out, and foods such as “chocolate” and “wine”), Penny enjoys cooking new meals and seeks to diversify meals. Prior experiences making efforts to become slimmer cannot necessarily be disentangled from ways this is achieved.

Penny is familiar with slimming club resources (reinforcing the earlier theme presented in section 6.3.1.5 concerning the significance of slimming clubs when attempting to transform relations with food and become slimmer). Material content accumulated during this time, of which, is still accessed to compliment meal choices:

“Because I have done Weight Watchers for so long, I’ve kind of got a batch of go-to recipes.”

What is also noteworthy to mention and elaborate upon, however, is Penny starts to invest less in a slimming club meal plan (one which categorises food by points) when new updates to the plan occurred. Despite the meal plan being endorsed by her slimming club coach, it was “no longer working” for her. Because of strict point changes making it less compatible with certain foods desired including “sweets’ and ‘chocolate’ and in turn transforming the experience of monitoring food by points to something more “depressing”, she “kind of fell out with it” (suggesting another tension that can emerge when engaging with slimming club resources). An online community group, which can be interpreted as still disciplining as it channels norms whereby recipes for food steering audience members to food categorised by ‘no points’ can be shared was discovered, however. This was after recommendations of alternate plans by her coach and after searching online. She first connected and engaged with this group upon returning from a holiday in Portugal during which time she enjoyed “full fat cheese” and “lots of wine”, which in turn prompted her to feel bigger, enabling weight to “creep up” (reinforcing the theme regarding less disciplined food relations contributing to a move away from a slimming body).

Penny recognises the group site can be a “good place to go” (if enjoying cooking, as otherwise, it could be a “nightmare” trying to adhere to no point meals), as members are supportive of one another’s weight loss journeys, members share “tips” and some “enthusiastically” share recipes through means including spending time filming themselves cooking with their phone (indicating other significant affective human and non-humans constructing weight loss efforts and that can be included in a becoming-slimmer assemblage). Nevertheless, because Penny is now more content with her weight relative to previously, the group content primarily directed towards weight loss goals becomes re-territorialised as inspirational content. To elaborate, knowledge gained from previous relations with group content – in particular, knowledge that the group is ‘really really good for recipes” and fits in “well” with her lifestyle compliments Penny’s genuine enjoyment for cooking perceivably healthy meals. Penny is mobilised to continue navigating group content in a loose explorative manner. Penny makes remarks including:

“I feel a bit of a fraud...because I’m not actually trying to lose weight...as it is, I kind of just go on and have a look around.”

Albeit, this still entails labour, as Penny performs and delegates memory by saving recipes on a computer for future ease of use (Jenkins and Dengri-Knott, 2017):

‘People go on oh I’ve just done this, and I’ve made my own no count trifle’ and things, and it’s like ‘ooh that’s a good idea’, so I do save a lot of the recipes using Facebook so I can go back and do them.”

Penny goes on to further remark that she explores content “every day. Probably 2 or 3 times a day whilst I am on my break or something like that”, suggesting stable connections with members’ posts in this group.

Like Penny, Sally describes her food consumption as healthy. Though suggesting she is not “perfect” as she enjoys foods including “fish and chips” (suggesting these foods are territorialised as ‘bad’), Sally acknowledges she is interested in “eating as healthy as I can”. Sally’s efforts to make better food decisions which will give a boost in some way are also shaped by prior engagements with becoming-slimmer (as well as present efforts to maintain existing weight). How Sally engages with food is different from Penny, nonetheless. Sally has experience engaging with slimming clubs, but also with practising intermittent fasting, and has come to understand a particular diet – the 5:2 diet – a diet whereby generally “2 days a week you are only putting in a limited amount of calories in your body” – as one that has ‘really worked’. This way of engaging with food has subsequently become a “way of life” because it is felt to give a boost in several ways. Not only is it perceived to be more flexible than other dieting regimes she has participated in with regard to what foods can be consumed, but it also is described as giving a boost physically as well as mentally. Sally remarks:

‘You can have what you want”

“It reboots your system”

“I don’t actually have to do it twice a week,
but you feel like you want to do it because
you just feel better.”

Sally also explains how this form of intermittent fasting can be enacted. Sally’s food choices for enacting intermittent fasting can be contingent upon further relations. Time available, for instance, and access to specific food ranges available in supermarkets. Sally remarks:

“I did it yesterday...I had a protein Weetabix for my breakfast with a few blueberries, a bit of milk on. And then we had this vegetable biryani from the good food range in Sainsburys, with 230 calories in. Had that, and then I had scrambled egg when I got home. 2 eggs. So that is fine. So that is 3 meals I had, because people say ‘well what do you eat?’. There is loads that you can eat. And then if I am off work and doing it, I’ll make a little brunch for myself and split it into two meals.”

6.3.4 Training

Becoming interested in extending fitness by partaking in workouts which may be more goal-driven or competitively driven can also be relevant to why individuals, in turn, invest in self-tracking technologies. Several participants emerge from training assemblages which comprise involvement in specific workouts. This section acknowledges such participants. These include Russell, a PhD researcher who starts going to the gym (again) to do weightlifting workouts, Naomi, a PhD researcher who attends a local running club and partakes in cycling, swimming, and running, and Tony, an academic who has reconnected with cycling and is interested in enhancing performance and being competitive. Furthermore, Oliver, a Football Consultant who enjoys being active, and partakes in race events, Jamie, a college admin worker who enjoys running when away from the office and whom also competes in races and is part of a club, and Jeremy, a theatre lighting director who embraces opportunities to run either on his own or with others, including with a running club. Also included here is Danielle, a part-time school worker who enjoys running, does guided HIIT workouts, and partakes in various running-based events.

Participant	What facilitates efforts to do training exercise	What facilitates an interest in training
Russell	Gym space – gym equipment (weights) – advice from brother	Jujitsu competition - mindset – gendered expectations - strength goals – body - male communities – strength discourses
Danielle	Body - guided workouts - mindset – online racing community – race event(s) – outdoor spaces	Photograph – social media - mindset - friend - boot camp programme
Tony	Outdoor spaces (roads) - bike - cycling community	Mindset – aging body - prior experiences cycling - other cyclists - work pressure
Naomi	Run club – peers – race events – indoor and outdoor spaces – mindset – goals	Sedentary job - appetite for food - stressors – active mindset
Jeremy	Social media – run club – race events - outdoor spaces	Photograph – mother – body - daughter – health discourses – prior experience running (races)
Jamie	Run club – outdoor spaces - coach – training programme – race events - goals	Friend – fun race event – prior sport background
Oliver	Mindset - gym – gym equipment (treadmill, bike) - outdoor spaces – weather - marathons – limited money expense – run club	Weight gain – prior sport background –mindset

Table 6.5 Transitioning to a training body

6.3.4.1 Training as a response to prior events

Comparable with participants aforementioned in section 6.3.3, participants emerging from a training assemblage typically have a motivated mindset. Things mentioned more rarely which contribute towards a motivated mindset might include perceived gendered expectations manifesting within fitness assemblages. Russell, for example, desires to become stronger. In addition to being attentive to the potential for there to be “something universally wonderful about being strong and feeling strong”, this is sparked somewhat by a goal set in response to a competition event. Russell explains that he “would like to be physically strong enough to be competitive at Brazilian Ju-Jitsu, in the next 12 months”. Becoming-stronger is also a goal pursued, however, in light of comparisons made between bodies in “communities of men” whereby there are “expectations to be strong” – an occurrence acknowledged by scholars such as Featherstone (2010). For several participants, nonetheless, it is evident that motivation to train can be a response to new affects and capacities generated during previous encounters.

To elaborate, reinforcing the potential for body concerns to flare, Oliver expresses a distaste towards becoming-bigger when dedicating time towards studying and in turn doing less physical activity. He remarks:

“When I was doing the MBA, I put on an awful lot of weight, and it was, you know, it was noticeable, so I decided to do something about it...I was 15 stone, which was dreadful.”

Given such change, which is striking relative to his memories of previously being very active, he becomes interested in running again and in turn preparing for and partaking in running events.

Likewise, Jeremy gains weight when affected by unsettling personal circumstances. Breaking up with his partner, and in turn missing his daughter who has moved abroad, for example. He becomes increasingly attentive towards perceived problems of gaining weight and changing “shape”, however, after observing a photograph. He becomes invested, then, in performing bodywork to not only improve his appearance but also address physical health concerns and portray the role of a responsible parent enacting what is more desirable. He explains:

“I went through a really sort of rough period where I sort of put on a lot of weight because of personal stuff and I saw a photo of myself that my mum sent me from a birthday party and I thought “I need to get myself fit”...I just wanted to get myself into shape, and I have got a 10-year-old daughter so I was thinking of her as well. I can’t be this out of shape, it’s not good for my health...and I want to be a good sort of role model for my daughter.”

He subsequently engages in boosting activity by running. Running is evaluated as being like “therapy”, but as will become evident later, becomes increasingly quantified also.

Similarly, Danielle becomes increasingly vigilant to the momentum of fat (Colls, 2007) “creeping” back on to her body (implicitly suggesting fat is not a passive entity but is instead an active, dynamic, substance that can come and go). Such vigilance is provoked after a photograph posted on *Facebook* after a night out heightens her attention to what her body looks like. Viewing her body in a photo posted online shocks Danielle, making her realise she is closer to becoming the “biggest” she has ever been. This prompts her to want to do something “soon” to feel better. She experiments with a virtual boot camp that her attention is directed towards. This itself leads to becoming increasingly disciplined and manifesting particular ideals, as Danielle engages with guided workouts and conveys online to others such workouts have been done for accountability. Swept away upon noticing new things she can feel or do however, Danielle becomes open to other ways of doing training. Particularly, she notices an enhanced sense of confidence and boost in energy levels. She also seeks new things including joining an online female running community, making friends with “a really supportive bunch of women” and improving her running and trying new activities which she hopes might also inspire her children to want to do things beyond “what the PE department say you have to do”. The following quotes demonstrate:

“I suddenly saw myself getting stronger and fitter and that gave me a huge amount of confidence that I never had before. Even at the park with the kids, I used to just sit and hold their coats, but I was kind of climbing and stuff like that. You know, playing

tag with them around the park, and doing silly things, because I had more energy and more confidence, which is sort of crazy.”

“I have now done some obstacle course races. I’ve done trail running, runs through water, ice, mud, that kind of stuff.”

Tony, meanwhile, becomes interested in boosting his activity by running then cycling more. In light of having “stopped doing anything” and “getting into the erm, middle stages of my life” and remembering being increasingly active when younger, Tony becomes conscious about getting fitter. Regarding deciding to cycle again, Tony explains that such an action was also provoked somewhat by noticing other cyclists engaging competitively. He remarks:

“So some of their friends and some of the parents of my kids’ friends were into cycling. Some of them race, so they cycle competitively. And that probably spurred on my idea to get stuck in and get a bike and have a bash and see what it was like.”

Noteworthy, however, is Tony also becomes concerned with escaping “work pressure” and satisfying a sense of nostalgia he feels – something not particularly mentioned by many other participants. He comments having “missed it” and wanting to ‘return’.

6.3.4.2 *Becoming-trainer: Navigating (accessible) spaces*

Like several participants boosting their activity, various other human and non-human bodies comprise different training assemblages. These might include connections with like-minded others in sports communities and orientations towards future sport events such as marathons to train for, for example. One commonality across participants interested in training is the significance of accessible (and appropriate) spaces that can be navigated for facilitating training efforts. Gyms can be a particularly important space for participants including Russell and Oliver. Notably, for Russell, there is a sense of antagonism towards gym spaces, meaning he feels the need to set goals to (alongside other affective relations such as gendered expectations) encourage him to go to begin with. The gym, for Russell, is a “boring place”. It can be hard to experience enjoyment. Moreover, it can be “busy”.

Nonetheless, the gym is a space whereby there is the availability of particular material resources including weights. Similarly, for Oliver, the availability of particular material resources such as cardio machines can help facilitate running workouts during seasons when preferring to run indoors relative to out. He normally does “a 5k run followed by 5k bike”. Interesting, however, is the scope to notice other connections when exercising in outdoor spaces. Like participants including Natasha, Oliver recognises and appreciates various affective resources including scenery, terrain, and wildlife. He remarks:

“There’s the Wirral way, which is sort of 19km. it’s an ex-railway so it’s quite a flat surface, and it runs through really lovely country...it’s really scenic. Erm, you know, and you will see people on horses and with dogs and it’s quite a nice place to go for runs.”

For others, meanwhile, outdoor spaces navigated can include local streets and local landmarks or running club track.

6.3.5 Experimenting

Though less common across participants, it is evident that some do not necessarily have a predominant interest in channelling energy into behaviour that is more disciplining or centred around ideals including productivity. Instead there is a greater orientation towards experimenting. Experimenting is described here as a desire to push boundaries and engage in particular practices (such as doing physical activity, consuming foods) in ways which are only somewhat familiar. Participants focused upon in this section include Joanna, and Skyler. Both have an academic research background. Joanna is ‘already doing some research on self-tracking’ elsewhere. Meanwhile, Skyler engages with health-related research.

Participant	What is relevant prior to an interest in exploring	What facilitates an interest in exploring
Joanna	Internal cues - body – food - health professionals – food discourses - dietary regimes – calorie guidelines - family	Mindset – internal cues – food – mainstream technology
Skyler	Work project – prison setting – surveillance norms	Mindset – interest in technology – prior experiences tracking with traditional methods (pen and paper)

Table 6.6 Transitioning towards an experimenting body

6.3.5.1 A new exploratory mindset arises from prior experiences with surveillance technologies

Though both participants have very different backgrounds, a commonality between them is that they become interested in exploring with self-tracking technologies when exposed to other surveillance practices entailing tracking. For Joanna, there is a sense of wanting to extend ways of relating to food, albeit, in new ways deemed by others as “pathological”. That is, quantification with a food app, for example, is judged by others as not necessarily something to be condoned. For Joanna, wanting to extend ways of relating to food is still linked with her prior experiences emerging from an eating disorder treatment assemblage. This assemblage comprises of connections including, albeit, not limited to, her body and own internal cues, food, health professionals, meal plans endorsed during clinical treatment and parental support after clinical treatment.

To elaborate, Joanna explains that during treatment, “everything was calorie counted” and numbers would be re-adjusted to ensure individuals’ unique calorie needs were met to “achieve weight gain.” This draws Joanna’s attention to ways one can engage in “experimentation” and “hijack” the system, therefore. She further remarks:

“I got a real sense that you could play with these numbers and it would kind of play with the outcome.”

Upon returning home to continue her recovery and over time gaining more independence by following meal plans, Joanna becomes familiar with the “structure” of calorie-counting and her capacity to imagine not relating to food in this way is limited. She explains that with limited internal cues regarding food and after years of ‘essentially tracking everything religiously, you can’t really switch off that lens’. Upon no longer needing to track to prevent relapse, then, contemplating tracking with a food app for general health and well-being becomes associated with wanting to maintain some form of structure. Simultaneously, however, there is a sense of adopting a “shift in scenery”.

Skyler, meanwhile, who expresses an interest in becoming-fitter also, is eager to embark on what she describes as an auto-ethnographic” project. She explains becoming interested in seeing what happens when opening oneself up to self-tracking devices associated with health. Her auto-ethnographic journey arises after doing first-hand observational work in other contexts such as prisons and upon thinking about ways self-tracking technologies associated with health and fitness may differ relative to other surveillance technologies typically imposed. Skyler remarks:

“I guess I was just interested in the experiences of how does it actually feel to put everything into a device... I suppose I was just throwing myself in the deep end, like, right, I am going to use all these devices and forced tracking just to see how it felt.”

6.4 INVESTING IN SELF-TRACKING OBJECTS

Self-tracking objects become significant for participants aforementioned. This section now directs attention towards what encourages participants to invest in self-tracking. Some participants make remarks which directly indicate the significance of investing in self-tracking to address particular interests. Andrea, interested somewhat in slimming, is attentive to keeping “an eye on food intake” and believes tracking food is necessary for ensuring “discipline” and avoiding temptation of particular foodstuffs such as biscuits which are re-territorialised as ‘bad’. Participants doing running activities, meanwhile, become interested in data given its perceived capacity to help with addressing goals. Oliver, for instance, is interested in consulting pace and heart rate measurements, and recording miles and tracking personal bests for reasons including to ensure he isn’t “over-doing it too often” and so that he can “compare

training weeks and plan for future". Danielle, meanwhile, who "asked for a Garmin for Christmas" after she "got quite good at running" comments:

"If you are running with a specific goal in mind, then obviously you need it to help you achieve that."

Nonetheless, interesting observations can also be made regarding several other human and/or non-human bodies also contributing to how participants invest in self-tracking. This section now directs attention towards drawing upon several insights.

6.4.1 (Limited/Greater) Attention towards the (material) capacities of self-tracking technology

Affects and capacities generated cannot be pre-determined or known in advance as they emerge when interactions are established and when assemblages become functional (Deleuze and Guattari, 1987; Parr, 2020). Perhaps it is no surprise, then, that some participants have limited capacity to contemplate ways interacting with self-tracking hardware or software might generate meaningful changes that can further be constitutive of self-expansion (Hoffman and Novak, 2018). Fiona, for example, has limited perceptions about how a *Fitbit* device can produce new capacities. The device is originally viewed as "just a pedometer" or "extra", providing figures that can be viewed "for a laugh". Similarly, Shauna has few expectations about what interacting with a *Fitbit* device can do. She explains that she had limited knowledge about them and initially thought "what a load of rubbish". Natasha, meanwhile, initially is "reluctant" to get a *Fitbit*. She questions whether such a device is a "gimmick" (a concern observed in some online news source data also). For participants including Fiona, it is recommendations from others (e.g., Weight Watchers coach), which encourages her to interact with a device. For Shauna, meanwhile, a device is gifted. For Natasha, her interaction with such technology becomes spurred on by a curiosity to view her activity. This itself suggests (at least implicitly) an enhanced openness to the potential capacity for self-tracking technology to present relevant information about bodily movement. Natasha comments:

"I was curious like, when I got to the park, how many steps that was. When I got to that place, how far I got, when I got to that place, how far I got."

Such comments resemble strongly those from others including Andrea, who anticipates that tracking can motivate more movement and quench a curiosity for data.

Notably, attention towards the material capacities of technology is less limited for others, who may be able to anticipate opportunities for self-expansion (Hoffman and Novak, 2018) if connecting with self-tracking objects. Enabled by the web, participants including Tony acknowledge conducting extensive research online to learn about what self-tracking devices can do. Tony, in particular, is attentive to finding a device which can enhance his cycling experience by capturing data and enabling him to “compare my progress across time but also my performance in respect to what other people were doing.” Others, similarly, invest in self-tracking objects when learning of, or aware of, material capacities which accommodate their new interests. Particular features including the ability to adjust goals as offered by a *Fitbit* device are particularly appealing for Danny, for example, who is conscious of moving towards manageable goals bearing in mind he is affected by Arthritis. Similarly, Tina is attracted by a Garmin device given its waterproof functionality which means tracking “weight-bearing” activities like swimming is achievable. For Lisa, meanwhile, there are, like others aforementioned, limited expectations. Nevertheless, the potential to be involved in challenges with others which can provoke her “competitive spirit” is appealing and perceived to be of greater “benefit” for encouraging movement and becoming closer to a fitter, slimming body.

Noteworthy is that it is rarer for participants to anticipate new capacities from connecting with self-tracking objects but still express scepticism regarding self-tracking. Carole, for instance, perceives a *Fitbit* device as having the potential to help with “ascertaining how little I am doing” and giving a “kick” to do more. Nevertheless, she also expresses that she does not want tracking to become overly intrusive and wants the technology to be a “prod” rather than a “shackle”.

6.4.2 Other self-tracking bodies

Often, attention towards self-tracking objects and what they (potentially) can do is heightened somewhat when noticing others with self-tracking devices. Likewise, attention is heightened when engaging in conversations whereby self-trackers

express the capacities of such technologies through gestures including showing devices or data or through conversing. This is evident from remarks made by further participants attentive to boosting activity. This includes remarks from Sally and Penny, respectively:

“I was interested, more than anything, to see how many steps I did, because I kept getting clients in with them on...and erm, my friend came to stay with me the other weekend and she had the Fitbit, and I wouldn't have known which one to get to be honest, I haven't got a clue...and she had the Fitbit Charge 2, and erm, she showed me, and said it sort of really motivates her.” (Sally)

“We went on a walking holiday...and there was a woman on this holiday and she was the first person I ever saw with a Fitbit. And she was like, oh we've done so many steps, and the one she got did the floors, you know how many flights of stairs you'd done. And erm, when we came back, that was when we first got them.... we saw this woman with one and we both thought, yeah let's give it a go.”

The capacity to be affected by other self-trackers is evident by others attentive to doing other physical activity. As aforementioned in section 6.4.1, Tony conducts research online to learn more about the proposed capacities of self-tracking objects. This is notably only after his curiosity towards self-tracking becomes piqued. Upon returning to cycling, Tony realises self-tracking technologies are worn by, and commonly discussed among, cyclists who express what data can do. Such that the lure of the new consumption practice becomes too tempting to ignore. He makes remarks including:

“It just became inevitable that I would turn to fitness tracker devices of one kind or another because pretty much everyone who is into cycling has them...every conversation I had with people into cycling turn to Garmin, turn to Strava, you know, times, averages, heart rates, not so much calories burnt, but occasionally. So yeah, I think it was inevitable that I would also get hold of one because it seemed part and parcel of cycling.”

Additionally, participants such as Jeremy become attentive towards what self-tracking can do when noticing runners sharing photos and data online. Jeremy is drawn into

the affective atmosphere of a particular online community whereby being social, supportive, and sharing experiences is encouraged (Lupton, 2017b), and anticipates that turning to self-tracking practices can facilitate a sense of inclusion.

He comments:

“I think seeing everybody else wearing them, especially on UKRunChat and everybody is taking pictures of their watches or sharing data and I didn’t have that. I suppose I wanted to be like everybody else and have a tracker watch.”

For other participants like Danny aforementioned, meanwhile, an awareness of the opportunities afforded by *Fitbit* to adjust goals is mediated by friends who have adjusted goals to what is more manageable for accommodating their physical bodily capacities. Likewise, Lisa’s attentiveness to *Fitbit* challenges and their capacity to generate competitiveness is heightened given her knowledge of “quite a few friends” participating in challenges.

6.4.3 Other resources for investing in self-tracking objects

As participants including Danielle illustrate, gift relations can be important. Comments posted online further indicate that gifts from others such as family members (e.g. “daughter”) on particular occasions (e.g., “birthday” or “Christmas”) can be fundamental. This is also apparent from participants including Rita, who acknowledges her daughter saying that she needs to get one and who does give her one. Sometimes, gifting may be significant for individuals not open enough to the possibilities of self-tracking and less willing to spend money. Money to spend on getting self-tracking objects is also crucial for some. Carole, for example, explains that she “didn’t want to spend money” and her “other half bought me one for Christmas” whilst others including Penny acknowledge “you have got to be prepared to spend the money”. Participants such as Danny initially take advantage of a lower-priced device sold in a second-hand shop, further remarking that he anticipated spending the money would help him be ‘committed’. Lisa meanwhile, makes apparent that she deliberately undergoes greater work efforts to afford a *Fitbit*. Lisa remarks:

“I did a bank shift to pay for this because the Fitbit is an expensive piece of equipment, so I consciously went and did an extra shift just to get the Fitbit.”

Participants including Jeremy spend time doing research online and asking friends for advice, meanwhile. This helps him to choose the best “most affordable” device.

6.5 CHAPTER SUMMARY

The findings that this chapter presents are relevant for addressing Research Question 3. Research Question 3 invites a focus on what encourages individuals to start self-tracking. The findings convey that self-tracking is no solo pursuit; a choice made by a rational consumer or self-determined individual. Rather, individuals become responsive to addressing particular issues that become significant when affected by other interactions with human and non-human bodies. New interests mediated cannot be disentangled from subsequently coming to interact with self-tracking hardware and software. This is evident from comments whereby participants make direct links between what they do and their desire for such technology. This is further evident from findings indicative of individuals’ attention to others’ recommendations regarding self-tracking which help to generate meaningful changes. Individuals may also become attentive to and invest in self-tracking objects because of the perceived value of particular affordances given new interests emerging. Self-technologies may also be well intertwined with a culture which participants become a part of (e.g., cycling).

The findings also demonstrate that investing in self-tracking technologies is no simple decision-making process. Rather, it can comprise work including acknowledging others’ recommendations; becoming open to the material capacities of technologies available and the ways they function. Furthermore, it can entail working to afford such technology, or accepting gift relations.

CHAPTER SEVEN: WAYS WELL-BEING EMERGES FROM SELF-TRACKING

7.1 INTRODUCTION

The purpose of this chapter is to articulate ways that participating in a self-tracking assemblage by connecting with devices, apps, and data, produces changes (including new actions, feelings) which inform well-being. This is relevant to Research Objective 3 reiterated in the prior chapter. This is also relevant to research questions 4, 5 and 6.

How do individual's interact with self-tracking technologies and (how) do interactions change across circumstances?

How do individual's interactions with self-tracking technology contribute to ways that well-being can emerge?

How do new well-being possibilities (opened up/concealed/overshadowed) from self-tracking compare with what individuals experience when not self-tracking with particular health/fitness wearable devices and integrated apps, or standalone apps?

The structure of this chapter is as follows: the chapter acknowledges ways work is undertaken towards the successful establishment of a self-tracking assemblage. The chapter then directs attention to ways individuals become increasingly disciplining upon interacting with self-tracking technology. This precedes insights which illuminate alternate possibilities that self-tracking generates. Attention is given throughout to ways changes may be welcome and favourable, or less so. Towards the end of the chapter, attention is directed at ways that self-tracking contributes to well-being as new situations assemble. A summary follows.

7.2 ATTUNEMENT

This section focuses on findings which are relevant to what is articulated here as 'Attunement'. McLeod (2017) uses the term 'attune' when explaining the process of becoming sensitive towards ways human and non-human entities can assemble during the research. It is evident, however, that attuning can also involve becoming open and attentive to the capacities of particular entities within an assemblage to act. Elsewhere, attuning is associated with adjusting to situations including deciding whether to exercise when experiencing bodily discomforts (Phoenix and Bell, 2019).

Here, attuning is a term used to explain some of the labour involved for a self-tracking assemblage between oneself and wearable device(s)/app(s) to be successfully established. It can be linked with early interactions that individuals have once starting tracking. It can also be linked with new ways of interacting with devices and data. Attuning generally entails adjusting and actively orientating oneself towards tracking in a way that is seemingly appropriate and convenient bearing in mind how one can be affected by devices and data interacted with. Simultaneously, attuning can be associated with self-tracking objects becoming responsive to the individual. It is noteworthy that changes generated from tracking can be contingent upon this.

7.2.1 Attuning to tracking: prior experiences are entwined with present approaches

Ways of attuning can have a historical component. This coincides with the view that outcomes of past interactions can shape current and future ones (Hoffman and Novak, 2018). Generally, however, what cannot be disentangled from some of the work involved in attuning is an individuals' familiarity with tracking, their interests produced from relations encountered (as discussed in the prior chapter), and their current circumstances.

A receptiveness to insights regarding ways individuals approach self-tracking makes this evident. Rose, Danny, and Joanna, for example, exert efforts (notably, these efforts diverge from one another) to try to ensure tracking food with a particular app is suitable. Existing knowledge and experiences of relating to food in more disciplined ways shape their efforts. Danny, for example, has previously emerged from a destructive food eating assemblage. He "did reach disorder point" when he was younger. He explains becoming "quite unwell" after "keeping a diary of everything and then trying to cut down, cut down, cut down". He is, therefore, attentive towards adopting a cautious approach towards tracking food with MyFitnessPal to become slimmer.

Danny does not want to avoid food tracking altogether. This is unlike others seeking to stop tracking when perceiving a potentially darker side (Duus, Cooray and Page, 2018) such as quantifying food becoming obsessive if having experiences of disordered eating (see Coffey 2019). Danny crafts careful strategies, nevertheless. He seeks support from friends who can participate in surveillance. Moreover, he is initially quite restrictive (Hoffman and Novak, 2018), limiting his interactions with

MyFitnessPal to try prevent less favourable capacities emerging. This is before extending interactions further with some specific features offered by the app. Danny sets a weekly weight goal to coincide with calorie numbers his app recommends, he “should” try to reach, for instance. The following remarks make this evident:

“I was a bit nervous when I started out, and I talked to my friends and said I was going to trial it for a while, so in a way, I kind of had outside people keeping an eye on me...if I’d done something stupid, if I had started skipping meals, I think they would have called me out on it.”

“I’ve set a low weekly goal, it helps...I think if it was a case of, you know, it allocates me how many calories and I had to come in under that, that would have been a problem. I think that would have put my head in a bad place.”

“Because I was being so careful, what I did at the start was just log my food, I wasn’t actually looking – I didn’t start out with the intention of losing weight right away, because I knew if I did that, it would mess with my head. So, I did first, I think it was 2 weeks, was not try and alter my diet, but just get an idea of what I was actually eating. Because you are not necessarily thinking about it, and especially at home, you can just pick at things.”

This process is not without challenges. Danny acknowledges it being “rough” when first logging food and seeing “a really big number” reflective of his food intake. His determined mindset and imaginative capacity to envision a food plan, however, facilitates a sense of confidence about becoming “able to take charge” and not being inundated by feelings such as “stress”.

Joanna, who gains “all this knowledge about my calorie needs through all this experimentation that had gone on with a lot of clinical supervision” when emerging from an eating disorder treatment assemblage, becomes open to tracking in new ways. She disconnects somewhat from particular recommendations regarding food which wider institutions or technological algorithms advocate. Like Danny, Joanna instead gives greater priority to her present understanding (based upon recent experiences) of what she feels is a personally appropriate way of relating to food. Relative to simply accepting and following calorie limits that apps such as

MyFitnessPal advocate, as others do (Didžiokaitė, Saukko and Greiffenhagen, 2017), Joanna adopts a more experimental approach, whereby she is open to playing with numbers and exploring what happens. The capacity of the app she interacts with to allow goal-setting features to be dismissed helps to enable this. The following remark illustrates this:

“Obviously MyFitnessPal likes to generate numbers for you based on your goals, so I plugged in my stats or whatever and I don’t remember the exact figures, but it basically vastly underestimated the number of calories I need and macronutrients that I need, by just an amount that I knew was not right for me. So again, I was getting really interested in this idea of, kind of, you know, how do we make sense of our own needs against kind of both like, GDA recommendations of 2000 calories a day, or supposedly more personalised ones on MyFitnessPal, and then my own experience of what my body needs. And so, at that point, I just set all the numbers to zero, on MyFitnessPal, you can just take out the goals, and really I just started playing around with what feels best for me. What keeps me feeling good and well.”

Conversely, Rose (who is not familiar with food tracking) is eager to track food in a more disciplining way. This involves accepting the capacities of an app, like participants in other studies (e.g., Didžiokaitė, Saukko and Greiffenhagen, 2017). Rose places her trust in an app she believes will help her achieve new goals. This is upon conducting research, engaging with digital content promoting clear goal-tailored guidelines, and participating in a trial with the app:

“I just spent the whole day, 30th October 2010, I spent the whole day going through food diaries, what weight I should be, what I need to do, and it (*Nutracheck*) showed me: ‘Ok, you are this weight, lose 2 pounds a week and eat this many calories, lose this much fat, you need to do this that and the other’ and I went, ‘that’s it. That’s the one’. I did a trial period.”

Relative to adopting an experimental approach or a trusting approach, Russell also adopts a cautious approach when turning towards tracking physical activity again to better accommodate training workouts targeting strength. Russell is already familiar

with a particular training app (*Stronglifts*). This app includes a recommended weight programme. Memories of his previous experiences with this app inform his new cautious approach. A previous fixation on numbers, for example, leads to learning that this can be detrimental as a fixation on numbers diminishes ones' capacity to be as effective at "listening to your own bodily needs". A tension (coinciding with a theme reinforced later in section 7.3.4), exists which produces less favourable bodily affects such as 'exhaustion". Russell becomes more attentive, therefore, to "trying to exert more control" and invest less in data which the app advocates. This limits the capacities of data components (Hoffman and Novak, 2018) to impact decisions and behaviour (Duus, Cooray and Page, 2018) and is done to try to better track in a way that is more sustainable for helping achieve goals. The following remarks illustrate:

"I will police my use of the app."

"Before my embodied experience was subordinate to the app. So, I would read the numbers on the app and I'd be like 'I feel shit, I can't go on' and I'd read the numbers and I'd be like 'I can't drop the weight, today I am squatting 62.5 and if I don't, then I won't feel good'. Whereas now, it's going to be exactly the other way around."

7.2.2 Attuning to tracking: a receptiveness to ways data can be co-generated

The previous section demonstrates that (how individuals interact with) features enabled by technology can be significant to attuning. There are further ways participants attune, however. This includes adapting to technology and being receptive to ways data can be co-generated.

When tracking food, attuning is typically contingent upon the material capacity for technology engaged with to be accessible enough to record food consumed. Scholars including Epp, Price and Schau (2014) recognise that capacities including accessibility are influenced by the characteristics of a component (e.g., technological object). As is evident within other studies which section 4.3.3 of the literature review acknowledges (e.g., Lupton, 2018b, Lupton, 2019a), food tracking may not always be straightforward. Though infrequent, some participant remarks demonstrate that the process of tracking food can indeed involve tedious work. This can consequently result in food tracking to be a potential not yet realised. Comments from Russell Lisa,

and Fiona exemplify this. Russell explains how he stopped tracking food before because it is “egregiously complicated to calculate how many calories in everything”. After trying to record food, Lisa also evaluates food tracking to be a “faff” and something that “didn’t fit into her lifestyle”. Fiona, meanwhile, tries to record food on her Fitbit app but decides instead to commit to recording food solely with her WeightWatchers app. This is because recording food on different platforms with different metrics becomes time-consuming and over-complicated. Consequently, demotivating. Fiona says:

“Initially when I had the Fitbit I was filling the food in, but Fitbit then, I don’t know what they did, they were working on calories, and because I am with Weightwatchers and we have got points, you get to the stage where you can’t be arsed keeping inputting it. I haven’t got the time to input on two different plans.”

Comparable with further insights from the work of Didžiokaitė, Saukko and Greiffenhagen (2017), several participants tracking food generally experience few problems. The labour required to log food becomes alleviated by an apps’ capacity to automatically do the work of finding specific foods, which makes recording food simple, or, as Lucy comments, make food tracking alongside activity tracking “interactive”. Danny explains that he thought logging food “would be a lot more difficult” as he expected to be “faffing around trying to work things out”. Nevertheless, he finds the process “a lot easier” than expected when discovering he can scan foods. He further remarks:

“It’s so straightforward, because most of the time I can just scan the barcode whenever I am eating or cooking or whatever and it puts it straight in. So I don’t have to do that much work myself. And the information is just there for me.”

Shauna makes comments which reinforce the helpfulness of barcode scanning and search features:

“Once you have built your database up and scanned everything in, it is so easy because all you are doing is you type the first 2 letters of your food in and it comes straight up.”

“I enjoy the freedom, because even if we go out for a meal, it allows you to look for the restaurant that you are going to.”

Though perceiving barcode scanning to be “gimmicky”, Ethan also sometimes engages with barcode scanning, and finds inputting data manually easy. He remarks:

“You can just search for it and type it manually rather than find the camera and scan.”

Tina, who appreciates that barcode scanning makes her app “better”, also expresses the convenience of tracking food digitally relative to tracking with pen and paper. With a displeased tone and using expressive gestures including pointing and flicking through pages of paper, Tina comments:

“They (WeightWatchers) give you one of these (*Tina shows paper booklet for tracking food comprising of space to record food and total points in accordance with her plan*). You log everything like that. And you fill in that. Imagine taking that everywhere and writing everything down every time you have eaten something.”

Noteworthy, however, is that what is most convenient can be contingent on whether other relations encountered in everyday life change. In such instances, there is scope for re-attunement. This is most evident from comments which participants such as Joanna make:

“I just started with foods that were very easy to track or very similar so I could typically predict if the size was similar, a pizza at one place would be similar to pizza in another place and then I would adjust if you know, they used a lot more cheese here, or something like that. But I would kind of track similar items...over time I experimented with different ways of tracking. Sometimes I will track similar items from a supermarket or different restaurant and then sometimes I will do it by ingredients...and then my third method is just to guesstimate or kind of budget 100g of carbs, 40g of fat, 30g of protein and just call it a day. So, I kind of have these different strategies and mostly at the moment that is dictated by convenience for me.”

To commit to activity tracking, meanwhile, can entail having to set up new devices and adjust to ways a device is worn, as points within section 6.2.1 convey. Whether data becomes meaningfully affective can also be contingent on whether desirable goals can be set. Furthermore, this can be contingent on the design of an interface which impacts upon how easy and accessible it is to record data or visualise data.

Some participants including Skyler are relatively less concerned with specific step count goals. Nonetheless, several participants refer to setting goals (and making decisions afresh regarding goals as circumstances change). For some participants (e.g. Carole, Emilia, Rose, and Sally), there is a desire to adhere to the standard step count goal which self-tracking objects and wider institutions advocate. That is, 10,000 steps. Others, meanwhile, deviate from this recommendation. Natasha, for instance, initially sets a 8000 step goal, as does Grace, who explains 8000 steps “would be a reasonable amount to do, especially with my work”. Danny sets a “fairly low activity level as default” once settled with tracking, whilst Shauna sets her goal at 1500, explaining that this goal is more reasonable for trying to push the boundaries of (constrained) mobility. More rarely, participants including Tina acknowledge the capacity of their device and associated app to automatically adjust goals as it learns (and becomes attuned) to what is realistic based on existing bodily movement. Tina remarks:

“Say for the next 3-4 days, I did 2000 steps. It would reduce my daily step, to say 3000, or 2500....you can manually set it, but it kind of does it for you. It does it to your fitness, what it thinks your fitness level is.”

Regarding the accessibility of recording data, participants such as Russell highlight the value of “efficiency”. For Russell, efficiency emerges from the apps capacity to “save time” due to only having to “press the button” to record data. An efficient workout, whereby the app “takes work away from me” is significant for transgressing the sense of “chore” of going to a gym - a space Russell generally disfavours, as section 6.3.4.2 of the prior chapter highlights. Other essential affordances the app offers include “timer” and exercise counts. These also help to facilitate a more effective workout by reducing the need to track in alternate “effort”-intensive ways such as with a watch and calculator and manually inputting data into a spreadsheet. Russell suggests the app he interacts with makes tracking “easier” and can “reduce the barrier to working out slightly”. There can be limits, however. For Russell, the design

of his app entails monetary barriers, which first results in more effort recording data to gain a greater sense of “completeness”. Russell explains:

“It’s got a pay wall er, blocking a bunch of...Like I can’t add additional exercises - called accessories...I have to like, have to fiddle...I am stretching the utility of the app.”

Only when attuning again by becoming receptive to other ways of generating data does this increased effort and the stretching of the capacity of the app become mitigated and reduce opportunities for less favourable affective states. In one diary entry, Russell remarks:

“I also found a way to use the notes to record additional exercises. So, remember when we talked in the interview about accessories, and how we couldn’t log accessories and that was annoying me? Well I found a way in the notes section to at least keep on track of it. That’s pretty cool, so now I can pretty much chart that easier without the pay wall, without having to pay.”

Visualisation of data can inform some perceptions about data and ways data can contribute to well-being. As participants such as Andrea convey, there are attempts to make sense of what data is most valuable between two food tracking apps with different metrics. One previously connected with when working towards becoming slimmer and one she connects with now. Andrea considers the first to be better at disciplining her food relations as the presentation of data on her current app has limited potential to encourage her to balance meals and treats. Participants such as Skyler also make comments which suggests there is a process of learning what forms of feedback display are better:

“There is Apple Health and then the activity app that measures calories and exercise minutes and standing minutes, and I really like the way that information is presented. It’s the most frequently used screen for me on the Apple Watch. I check during the day. There is optic feedback that it gives you, like rings to complete during the day, and it gives you encouragement and achievement badges and things. I just thought other ones were a bit naff before, they never really meant anything to me, the Jawbone ones and the Fitbit ones, I was just a bit, mm. But

when I actually think about it, what is it that is different? I think it is just the basic circle... I really like visual data but I like certain formats, the way data is presented and I like that it has a black background and bright colours and it is simple.”

Navigating different data during our video call which *Skype* enables, Skyler shows such circles and proceeds to explain that this presentation of feedback helps her become “conscious” about what she is doing and feel “on top...like, I am doing something”. The capacity for data to encourage physical activity is elaborated upon in section 7.3.2.

7.3: BECOMING ORGANISED BY NUMBERS: DISCIPLINING BUT RELISHING?

This section presents insights drawing upon the potential for individuals to become increasingly disciplined when interacting with slices of data which capture and communicate bodily movement and habits. It becomes evident that behaviours and feelings generally directed towards reproducing stratifying ideals associated with particular kinds of eating regimes and exercise regimes tend to manifest when recording, consulting, and becoming increasingly organised by, data. Relatively rigid changes generated have the potential to be welcome however. This section further presents insights which indicate many participants invest further in self-tracking; co-creating relations of habit. The potential for tensions to emerge and for some participants to turn away from self-tracking is not overlooked.

7.3.1: As food tracking can prompt careful decisions regarding food to be consumed

As section 7.2 highlights, some participants become attuned to tracking food consumed. Though not always the case, participants who become attuned to tracking food typically seek to de-territorialise from a becoming-bigger assemblage and desire a slimming (albeit not necessarily slim) body. This is upon directing greater attention to aspects such as bodily appearance or fit of clothing. Notably, some participants make efforts to regularly log food manually when attuned, as is the case for participants including Rose and Danielle. Others like Shauna, meanwhile, ‘scan absolutely everything’. Participants including Lucy, Danny, Tina, and Ethan also frequently consult data by making sense of data regarding food alongside data regarding physical activity when calories are measured and synced in real-time

between app platforms. From tracking food in these ways, participants generally strengthen their relations with food (Fox, 2002) in ways that are disciplining. They become increasingly aware of, and less “blind” (Williams, 2015, p.126) to amounts of food they consume and how much else can be consumed. They consequently make increasingly careful food decisions. This is relative to accommodating unchecked desires (Fox, 2002). Interestingly, this does not necessarily produce feelings of alienation or frustration as argued by authors including Cederström and Spicer (2015) who suggest this to be the case when monitoring lifestyle choices.

7.3.1.1 Planning

Ways of enacting careful decisions can include giving greater attention to planning meals. Some diary comments, as evident in the following diary entry Danielle records, exemplify this:

“Input my food to see how I was doing and to then help me plan what sort of dinner to have... I find it helpful to plan right up until bedtime and include that final evening munchies to stop me from then mindlessly wandering around the kitchen.”

Notable is that whilst participants consider tracking food as somewhat easy generally (as section 7.2 highlights), the labour which planning meals involves is sometimes explicit. Shauna states during our interview:

“I think the weighing aspect of it can be a bit of a nightmare, it just means you have to make sure you are planning. At the end of the day you have to plan, so it is just, like I know that tonight is my Zumba session, so my husband prepares my tea for me, so all I do is make sure everything is set out for him so all he has to do is cook it.”

In such instances, Shauna does not necessarily need to negotiate with others (i.e. her husband) to execute planned meals. This is because, in such moments, both are “eating the same meals, it is just mine is weighed out and his isn’t weighed”. Evident, nevertheless, is that in such moments, to make changes such as plan meals better can be demanding. The capacity to plan meals better is also still contingent upon others (e.g. weighing instruments, husband cooking food). Planning is not done

alone. This is an insight comparable with insights from other studies (e.g., Esmonde and Jette (2018)).

Though planning meals is often done to accommodate particular interests (e.g., becoming slimmer or resolving a health issue) there is scope for meal planning to reap further benefits that can be associated with what participants like Joanna acknowledge as ‘convenience’. Joanna is conscious of reducing food “waste”, for example. Planning, therefore, can entail contemplating food choices to better suit “cooking for one”. She explains:

“Obviously I do plan my meals – but more of a kind of, even if you took out the macro element, it becomes a way of meal planning that relates to, what do I need to cook in advance and what ingredients do I need to buy?”

Planning can also become a rather “liberating” experience. It can help manage inconsistent or unpredictable relations which daily life generates. This is particularly so if willing to go beyond social norms regarding mealtime hours. Joanna explains:

“As a student who has had very little structure, I don’t have like a 9-5 day where presumably I would eat breakfast before work, I would have lunch at lunchtime. Sometimes I have lectures that go on from 11-4, so what do I do about lunch?... So, I often use it in a way in relation to timetabling and to figure out when am I going to eat...I don’t so much worry about when I have it.. it is like, if I miss breakfast, if I miss lunch or whatever, it doesn’t matter. I will just have it. Which is also weird for some people as they will be like “why are you having lunch now?” or whatever and it’s like, well I haven’t had it yet.”

7.3.1.2 Balancing

Further pertinent to several participants interested in making increasingly careful food decisions, however, is balancing amounts of food consumed over a particular time period (e.g. a day) or balancing amounts of a particular type of food to consume. The latter resonating with what is previously articulated as “measured pleasures” (Cederström, and Spicer, 2015). Participants effectively straddle between molar and

minor, between stratified and organised or less so (Deleuze and Guattari, 1987; Lara, 2018). They contemplate governing forces and remain conscious towards adhering to particular goals. Nonetheless, they also remain attentive to not being too restrictive and still making efforts to indulge in desirable foods now re-territorialised as 'bad' or a 'treat' (Fox et al., 2018).

Participants like Lucy, for example, do not "deny" themselves foods, but become conscious of how much to eat. Pizza, if consumed one day may be followed by "salad" the next, for instance. Danny, meanwhile, who acknowledges his initial cautious approach works out "better", becomes open to enjoying particular foods that may be judged to be 'bad' but this can be contingent upon consulting data and ensuring foods including "chocolate" or those high in "salt" are not over-eaten in a close time period. Danny states:

"There is one type of pasta I love, and it is chicken and bacon pasta, and if you look at it, everything on the label is red, you know when they give you those labels on the front where it says what the fat is and so on. And looking at just the label, if I was going by that, I wouldn't allow myself that because it looks terrible. But looking at MyFitnessPal, I can go 'ok, actually, if I don't have chocolate that day and I don't have something else with too much salt in it, I can have that and it balances out'. That allows me to sort of treat myself and not be too restrictive. Because it is about having everything in moderation, whereas just looking at those labels and everything is screaming red, saying "no this is terrible for you, don't have it', you know, I would still be denying myself this, that, and the other, and I don't think that is a healthy place to be in."

As the above comment indicates, social marketing techniques including the provision of nutrition labelling "screaming red" have diminished capacity to be affective in given moments. This can be favourable, however. To moderate is better than problematically restricting foods.

Referring to other occasions, Danny further conveys that as long as there are efforts to maintain accountability with an app, foods (e.g., "treats") can be enjoyed relative to being dismissed as typically the case with alternate dieting regimes:

"I live around the corner from a really nice little ice cream and pancake shop and it is very very tempting and I can go there sometimes, because I have been on diets before where I've gone "ok I can't have that, it's a pile of chocolate syrup and ice cream and pancakes and it is terrible" but actually, I can go for that, but what I need to do is log it, and then not treat myself tomorrow. I can have that 1 day out of the week or something like that. And so it's nice being able to still have those treats."

These moments can contribute towards experiencing hedonic well-being as indulging in treats is satisfying. Further noteworthy though is such measured pleasures are also less likely to be counterproductive to slimming in sustainable way. Certain forces are bound to interrupt more rigid and organised connections (Deleuze and Guattari, 1987; Lara, 2018). After-all, foodstuffs like ice cream and pancakes can become "very very tempting". Yet, allowing for indulgences does not, as Danny states, "completely blow" a diet. This differs from stricter relations with food which may not last. Indeed, "banned" foods can become even more "appealing".

Other participants also engage in balancing foods, albeit in different ways which are personally meaningful. Shauna, for example, enacts measured pleasures by making substitutes rather than entirely repressing a desire for foods. The following examples hereafter demonstrate this:

"I still have my chocolate bar every day but where I'd have a Mars Bar at 279 calories, I will have a Curly Wurly at 113 calories."

"It makes me look at what I am doing with my calories, so rather than sitting down and sort of having a bag of crisps that is 130 calories, I swap to popcorn that is 70 calories. So I have still got that mindless, oh my god I need the action of you know, hand to mouth, I have still got that action, and I've got my sweets, you can have sweet salted or savoury, whichever you want. The toffee flavour I have. But I am still getting that and I am eating something and enjoying it."

"They had the calories printed on the menu. So that was really easy to work out. And with the puddings I was gonna have, they were like 1200 calories, and I thought 'what, it's not worth that. So I just had a kids

pudding which was only 200 calories. I still got my sweet stuff but I am just having them more wisely.”

Such comments convey that Shauna's choices can still comprise of "mindless" eating. Whilst enjoyable, then, some choices made do not bring one any closer to more open relations with food. This can include simply enjoying the textures and taste of foods (Tandoh, 2018) or eating merely for innocent pleasure (Coffey, 2019). Rather, choices are overshadowed by a desire to have disciplined relations with food. Nevertheless, Shauna feels a sense of “freedom” when making more conscious choices which do not repress her desire for certain foods completely or diminish her accepting temptations. This sense of freedom may emerge for reasons including memories of alternate dieting strategies engaged in with limited success in the past remaining affective. Shauna draws upon memories and makes comparisons. The following comment is illustrative:

“Yeah, you have got the freedom (regarding when making subtle changes). And it's like, if I do fancy – if, before on the diet or say I have gone out with my friends and I have eaten whatever, say I've had a cake, first thing you do is go 'Oh my god you have had a big piece of cake' and sort of straight away you are in a negative cycle, whereas with this it's yeah I had a piece of cake, it was so many calories, I enjoyed every mouthful, and you know what, it's not the end of the world.”

As further participants including Grace acknowledge, decisions like these (alongside changes to physical activity) can contribute to becoming slimmer (e.g. by losing weight). This contributes further to well-being. It can be one of the “best feelings” (Lucy) to see a metric suggesting one has lost weight, for instance.

Participants including Ethan are also attentive to enjoying familiar things whilst measuring calories “throughout the day”:

“You can make sure you are in the right deficit, but also can make sure you can have half a Turkish Delight bar or something, or a Freddo, or whatever. You know, I can have some chocolate, or something quite nice. And you are having those little nice things that are really important to your wellbeing, to sort of have creature comforts. So I think the way

it allows you to do those things and still continue with a diet is really, really important.”

Notably though, participants like Ethan also accept that in ongoing efforts to slim down, de-railing from a plan and then making efforts to balance again what foods are consumed can from time to time just be as important. Ethan remarks:

“It just takes longer, and you have to do that every now and again, in order to ultimately lose weight over the course of a year. That is fine by me. My downward trend has been really good since about 2 or 3 months ago. I have lost about a stone so I am really happy with that.”

7.3.1.3 Navigating (food) spaces

Further worthy of acknowledgement is that food tracking can transform ways participants navigate spaces where there is food available. This is already implicit in the examples regarding Danny not being too receptive to food labelling and only entering spaces to enjoy tempting foods on particular occasions. Participants like Shauna, nevertheless, also devise new ways of navigating spaces after engaging with data and becoming increasingly conscious about the content of food. As one example, Shauna explains:

“I no longer fill up at a normal petrol station. I always go to one, you know like ASDA which doesn't have a shop in it, because you are standing there waiting to pay and you have all the rows and rows of goodies and sweets, the crisps, the bakery, everything else, and I would come back to the car, without even thinking, and I had 5 or 6 chocolate bars in my hand, and I had eaten 3 or 4 by the time I got home. So now I deliberately go to a petrol station where there isn't a shop.”

Here it is apparent that Shauna sets new boundaries. Fortunate enough to have a car, she blocks out particular spaces and instead drives elsewhere to diminish the potential for particular foods including sweet or savoury snacks to seduce her and evoke impulsive purchases. This is because she is learning from data consulted and is increasingly aware of “how hard it is to earn calories back”. Whilst on the one hand

this can be interpreted as further disciplined relations with food, this perhaps can be recognised also as a new power to act. Foods which were alluring and indulged in, and contributing to the framing of her bigger body, are now increasingly resisted.

Though rarer, Shauna exercises this new power to be disciplined even when becoming emotionally vulnerable in unanticipated situations. In another event whereby Shauna becomes emotional seeing Mother Day Cards after recently losing her gran, she confidently resists foods like “Mars Bars”, walks out of the supermarket and takes comfort in foods she considers healthier (e.g., “apple cut up”). This is before reconnecting with the retail outlet. When elaborating on why this is “good”, Shauna states she would not have to spend time trying to “work it (food such as cake or chocolate) off”. Moreover, she feels she is “learning”, which is important to her as she opposes other weight loss alternatives such as surgery. She is also aware of the shortfalls of interventions with limited continuity. As is the case for other participants then (e.g., Lucy trying a slimming club regime and Danny with prior experiences of disordered eating), tracking and working to be contemplative about food and enacting perceivably better food choices can be sustainable. This is relative to alternate dieting strategies whereby less favourable affective states, or destructive behaviours, can emerge.

7.3.2 As physical activity tracking can encourage (realistic) movement

This section presents findings conveying that individuals can become largely number-driven, striving towards goals perceived to be desirable. To stress, however, this can be contingent upon other human and non-human others, as is suggested in other recent literature which chapter 4 alludes to (e.g., Esmonde and Jette, 2018). This section further presents findings demonstrating that in given moments, participants are concerned with doing what is realistic to try to advance well-being in ways coinciding with recent interests. Going further, then, this section makes clear that the capacity of particular technological affordances to steer bodily movement in a predominantly number-driven way can become limited when particular relations assemble.

7.3.2.1 Adjusting bodily movement to generate a desirable step count (everyday activity tracking)

For some individuals who consider themselves reasonably active, to consult daily activity data may be more for validation or to quench a curious mindset. Several individuals can become more disciplined, however, as consulting data can encourage them to want to move more merely to reach a particular number. For some, predominantly number-driven practices may be more prevalent when self-tracking is a novelty. Furthermore, when goals are only recently set and not necessarily being reached. Comments from participants including Lucy, and Rose, respectively, are suggestive of this:

“At first, I was very like, number focused. I was like, I have to get to 10,000...now I have had the Fitbit, for I think about 2 years, so now it’s kind of less about the numbers.”

“At the beginning, I struggled, and I’d get home and I’d be like a crazy woman with my coat on walking up and down my street just to get 10,000...just to get 10,000 steps.”

There is the potential, nevertheless, to re-experience moments whereby movement is reasonably number-driven when self-tracking is no longer a novelty and when changes including giving more attention to movement have already been generated from self-tracking. Rose sheds light on a recent experience encapsulating this. She explains that sometimes she will deliberately walk home to reach 10,000 steps after viewing data:

“Now I’m much better in that I will try and kind of go for a you know, quick walk around town for 20 minutes, half an hour, there’s 3000 steps done. But even so, so even like last night, we went to Tesco’s at 9 o clock at night coming home, erm, and I’ve got 1200 steps to do. You drive home and I’ll walk home in 10 minutes because I’d get 10,000 steps.”

Participants who are affected by particular tensions reinforce this further. For example, one tension that can emerge is data being perceived as less desirable. Ethan makes comments suggesting this tension can be often (re)produced when regularly viewing on his app low step count data. Comments further indicate that this

mediates one to strive closer towards a step goal. Similarly, participants including Penny become responsive to feedback, visible when tapping their device. The following remarks from Ethan, and Penny, respectively, demonstrate this:

"Now I do actively look at the app every day and it will say I have done 2000 steps and I will be like 'oh god' and try do a load more."

"You tap and it tells you by the dots and I have been known to like, roam around the house a little bit if I know I am really close or walk on the spot when I am brushing my teeth before I go to bed."

Challenges also can encourage number-driven movement and help generate data perceived as increasingly desirable. Not every participant is interested in challenges. Participants including Andrea prefer to maintain "private" tracking relative to engaging in increasingly communal modes of tracking (Lupton, 2016b), for example. Resonating with other self-tracking related literature (e.g., Fox, 2017; Pink et al, 2017; Duus, Cooray and Page, 2018), however, there are various occasions whereby components including social challenges spanning a particular temporal period become affective. That is, they encourage individuals to move more in ways that can require considerable effort. Noteworthy is that sometimes challenges are a way for friends to offer each other support. As Danny comments, friends "at the same level" can "cheer each other", which is "encouraging". Nonetheless, often it is the case that challenges enable comparisons of own data with the data of others and challenges open up opportunities for competition.

Indeed, challenges (which are encouraged within the workplace) seemingly ignite Hugo's "competitive mindset" and skew his interest towards "simply being number 1". Hugo expresses ways challenges drive him to move more to try to beat not only people he knows, but also strangers he connects with. Further noteworthy here though, is an openness to interacting with such individuals which opens up the potential for well-being circles to be expanded as well. Hugo makes the following remarks. The first remark refers to an occasion whereby Hugo also notes feeling a bit "absurd".

"There was one evening where I had to go out to do some steps to beat (name) and my wife is like, 'who is this?' and I'm like, 'I don't know' (*laughs*)."

“I might be inclined to understand who (name) is, a bit more about them, and maybe hook up with them on other social platforms. And that is where it becomes a way for you to connect with like-minded individuals.”

The exercise required to beat others can at times become contingent upon opportunities from oneself as well as others to exert efforts to fit in additional exercise, however:

“The wife will ask how you are doing on it today. She may need to, erm, we may have to change our routine because of it, you know, mainly to do some exercise to meet challenges.”

Participants like Lisa, meanwhile, who turn to tracking when interested in becoming slimmer, can become increasingly competitive but also can become increasingly conscious of not wanting to be a “grotesque other” (Warin, Turner, Moore and Davies, 2008, p.102). To clarify, Lisa becomes particularly conscious of moving more and avoiding less favourable feelings when data representing what she does becomes accessible to others. Particularly, people she knows interpersonally. Contingent upon her leader-board ranking (which for various other participants also is not static but changes as others also compete), and contingent upon other aspects like mindset to deliberately walk, Lisa will, therefore, push herself to conform more greatly to ideals. These ideals include being more physically active to avoid stigmas typically associated with a fatter body. Remarks are made including:

“A few more people have got them and they are people I see on a daily basis so suddenly I am a little more conscious of what I am doing and I obviously don’t want to be the lazy one in the group so I am out walking so people can see what I am doing and I have been getting some more steps in...if I am at the top of my 25 friends or however many I have got on then I am not as motivated, but if I drop down the list then I need to do some catching up.”

“It’s perception. You know, I am overweight, I don’t want to be seen as the fat lazy one. I can be the fat one that does lots of walking, that is fine. I don’t mind that at all. But it’s that perception of what people think

of you if you are overweight, and then you are not moving anywhere. That just makes me feel a bit cringey.”

Natasha, meanwhile, who initially sets her data goal at 8000 steps, because she is conscious of “going too far too soon”, becomes open to pushing this goal higher and is also aware that challenges can be a “good motivation to get your steps up”. She discusses ways comparing data with others and participating in challenges with others can encourage greater work towards moving more. Notably, though, the capacity for solo challenges to encourage her efforts to move more also becomes evident. The following diary extracts exemplify efforts to move more when competing with others or when participating in solo challenges.

(Entry 1, *21 April*) “Stepped it up a notch with my daily steps...normally 8/10,000 but been 12/15000 as doing the workweek hustle” “determined to get more than him... so I begin walking like mad around the house!!!” “massive urge to get steps in” “while writing I am getting those steps in.”

(Entry 5, *29 April*) “Pushing me to get to the top spot” “I have my feet in a foot mask...worked them hard this week.”

(Entry 7, *02 May*) “I think I am pushing myself. I like getting that walk in and pleased that I am going further. I am even thinking of different routes to go further.”

(Entry 8, *03 May*) “I set up a challenge yesterday, so I tried to do some steps at home...every advert do steps.”

As the above extracts imply, efforts to move more, can be contingent upon other affordances too like access to spaces (e.g., within the home) whereby one can be flexible and fit in more movement whenever possible (e.g. when TV advertisement breaks are transformed into periods to step up). This can be despite problems including “back pain”. Efforts to move more can also be extended, if for example, having spaces to contemplate, and execute, extended walking routes. Interestingly, whilst also spurred on by badges, Natasha realises in her diary entries that she doesn’t look at her Fitbit app “as often” unless competing either with herself or with others. Participating in challenges can, therefore, be highly significant to ways of

becoming re-attuned and re-directing attention to adjusting step goals to something higher when averaging greater step counts. This corresponds somewhat with a comment in her interview around a month prior regarding working “on the feedback that I get” and adjusting goals higher if step count averages are better “consistently say for two weeks”.

So far, this section generally conveys ways self-tracking can produce a desire to be predominantly number driven. Individuals exert significant efforts to do physical activity and conform to neo-liberal ideals (Depper and Howe, 2017; Charitsis, Yngfalk and Skålen, 2018) associated with mobility, competitiveness, and responsibility. Significant to acknowledge, however, is that the quest to generate desirable data which prompts more movement can also generate further significant capacities. This is welcome given recent interests emerging (e.g., becoming slimmer and boosting activity). Participants including Natasha and Fiona, for example, notice their body shape changing when working harder. For Natasha, this is a welcome addition to that of exercising and just appreciating the outdoors. Capacities like this further enhance the number of things one connects with. Both refer to getting new workout gear. Natasha “treats” herself to “new trainers”, for example. Comments from Fiona, meanwhile, suggest this is unexpected but meaningful as it transforms the way she feels about herself and how she looks. She remarks:

“I could go out, and I bought running gear. Me! You know, I was 58, 59, I’m wearing running gear!”

This section now turns attention towards moments whereby individuals still are generally driven somewhat by numbers and make efforts to move more when they can, but also simultaneously are not compelled to push beyond what might not be so tenable. For example, competing in a social assemblage by partaking in challenges, is, as for other participants aforementioned, highly motivational for further participants like Shauna. Nonetheless, her limited mobility means it is likelier she will only “do a little bit extra...if it’s within an easy target”. Efforts to do what is more tenable are evident, however, when considering relations emerging in everyday life which contribute towards a struggle reaching a specific goal. Furthermore, which contribute to becoming (re)attuned (again) for reasons including to keep on track with working towards addressing new interests. This is especially so when participants experience physical health conditions. As is evident in Natasha’s later diary entries for example, “nearly 4 weeks of back pain” resulting from bodily injury constrains her physical

activity. Natasha becomes open to readjusting goals, then, to help with maintaining motivation whilst only limited activity such as “gentle walking” can be accomplished. She makes remarks, including:

(Entry 19, *13 July*) “It seems I am averaging about 6000 still getting some sciatica pain...considering bringing my daily steps down to say 7000 and see if this helps my motivation...I will change my target to get 7000 steps a day...and aim to get that for a week.”

Tina, meanwhile, who previously stopped participating in challenges as her “knees couldn’t take it” due to arthritis, acknowledges in her interview that since interacting with her new device, she is focusing on a goal of around 8000 steps, rather than 10,000. Though trying to move closer towards this (especially as perceptions associated with being “lazy” are influential), she does not push herself. Instead she leans towards acceptance, acknowledging “I do what I do. I do what I can”. Notably, For Tina, moving closer to a new goal is contingent upon activities including going to the gym or walking outdoors. This is because other relations such as space accessible in her workplace (“store”) is limited, constraining opportunities to walk and contributing instead towards feeling “trapped”. Tina explains:

“If I don’t go to the gym, I will do about 8000, because of the certain walks that I do, and I know that I can manage that. And I am quite happy to keep it at that. But I know that if I go over that every day to 10000 I will be in pain. So I would rather just keep it at that, and know that I am doing that. And then use the gym as an extra. But then if I was at home on a Sunday, and it says 3000 steps, I would go out for a walk, if you know what I mean, to get a bit more.”

Danny also suggests he will work hard towards a goal (which he recognises would be perceived as sedentary normally but is suitable for him):

"I still set the target and it still pushes me to get it. I’d say on average I probably do about 3000 steps which I know is sedentary, but I push myself to do it because I want to continue to lose the weight that I am losing, and you know, maintain."

Nevertheless, it is noteworthy that he becomes increasingly attentive towards the limits of his mobility after data generated heightens his awareness. He explains:

"I wasn't being realistic about my limits, and I think part of that was not having the information because I was comparing myself to when I was younger before I was disabled. Because I used to be really really active. I was very fit. I was walking all over the place. I could essentially physically do whatever I wanted to. So, some of this was coming to terms with, actually, I'm not the healthy 19-year-old anymore. I can't do that. I need to be realistic about what I can do. So, some of what has helped me with the data is actually looking at where my realistic line is. But initially I definitely pushed myself more than I should have."

Though less common, it is apparent that work relations can also be significant for re-attuning. Participants including Lisa, for example, explain that sometimes a step goal will be lowered due to work commitments:

"The times I set it down is when I know I have got a day I am not going to be able to do a lot or if I am working a block of nights. But then I reset it to what I was previously. I go back to where I was."

Generally, though, many participants describe occasions whereby they do what they can to come closer towards, or exceed, goals they have initially set or re-adjusted as lower or even higher. For many participants, this often entails remaining attentive to such goals and making subtle changes to walk more. This may comprise of environmentally friendly changes (e.g., turning away from transport and walking to places) as is evident from various comments participants make during or interviews or within diary entries:

"Walking to go shopping instead of getting the car and going"
(Lisa)

"My daughters' nursery, again, it's maybe a mile away, and it is very easy to jump in the car and pick her up, but you know, I have been actively walking there more often" (Hugo)

“Made a conscious effort to do my steps. Two dog walks and walking my son to his drama rehearsal instead of driving (he loves me for it really).” (Danielle, diary entry 4).

Several comments posted online whereby individuals stress ways tracking motivates them compliment such remarks. Comments allude to individuals walking to work or home more instead of using transport such as “bus”, “taxi” or driving a “car”. This happens when becoming aware of levels of (in)activity or when nudged by technological affordances, including reminders to move. Not all changes comprising extra workouts in everyday routines necessarily require an explicit turn away from transport, however. Comparable with comments individuals post online, which indicate changes can be made by extending pet walks or taking stairs more, for instance, participants may simply plan to do what they can in accessible spaces. The following comments exemplify this:

“If I have not done very much, and if I am conscious I am below 5000 when I have finished work, I do tend to stop on the way home and walk up the hill then come back to the car, whereas if I have hitten 10000 I tend to just go straight home. So, it does motivate me, it does nudge me, in that situation.” (Lisa)

“I will go for a walk, I will walk there or I will park the car there, or actually, I am not going to manage a lot today so maybe I will do a longer walk on a Sunday or something like that. It’s sort of planning.” (Skyler)

“I try do more things around the house and in the garden...I do more ironing, painting, stuff around the house” (Denise)

Carole, who acknowledges that tracking with a device can be encouraging without evoking as much pressure as other alternatives such as trying to go to the gym, also refers in the interview to occasions such as the following:

“Let’s go for a walk around the block...Let’s get this step-aerobic out and just jump up and down in the middle of the room. There are even some nights where I am near my target and I’ve only got 300 steps to do. I will literally do what my other half calls “knees of Mother Brown”.

I'm just doing knee raising exercises in the bedroom, to make those extra steps."

Andrea, meanwhile, states:

"It's getting me to move more. I think...it makes me think, you know when I said before I look at it and go, I've only done 500 steps. It will make me think, 'maybe I should try and walk around to the shop, or tomorrow, when I get the chance.'".

Notably, doing more activity as provoked by tracking can, as acknowledged by some participants as well as individuals posting online, help contribute to weight loss. This is especially welcome for participants interested in becoming slimmer. Doing more can also be beneficial to those interested in managing their health. Rita, for example, acknowledges that doing more steps helps with "trying to beat, well, control my diabetes". Participants such as Carole who are interested in boosting activity and moving beyond the limits of their mobility, meanwhile, recognise doing more steps can be valuable for helping overcome lethargic feelings. Other welcome and varied changes can also occur for different participants however. Whether this is finding things to do whilst outdoors, as is the case for Skyler, or finding activities participated in are valuable given recent things coming to matter. For example, Hugo, who cares for his heart health, goes on to remark:

"You find pushing a pram at a fast pace as well gets you into the cardio zone."

Natasha, meanwhile, becomes attentive to her productivity and feels she is making good use of her time; establishing a stable routine whilst managing other (gendered) responsibilities. She explains:

"It's helped me to get into routine. Erm, when I was going to work, I would be up at a certain time, out of the door at a certain time, and I know I worked, came back home and that had routine. Erm, my middle son, when I had maternity with him, I used to go do classes in the morning, routine. With my youngest, because my middle one is at nursery, I have to work around getting back to him in time. So when I do things in the morning, I you know, have to sort of gage my time. So,

it has helped me to focus in on that time. So I know between dropping him off at 8:40, and picking him up at 11:40, I could, I can, potentially, get a walk in, do a few bits of housework, do the dinner prep, and get him, so I feel like I can still get a little bit of those steps in in my day. So I think it's just honed in and helped to confirm I am in a positive way, you know, doing that time in the morning."

7.3.2.2 Adjusting bodily movement: opportunities and disruptions

The prior section illustrates ways tracking encourages individuals to move more. This section directs attention towards ways moving more upon recording or consulting data is part of an ongoing, fluctuating, process. The process of moving closer towards addressing particular interests by becoming organised by metrics and including more physical movement in everyday life is, resembling arguments in further literature (e.g., Robson and Riley, 2019), not necessarily straightforward, linear nor easy to maintain. Moreover, what occurs cannot be expected or pre-determined but rather is contingent on a given situation (McLeod, 2014). Analysis of diary data produced over time by participants helps to convey this,

Consider Carole, for example, who is interested in keeping a diary regarding her self-tracking journey because self-tracking is, to her, still "new". Carole, who is interested in becoming-slimmer and alleviating "baggage" (as depicted in chapter 6) makes clear in our interview that it would be meaningful to be able to do more. Moreover, she believes a Fitbit device can "prod" her. As data within section 7.3.2.1 depicts, tracking with a Fitbit can encourage her to do more activity and help to alleviate lethargic feelings. Diary entries further convey, however, that the capacity for data to be affective and Carole's capacity to make efforts to move can also become somewhat limited as everyday encounters unfold. Consequently, efforts always start anew. This is despite often tracking (except in some instances such as when being very inactive) by reviewing data generated with her body-worn device as it records her movement throughout the day (see Figure 7.1).

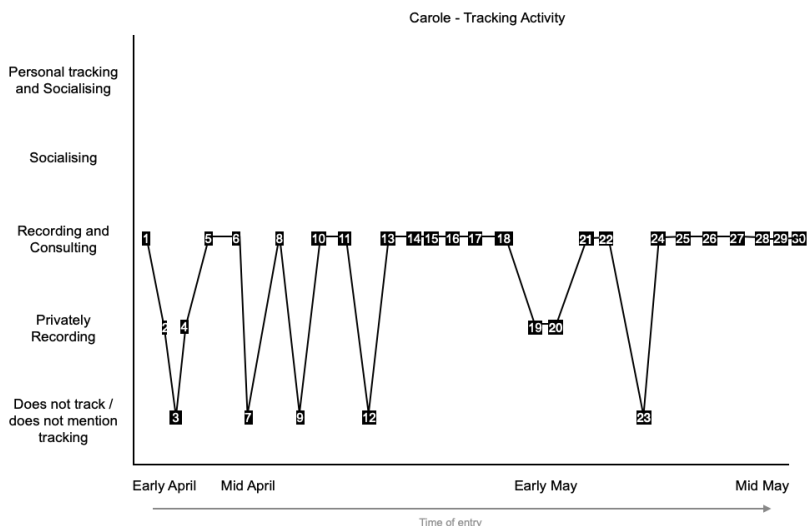


Figure 7.1 Carole’s interactions with data generated from self-tracking across diary entries

Periods whereby efforts to move more are consistent are often preceded by dips in activity, whether this is indoor workouts or leisurely outdoor exercise. This is apparent in Figure 7.2 illustrating whether, and what type of actions, are further produced from tracking activity.

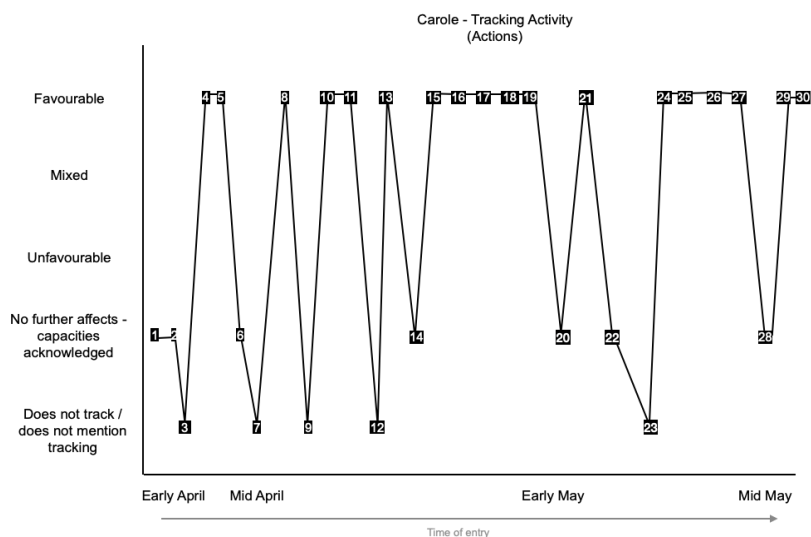


Figure 7.2 A visual overview of actions generated when Carole tracks physical activity

To elaborate, it is clear that in earlier diary entries (e.g., entries 1 through 9) there are few occasions whereby favourable actions including moving more are produced upon interacting with data. In entries one, two and three, for instance, Carole acknowledges “not pushing too hard” or moving only a “little”. This is despite earlier efforts to make “more time to specifically go for a walk” and despite wanting to make such efforts “a routine thing”. There is a greater degree of physical activity in entries 4 and 5, whereby in the latter Carole acknowledges doing “more steps than the rest of the week combined” and “going back in the right direction”. Moreover, there is a greater degree of movement in entry 8, whereby Carole mentions doing exercise to “increase my step count” and acknowledges tracking with her device and app gives her a “virtual kick to keep trying”. However, as she states in entry 9, she has generally had a “rotten few weeks in terms of movement”. This differs from comments from later entries including entry 10, whereby Carole acknowledges “moving in the right direction”. Furthermore, entries 15 through 19, whereby further efforts to move more are conveyed:

(Diary entry 15, 27 April) “Used the Fitbit and app for steps and water. Not a massive amount of steps but more than yesterday. Only checked/updated three times. Made me park further away to get some extra steps.”

(Diary entry 16, 28 April) “Hit 10,000 step target, only the 2nd time since 7th April so it’s been useful to spur me on to do a little bit of exercise throughout the day to reach the target...Made me work more to reach the target 😊”

(Diary entry 17, 29 April) “Walked to collect a parcel whereas I’ve often just driven. Made step count easier to reach so it’s great to be able to see the actual figures.”

After a further dip in activity as evident in entry 20, meanwhile, it becomes clear that moving more and hitting step targets is still not a “regular thing” though there is pertaining efforts to keep “trying”, as asserted in entry 21. Only is it in later entries (e.g., entry 27) when Carole “finally” feels, after days of remaining determined to do more and meet step targets, that exercising more (as well as doing other preferable things such as seeing friends more) is “becoming a way of life, a routine”. Yet, only shortly later (e.g. in entry 30) does Carole record having a “rubbish day”, suggesting

any routine is once again thwarted. Going further, Carole acknowledges in our follow-up interview having to “admit for the last weeks the steps have not been great” (the sense of having to “admit” implying a sense of inadequacy or becoming more distant from what Carole would rather welcome).

When physical activity is more limited for Carole, it is often disruptive forces (McLeod, 2014) such as feeling ill which constrain movement. Episodes whereby one emerges from ill-health is something other participants (e.g., Danny) also sometimes encounter. Carole insinuates in several diary entries that unpredictable problems including “cold”, “cough” and “asthma” flares can be affective, producing bodily sensations including feeling “tired” or “wheezy and drained”. This subsequently triumphs over the capacity for (tracking) data to produce favourable actions like moving more by re-entering into relations with others (e.g., workout equipment such as step-aerobic, or outdoor spaces). Lethargic feelings and limits to what can be done continue to be part of the broader experience. How disrupting illness episodes are, can vary, however. Some diary entries indicate that Carole continues to be spurred on by her Fitbit and the app. This is despite emerging situations including situations when having “struggled” and thought “it’s easy to feel fed up”, when having to “suffer” with forces such as “vertigo and tinnitus and ear pressure problems”. Follow-up interview comments reinforce this. For example, Carole says:

“Even if I am feeling fed up, even if my face does hurt, even if I am not in the mood, well you have got these steps to do.”

Now let us consider the case of Andrea. As Figure 7.3 conveys, Andrea records 27 diary entries across a one-month period. Across these entries, she often records and consults data. Often, by reviewing her step count upon commuting home from work or at times during the work day, by being attentive to the impact of a particular activity (e.g. housework, gardening) or by being attentive to data during runs.

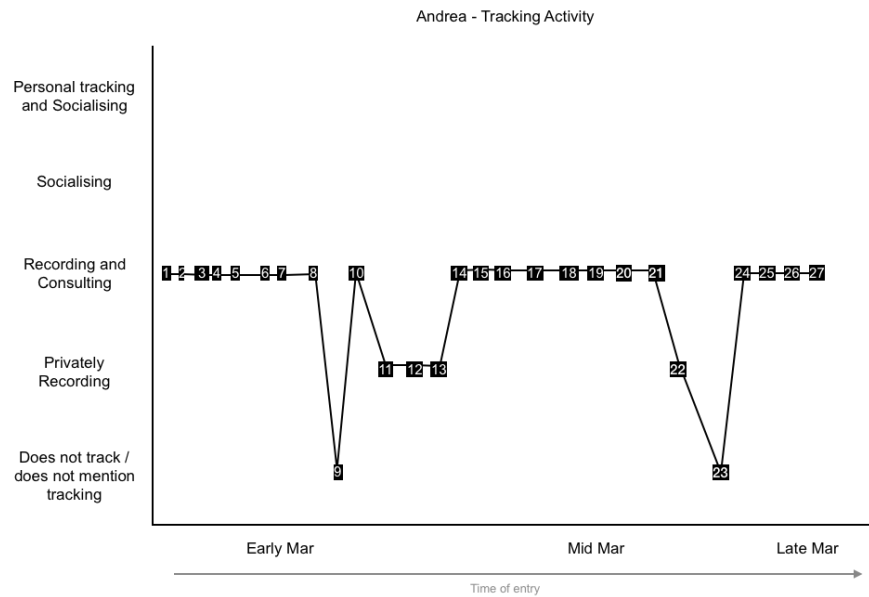


Figure 7.3 Andrea's interactions with data generated from self-tracking across diary entries

Yet, as Figure 7.4 conveys, only in 4 entries does interacting with data encourage favourable actions such as moving more. This is despite remarking in our interview that she thinks tracking encourages more movement (see section 7.3.2.1). Perhaps this is because, as Andrea reiterates later during our follow-up interview, she is reasonably active anyway. There is a tension then, particularly between whether data interacted with, can in given situations, enable and capture more movement or be more effective at simply heightening awareness to physical activity undertaken. As Andrea goes on to comment in our follow-up interview, nevertheless, attention directed towards limited activity can prompt a greater conscious mindset about moving more, suggesting further scope for change. Further noteworthy is a heightened awareness to activity levels that can provoke further affective responses which impact the well-being of others. As Andrea also explains, conversing about data with her husband and consequently contemplating physical activity levels further encourages movement. She remarks during our follow-up interview:

“I showed him, ‘look, I have only done 2000 steps’ when I have just sat been working at home and he has gone ‘oh my god, that is me a lot of days’ and I think that is what has prompted him to get out to do walks.”

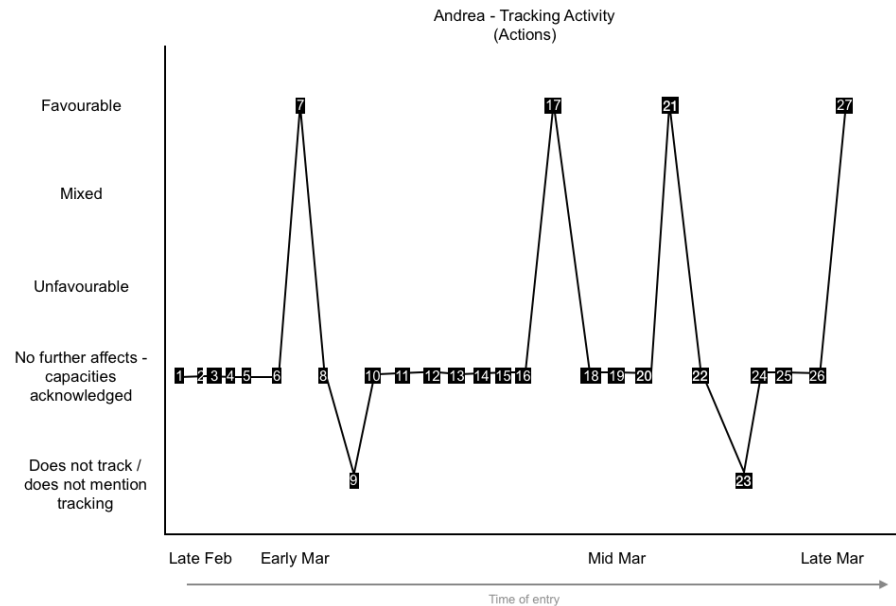


Figure 7.4 A visual overview of actions generated when Andrea tracks physical activity

On days whereby more movement is encouraged, are the following diary recording extracts to corroborate:

(Diary entry 7. 3rd March). "Worked from home got lots done and also met a friend for lunch. I deliberately parked some way from where we were meeting so I had to walk there to get my steps up. I was aware that on other days that I had worked from home I had hardly done any steps so that motivated me – it was about a mile there and a mile back which also meant that I parked for free."

(Diary entry 17. 13th March) "Went for a run first thing in the morning so hit my steps today. The fact that I have now been regularly running meant I was really motivated to get out. Worked at home but met a former colleague in town for coffee. Happy to park quite far away as I could get even more steps – way over my goal today...it motivated me to park for free and walk to the café rather than pay and park in the car park next to it. So saves me money as well."

(Diary entry 21. 17th March) "I don't think I would have walked to the post office if it wasn't for my Fitbit but as I hadn't done my usual walk to the station or go for a run I thought I would at least walk the half a

mile.”

(Diary entry 27. 23rd March) “I think monitoring my steps motivates me more to go on a run when I work at home as I don’t walk to the station and if I didn’t run, I wouldn’t hit my steps.”

These diary extracts indicate why the capacity for data interacted with to encourage movement can vary. Recreational time can frame activity. As can work choices (e.g., working from home whereby activity is more sedentary or working on-site which normally comprises at least an opportunity to walk during a commute). This is perhaps unsurprising in light of further online data indicating individuals may be spurred on if activity is limited by work relations. Self-trackers use time during lunch breaks to go for a “walk” or do “brisk laps of the park”, for example. Coinciding with insights by Esmonde and Jette (2018), some self-trackers also navigate work spaces to “stretch the legs”. Interestingly, some of Andrea’s diary recordings also indicate that (financial) well-being can be enhanced when making subtle changes.

7.3.2.3 Adjusting bodily movement (training)

Some participants who track when already encouraged to engage in activities less leisurely, meanwhile, make comments which are illustrative of ways that data consulted enables efforts to either push harder or expend less energy to help ensure activities undertaken contribute towards reaching meaningful goals. Online comments notably compliment such comments. For example, it is suggested that data regarding heart rate are useful for helping indicate when to increase speed to prepare successfully for races, for example. Alternatively, data consulted helps one focus on “good technique”. Participants within this study may consult data by reviewing data regarding speed or pace during runs to ensure a steady focus. Whilst Jamie acknowledges a tension – that of data becoming “distracting” when attentive to bodily sensations including tiredness, and in such cases, data leading to pushing harder to adhere to what specific data is recommending, data can also be guiding:

“I look at it quite methodically in that you have to get even splits or you won’t do the best that you can really.”

Other participants including Jeremy and Danielle also illustrate times when they are particularly attentive to data. This is because maintaining or reaching a suitable pace is to some extent contingent upon this. Within a diary entry Danielle records a striking example. To elaborate, Danielle decides to do a personal race after missing out on a half marathon. She aims for a “sub 2-hour time”. Her diary extract is indicative of her adjusting bodily movement when relying on knowledge gained from reviewing and making sense of data associated with past performances, and when checking her pace as it appears on her device throughout her race:

(Diary entry 8, *18 February*) “I religiously used my Garmin like I would have done on a race day. To make sure I stuck to a steady pace I knew I could run from training. Didn't want to get too fast and run out of energy too early. I looked at it a lot on the run. I achieved my time of 1:59:44 and really had to use it to check my final few seconds while going as fast as I possibly could in order to come in under 2 hours!!”

In addition to attentiveness to data, however, can be the importance of investing trust into data. Existing literature sparsely mentions trust, albeit there are exceptions from scholars including Duus, Cooray and Page (2017, 2018) who acknowledge trust when focusing on females concerned with behavioural change or with monitoring activities. Trust is somewhat implicit in remarks from both Jeremy and Danielle. Implicit in Danielle's extract above, for instance, is trust in the data being relevant to her present body's capabilities. Jeremy, meanwhile, signals in a diary entry that he trusts data when consulting data and trying to adhere to metrics relative to simply directing attention to feelings and bodily sensations:

(Diary entry 1, *29 June*) “I went for an evening run and noticed after the 1st half mile that I was feeling good and by looking at my TomTom multi-sport watch that I was going a very good pace. I decided to try and keep at a good pace, sub 8 min 30. I checked every few hundred meters and when I noticed that I was slowing I pushed myself to speed up a bit...I felt great looking at my watch knowing that I was running at what I thought was my best. This pushed me on.”

One participant who is particularly explicit about the importance of trust, however, is Oliver, when discussing preparation for marathon races. Oliver follows a “training plan” offering a tailored running schedule based on feedback generated when

tracking runs. He works with the app by recording what he believes to be closely accurate statistics about his runs relative to “bad” (meaning in this case, inaccurate, misleading data). This is so that he can receive information which will guide him towards his goal of running a marathon in a desired time, a time which if he meets, will enhance his well-being by bringing “delight”. His trust is shaped by his familiarity with the device, prior favourable experiences, the (people implementing the) design and algorithms underpinning the app, and the brands popularity amongst like-minded individuals. He articulates:

“My Asics is a reasonably respected brand, I kind of trust the people behind the app to deliver an effective training programme...and you know, I’ve used it for a marathon before, and it was good for what it did...and it helped me hit my goals for particular distances as well...the only query I would have around it is whether they have to build into it a risk element to not injure people so it might be potentially overcautious but I guess over time, if they are building the app and people are feeding back into it, about the distances they run, their time, they are getting constant data as to whether the goals they are setting, are measurable, properly measurable, properly achievable and so on...and it’s only as good as the input its getting from the people that are using it, because you can, you can obviously cheat it....the app is dependent on the data... but like I say, if they have built it, like I say, then I take it from them that it’s best practice that I do this. I don’t know better...I think trust is probably one of the biggest words around this.”

7.3.3: As data generated from tracking can produce empowering feelings

As various literature within Chapter 4 acknowledges, several scholars exploring self-tracking present findings which depict the capacity for data to generate favourable feelings. This section demonstrates that data with an expressive capacity to indicate something that can be perceived positively can provoke a series of favourable affective states when engaged with. These affective states may be unanticipated, but they generate a sense of well-being in given moments. Particular sub-sections also illuminate the potential on various occasions for other assemblages to shape to some extent the meaningfulness of affects generated. Further evident within this section is

ways feelings generated from tracking can vary, and fluctuate, as everyday relations configure.

7.3.3.1 Favourable feelings emerge when recording and consulting food data

As section 7.2.1 alludes, food tracking does not necessarily produce less favourable affective responses as described by authors such as Cederström and Spicer (2015). Decisions emerging upon recording and consulting data can provoke favourable responses. This section further stresses that tracking food – consulting food data especially – can itself create moments of good hedonic well-being by provoking feelings of happiness or accomplishment, for instance. The following comments convey this:

“I am quite happy to see what my intake of food is compared to my outtake.” (Grace)

“The data makes me feel good, when I do well...because you put it in, look at what I’ve done. Aren’t I great.” (Rose)

Interestingly, the latter quote suggests a greater potential for less favourable affective responses if data consulted is not compatible with goals. Nevertheless, further quotes suggest this is not necessarily the case. Rose explains after a contemplative pause, that favourable feelings can still emerge (albeit to a different degree) in alternate situations:

“When I haven’t done so well, and I know I’ve done bad and I’ve monitored it, I think it helps me a little bit, because I’m a little bit more in control...it’s not the end of the world. Whereas maybe when I don’t monitor it, in my head it’s like “oh my god, how many (calories) have I?” you know, what have I done? Oh no...but I still don’t like to do it at the same time, so that’s completely contradicting myself...but as I say, it’s more when I’ve done well.”

Similar to a further comment made by Rose, Grace explains “I don’t get upset or anything...I’ll just start fresh the next day”.

Noteworthy, however, is that only sometimes are favourable affective responses produced from food data evident in diary entry recordings by participants tracking food. Danny, for instance, makes comments suggesting tracking food with an app enables feelings of greater control. Only three times, however are favourable feelings made evident within diary entries. This includes on occasions whereby one has “stayed basically within diet plan” (see Figure 7.5).

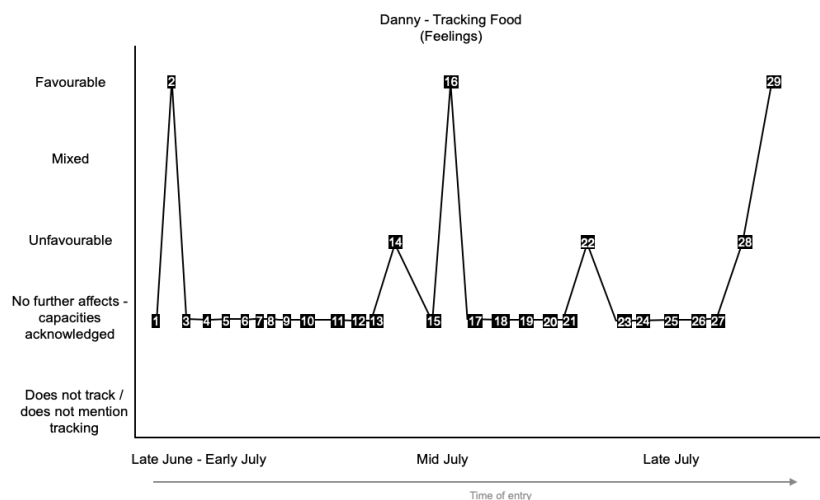


Figure 7.5 A visual overview of feelings generated when Danny tracks food

Further evident in some entries is greater attention to other related data generating favourable responses. Danny comments on data associated with progress becoming slimmer four times, for example. This data can be ‘reassuring’, evoke feelings of happiness, and generate a greater sense of motivation and commitment towards “my diet plan and workouts”.

7.3.3.2 Favourable feelings emerge when consulting activity data

Coinciding with some literature which chapter 4 presents, several data is indicative of favourable feelings also emerging in moments when consulting data regarding physical activity, or when noticing sensory mechanisms such as vibrations on ones’ wrist which heighten attention towards the accomplishment of goals on a given day. Data can provoke a sense of recognition, a sense of achievement, or a sense of completion, for instance. This is evident when Danielle achieves a personal best upon

doing her race (which section 7.3.2.3 alludes to). Comments from participants during interviews make this further evident:

“I went to the seaside the other day...and I ended up doing 20,000 steps a day. And I had no idea I had gone that far. Because I was literally just having a nice wander...if you had asked me, without having any of the data, how far I had actually walked, I wouldn't be able to tell you...being able to look at the data and say 'ok, that is what I did that day' is nice.” (Danny)

“It is a good feeling of mastery, like, you are actually achieving something and going in a positive direction...If I hit 15000 and it buzzes, that is a really good feeling.” (Lucy)

It feels like if I can complete all 3 circles, the day is complete, and actually often I do a lot more. I don't just stop when I complete the circles, but I feel like I have completed what I need to.” (Skyler)

“When you hit your own personal goals, it flashes green. Every time it does, I'm like (partner name, partner name)! and show him. It only flashes green for a few seconds, but for me, it's like I've done it today...I love it when I see it. Because I've achieved. My goal is to, you have to walk up 10 sets of stairs and things like that, and you have to walk 10,000 steps, and I've got it set to walk 5 miles a day, and when it's all done, I've done it, I've had a really good day and it makes me feel good...”(Rose)

When I get all greens, it's lovely...I like to see all green, and when I see that, I'm like, that has been a good day.” (Natasha)

A further illustrative example is apparent within a diary recording by Natasha. Natasha shares an image indicating goals are met for the following: steps, floors, miles, calories, and active minutes undertaken (see Figure 7.6). A comment suggesting efforts to meet goals and address interests such as boosting activity can be exceeded but are constantly ongoing compliments the image:

(Diary entry 5, 29 April) “This is my best day and earn the 30000 miles badge!!!”



Figure 7.6 An image portraying data which is representative of goals accomplished.

Of further interest, however, is the capacity for data consulted to provoke other affective responses. Contentment with the idea that enough activity is undertaken, for instance. This notably corresponds with a further insight from Duus, Cooray and Page (2018). Indeed, Denise, attentive to what her body can be capable of, remarks:

“It is nice to know sometimes that actually I can just relax. I have done a lot of things, I can sit down and watch television when I am tired.”

Moreover, Tina reports in one diary entry experiencing “a quiet calm content feeling the rest of the evening” after experiencing a feeling of completion and achievement when “reading the data” about her exercise efforts.

Favourable states can also emerge for when making sense of data which depicts efforts over time and illustrates ongoing commitments to a physical activity. Hugo, who is motivated by challenges but also makes other efforts to do more cardio-intensive activity to address health concerns, remarks:

“What gets me most excited looking at the data is there is one graph that shows your fat burn, cardio, and peak, as a table over time. And the more, it starts orange for cardio and red for peak, and those colours I see more of a colour, a bit like, you know on social media when you get a notification you get a bit of a heart flutter and think ‘aw’, I get

similar feelings to that, when I see you know, I had a particularly good week doing cardio or peak. That is the most important thing really, to me.”

Danny, who seeks to extend the limits of his mobility, also acknowledges feeling encouraged when seeing his ability to exercise for longer improving over time. He acknowledges also feeling somewhat reassured when data exceeds his own cognitive capacities and communicates to him tangible evidence that “things are improving”. Coinciding with being realistic, having information whereby own progress can be compared is considered “helpful” and better than making comparisons with content (e.g., workout plans) in men’s magazines which are incompatible with what Danny’s body can do. Likewise, participants including Jeremy feel not only proud but also encouraged when making sense of activity progress over time. Jeremy indicates feeling better “prepared” for a race when consulting data, for instance. Skyler, meanwhile, expresses that opportunities to make sense of data accumulated over time can generate feelings including “feeling alive”. To “see how many steps I have done for last month” gives a sense of “traceability”.

7.3.3.3 Favourable feelings emerging: prior experiences are entwined

During interviews, it also transpires that recording activity data and socialising with others can provoke feelings including a greater sense of motivation and/or belonging. Striking at times, however, is ways some participants can make sense of such affects in light of other connections. Shauna, for example, who asserts that recording data and exerting effort to do more activity as encouraged by her device and app gives “a little bit of control about my life...where my illness doesn’t give me control”, also explains that recording data, comparing data with others and competing with others, even if their capacity to move is greater, makes her feel part of a collective. Shauna comments:

“It’s nice that I can feel like I can at least try and compete with her. I think I’ve beat her twice when she has been poorly, but it is still quite nice that I can get in it...it’s nice to feel inclusive.”

Shauna goes on to suggest that this sense of inclusion is particularly meaningful since she thinks about this in relation to her past, whereby her disability and social norms

growing up frame limits to her sense of inclusion and instead provoke a sense of marginalisation:

“I think when you are disabled and have been disabled from birth, especially when you were born - I was born in the sixties, you were, you weren't included as much...this makes me feel inclusive, that I am like the rest of them.”

Further comments regarding competing with her family reinforce the sense of inclusion that socialising generates. Shauna says the following about weekly picnics whereby her family assemble together and take time to compare data:

“Although I have always been included in the family, I now feel like I am really in the middle of them.”

Fiona, meanwhile, who states she “clicked on community, not knowing what I was going to find”, is able to extend her (previously limited) social circle through “wired” interactions (Cochoy et al., 2017). Interactions include connecting more with like-minded others in within-app challenges and immersing oneself within a Facebook group whereby trackers across the globe compete in new creative challenges and converse and share other aspects of everyday life. Fiona makes comments suggesting she particularly appreciates the empathetic support (Moisio and Beruchashvili, 2010; Higgins and Hamilton, 2019) circulating amongst self-trackers assembling together:

“It's just wonderful, because they understand how you feel.”

This is especially meaningful given the lack of support from others she interacts with. Family members, in particular, for instance, as the previous chapter makes apparent (see section 6.3.1.2).

There are further clear moments whereby responses generated from making sense of data are particularly meaningful given other affective connections in everyday life. Tony consults data from his device which he syncs to third party platforms such as Strava. He also immerses himself with “spreadsheets and things”. This is despite not anticipating this would be the case. Syncing data and becoming immersed not only helps Tony to make sense of his progress over time but also enables him to make

comparisons of his cycling performance with others. He is attentive to monitoring his performance further through additional practices including making connections with foods he consumes. He suggests “beetroot capsules” impact performance, for instance. For Tony, cycling, immersing oneself with data, and competing generally produces enjoyment and is welcome given an attentiveness to aspects including making fitness improvements and dealing with work pressure – as section 6.4.3.1 of the prior chapter acknowledges. It also provides a sense of escapism from other values generated in work assemblages and to compete by reconnecting with cycling addresses a void somewhat. Corroborating these points, Tony makes the following remarks:

“Competitiveness. That is it. That is kind of why I have done what I have done with it. And why I look into the data and the way I look into it. I enjoy that competitive side to it. I haven’t really been experiencing that competitiveness in a sporting activity or leisure activity for a long time. I used to play football. I used to play Gaelic when I was young and I kind of got something out of the competitiveness and I have not had that for a while.”

“I quite like it. I like it because it shifts the mindset. I think about my work and what I do here and whist you can argue there is competitiveness here, it is not the same. It is very different. To me, in a work capacity, my marker, the thing I would put on my door is usually something around collegiality. That is something I find really really important in a work environment. But when it comes to something like cycling, competitiveness is probably what drives me.”

During our interview, the capacity for tracking to compliment his cycling practice in a way that enables his competitiveness and evokes enjoyment is further evident by his facial gestures. As I commented upon during our interview:

“Your face is beaming when you talk about it.”

Tony’s subsequent response suggests his interactions with data and why data is meaningful to him and is able to be empowering is difficult for others to understand or imagine. Moreover, a relatively more creative kind of cycling practice – one

whereby there is an openness merely to the flux and flow of cycling - to whatever emerges during a ride, is not appealing. Rather, a desire for data conceals this:

“...I think it is funny in some respects. I guess because I can hear other people’s comments about what I have done and it makes me laugh. I guess because they think it is absurd...they ask questions, you know, like ‘why do you need all this stuff if you are cycling?’ you know, ‘why do you need spreadsheets, tables, plotting your progress over time if you are just going out for a cycle?’...and actually my response is, I suppose I don’t see it as necessarily just a bit of a cycle. As getting up and going out and having a meander and seeing where you go.”

Naomi, meanwhile, who refers in her interview to occasions whereby seeing activity data can generate a sense of achievement, further acknowledges the capacity for data recorded and made sense of to evoke feelings of pride as well as heighten recognition to activity accomplished. This can be especially meaningful given she notices receiving little recognition when exerting efforts to do stuff in other aspects of life. She remarks:

“As an overall trend, you see that you improved a bit and it’s like, ‘well, great’. You are doing something, and you’ve got the proof that it’s something you can do and be a bit proud that you stuck at it...when you are doing a PhD, it’s like you are not given little pats on the back very often. It’s just a slog isn’t it. You just go in and you don’t get much praise.”

7.3.3.4 Variations in feelings emerging

The preceding sections thus far illustrate the capacity for data interacted with to provoke favourable, and meaningful responses. It is apparent that when interacted with in more intense ways, data can be shared and make people feel part of something bigger. Furthermore, data can be motivating, help with evaluating progress or with planning, be reassuring, or be compensatory for other things remembered to be lacking, for example. The latter is not given much recognition in existing self-tracking literature. Yet, an additional picture begins to emerge when looking differently at diary data. Analysis of data from diary entries recorded over time helps make

clearer the ways that affective responses provoked can vary as individuals, who experience changing encounters each day, actively engage with their data. Trajectories for each individual are unique, as per trajectories regarding newfound actions which emerge. Nonetheless, it becomes clearer that the capacity for data to generate favourable feelings can be limited at times or be contingent on whether data can be recorded. Furthermore, this can be contingent on whether data can enable one to view perceivably good efforts towards goals or see the impact of an activity, for instance.

Interestingly, points in this chapter so far illustrate that activity data can encourage more movement and provoke favourable feelings for participants including Natasha (see section 7.3.2.1 and 7.3.3.1 for example), Yet, as Figure 7.7 depicts, only sometimes are favourable feelings generated. Sometimes instead is the production of less favourable feelings emerging alongside favourable ones. Alternatively, on some occasions only mixed or less favourable feelings emerge.

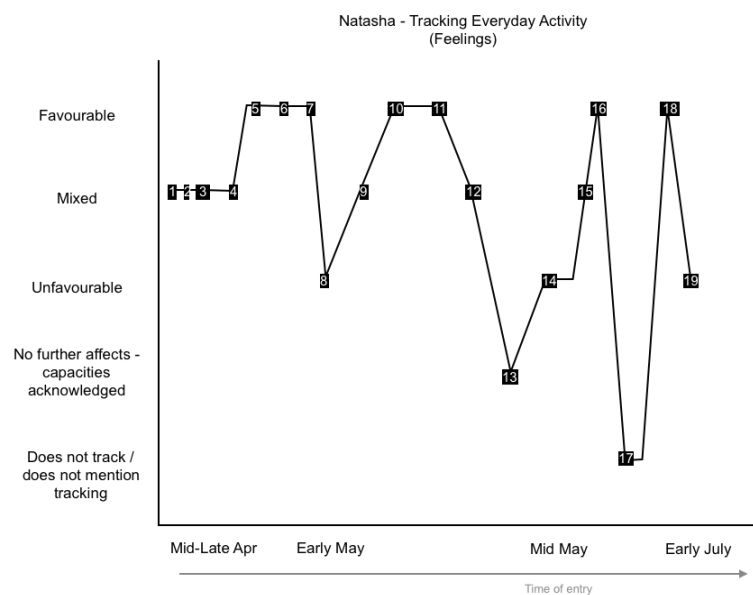


Figure 7.7 A visual overview of feelings generated when Natasha tracks everyday activity

For Natasha, types of feelings provoked can perhaps unsurprisingly, be largely contingent upon whether a challenge is participated in or whether data is being compared with others.

This is not only evident from some data extracts provided throughout the chapter already, but also by the following figure highlighting ways Natasha tends to interact with data over time.

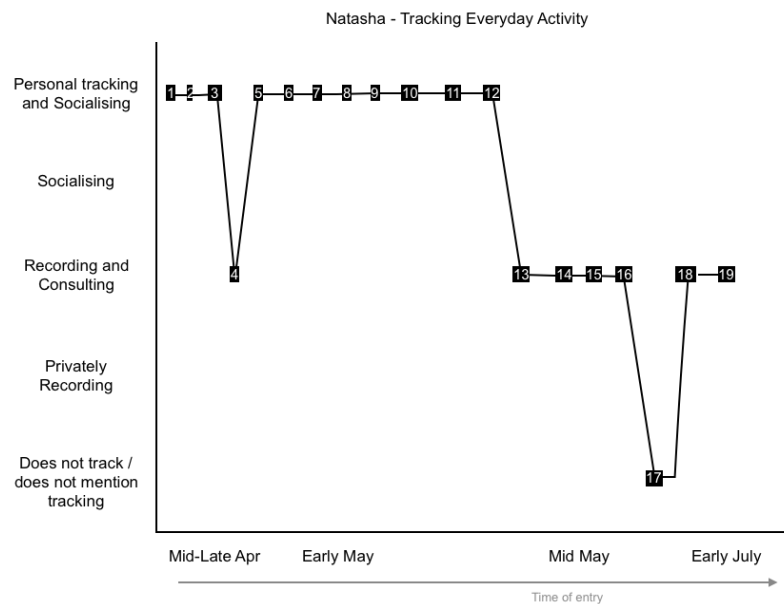


Figure 7.8 Natasha’s interactions with data generated from self-tracking across diary entries

Contra to simply encouraging more movement or encouraging good feelings, data associated with challenges can at times, as part of an ongoing process, become more paradoxical. Data engaged with enables Natasha to do more which contributes towards efforts to become fitter, but simultaneously evokes less favourable or mixed feelings unless subsequent data generated signals efforts exerted that can be perceived to be good enough (i.e. good enough relative to others, exceed goals set, or win badges desired). In entry 1, for example, whereby earlier in section 7.3.2 it became evident that Natasha is compelled to get more steps, Natasha explains that “being a bit competitive meant I felt low”. This is because she did not have the “same (number of steps) or more than my other half”. She also explains “feeling good, through competition which is driving her to exceed “10000”. Meanwhile, in entry 3, Natasha is “happy” to have completed a challenge in 2 days (of which produced is a new desire to try to improve and complete the challenge in 1 day). She also experiences some anger (“grrr”), however, as technological dysfunctions including glitches regarding badges means rewards that “should” be gained are not. This contrasts with other entries, whereby Natasha is simply feeling more “positive” when “top of the leader-board” and when “inspired...even looking at some virtual challenges

online” (entry 6) or is excited when having won a challenge and exceeded her prior step records (entry 10).

Data can further become paradoxical, however, when Natasha consults her data to make sense of her progress associated with walking routes undertaken. Whilst before she tends to equate steps with distance and feels accomplished when reaching numbers perceived as desirable, her consultation of data heightens her attention towards what actions produce more, or less, steps. Whilst she acknowledges it is “good” to reflect, she ultimately becomes confused, prompting her to make remarks reinforcing that how data is visualised/presented is important for ways it is responded to. She makes remarks including: “Am I doing more than what is shown?” “not sure how much I am actually doing”. In turn, this prompts her to re-attune. Specifically, by re-orienting her mindset to focus more on certain data (e.g. distance) to ensure she moves enough and is pleased with what her data communicates back.

Responses provoked can also be contingent upon bodily movement enabled or hindered when experiencing physical bodily constraints such as back problems. In entry 14, for example, it is evident that less favourable responses emerge when only recording and reviewing data, with Natasha remarking: “not even met my 10,000 steps...can feel the slouch.” This contrasts with comments made in entry 16, whereby Natasha makes a connection with the aforementioned entry and instead feels “better”. This is particularly in comparison to “when my numbers where low”. This is further comparable with remarks made in entry 19. Here, Natasha records “feeling bummed” as her back injury hinders what she can do. This in turn provokes her to adjust her goals – an action which section 7.3.2 acknowledges.

Similarly, various diary entries by Carole demonstrate that responses provoked can be contingent upon whether her bodily movement is enabled or hindered when encountering physical bodily constraints. Carole occasionally makes remarks during a follow-up interview suggestive that she believes she does not always experience less favourable affective states if not meeting goals. Nonetheless, Carole records in diary entries feelings including “disappointed” or “frustrated” when illness impedes efforts to move. This is apparent in diary entries 1 and 19 for example. This differs from alternate feelings emerging when moving more and/or beating targets. Feelings include becoming “determined” (entries 10 and 25), “glad” (entry 17), “accomplished” (entry 18), and “motivated” (entry 27) or experiencing a “huge boost” (entry 29). It is interesting, however, that unfavourable or mixed feelings can also still sometimes

emerge despite making efforts to move more. This is evident in entry 11 for example, whereby Carole acknowledges she is “happy to be doing more but disappointed to not hit my target”.

Naomi, meanwhile, runs and is often eager to socialise (as Figure 7.9 reinforces). As well as recording and consulting data, she appreciates sharing data and/or engaging with others’ data by reviewing it or giving recognition. Her diary entries further illustrate ways affective responses may vary (See Figure 7.10).

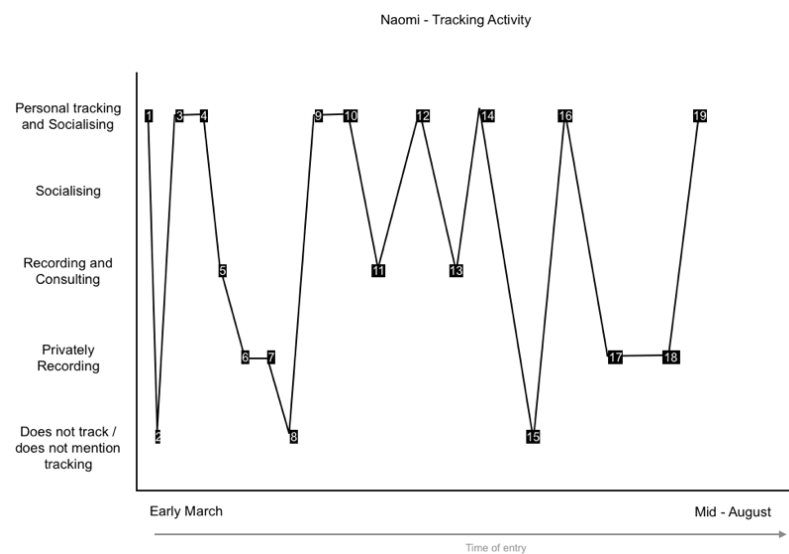


Figure 7.9 Naomi’s interactions with data generated from self-tracking across diary entries

A commonality with participants such as Natasha is relatively less favourable feelings produced can emerge when socialising, and when experiencing technological dysfunctions. Indeed, comparable with comments from our interview whereby Naomi remembers feeling “livid” and having a “bad mood for the rest of day” when a big activity is not recorded, and further resonating with insights suggesting technological failures and the inability to share data can be disruptive or can be a negative affective force (Spotswood, Shankar and Piwek, 2020), comments from entries 3, 4, and 5 indicate that feelings of annoyance can emerge. This includes in cases whereby glitches cause a loss of data and create work in the form of producing additional recordings to share. The sharing of data and recognition received from others is “important” and can produce further (more favourable responses) in instances such as when receiving recognition (e.g., “kudos”), as is evident in entries including entry

4. Feelings which together are more mixed can also emerge, however. As diary entries 1 and 3 make apparent, consulting others' activities provokes feelings of "jealousy" at times when embodied constraints (e.g., "injury") limit physical activity. Nonetheless, consulting own data produced from exercise attempted also provides satisfaction. Similarly, as is evident within entry 9, seeing others' efforts can create feelings of inadequacy – of not doing enough. However, recording at least some exercise and conversing can provide some satisfaction too.

(Diary entry 9) "I felt a little bit bad for not doing Parkrun when I saw on Strava that other people had done it, but then thought it was best I wasn't trying to do a race on my ankle as I still wasn't sure it was up to a pace...it was nice to have a run logged - it was good when people were commenting on the run to ask if I was back into it after injury."

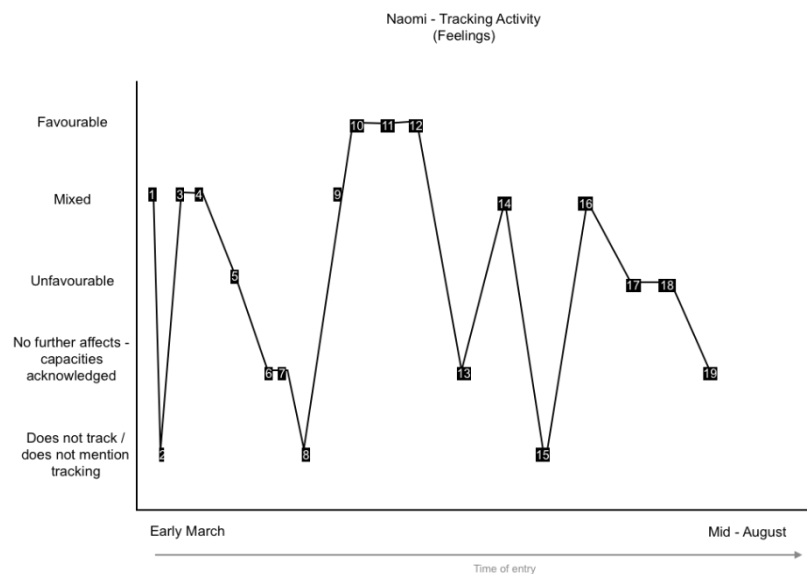


Figure 7.10 A visual overview of feelings generated when Naomi tracks activity

Interestingly, though, it is plausible that for Naomi, the capacity for particular data to produce less favourable feelings is only more likely when affected by problems such as bodily injury. Injury forcefully hinders the potential to undertake physical activity and adhere to stratifying ideals like "showing the best of yourself". Naomi's trajectory at another time would differ significantly, perhaps, if having more days like entry 10, whereby Naomi is "happy to be able to show everyone I'd been to Parkrun".

Alternatively, if having more days like entry 12, whereby the workout assemblage comprises of shooting photos of local surroundings, sharing this alongside data on different social media platforms, and receiving “likes” from others. Moreover, whereby Naomi feels “confident” about training events ahead upon consulting data. Naomi does acknowledge in her interview other ways favourable feelings may be compromised when consulting data. She acknowledges there is potential to feel “governed” when reviewing progress, for example, as this can overshadow merely appreciating efforts to do an activity, transforming the activity from an effort to “get out” to instead an evaluation of “I only did this much.”. Nonetheless, she also makes comments during our interview and follow-up interview suggesting she appreciates tracking as it enables her to see ways one has improved and is something she does not mind “being governed by”.

7.3.4: Data becoming overly compelling can generate tensions

Several participants make comments during the interview which suggest that data does not necessarily evoke a less favourable affective response. Nonetheless, the capacity for data engaged with to provoke less favourable or mixed affective responses, as aforementioned in section 7.3.3, is but one tension that can emerge from self-tracking, along with the potential for data to become distracting (as evident by comments like that of Jamie aforementioned) or compelling. This becomes further apparent throughout this section.

It is interesting that some tensions do become evident throughout data generated from interviews given other striking comments which suggest that participants willing to take part in an interview may be more open to sharing ways they are affected favourably. Rose, for example, remarks:

“I mean I don’t know if I’d be sitting in front of you if I’d got a Fitbit and I was constantly not hitting my goals. Would I be so eager to sit and talk to you? Whereas I find it’s really positive for me at this moment in time and so I want to talk about it.”

Sometimes tensions apparent within interview data tended to be associated more with fleeting or sporadic situations. For example, participants including Penny generally appreciate tracking, but acknowledge times when hedonic well-being is

affected less favourably. This includes when consulting data during our interview and remembering feeling annoyed but also acknowledging “next day is another day”. Penny remarks:

See, that (*scrolling through another day of data after consulting again previous data evoking happy feelings*), I was really annoyed because I was only 200 steps off and I was like ‘grr’, I could have done, just a couple of like, you know, trips to the kitchen or something would have done that. I was like ‘Oh god damnit”

This is further evident from participants who acknowledge particular episodes whereby data becomes compelling and generates actions including further movement. Megan, for instance, thinks she did become “obsessive”. She explains one episode resulting in her questioning more so her relationship with data in ways that other changes generated such as subtle efforts to move more to address her interest in increasing her movement each day did not. She explains:

“When I was staying away for work reasons, I was in a hotel in Southampton. And I realised I had done something like 9800 steps and I literally paced up and down in my hotel room with my phone in my hand, so it was counting it as I was doing it, to get to 10,000. And at that point, I thought, this is stupid, what on earth am I doing?...And I suppose it just went through my head at that point that this was ruling my life. I would have just been better lying on the bed drinking a glass of wine or something and it would have been more relaxing than me trying to beat this silly number. Erm, so yeah, I suppose that is why it was silly, because it was controlling me rather than the other way around.”

On this occasion such bodily practice was enacted when engaging with data in real-time as it appeared within an associated app on her phone. She further questions, though, whether the potential for data to become “ruling” and become something to be sceptical of would have emerged if having had received a more advanced device relative to her “basic” model available through her workplace. Comparable with comments by Carole who does not want to become a ‘slave” to a watch, she questions:

“I wonder whether if I had that interactivity and had been displaying things in an instant way, would I have become even more obsessive, and completely off the rails? I don’t know (*laughs*). It would be easy I think, to allow it to take over your life if you were that way inclined.”

Another example, meanwhile, which conveys further movements away from rest to instead stepping to generate desirable data is that of Fiona pushing herself to achieve a badge which is rewarded upon doing 100,000 steps in a day” (Kosecki, 2017). Though Fiona herself talks enthusiastically and perceives such actions favourably, Fiona acknowledges it is somewhat “obsessive” – the scope for tracking to be obsessive, of which, receives scepticism from some posting online. Fiona makes clear the extent to which the capacity for a badge to afford such behaviour requires planning. From ensuring her son is picked up from school by her husband, to making space to move around in a fridge room “out of the way” from others, she further remarks:

“When I did the Sandals (badge), I planned it. It was the 4th time I had a go at it, because you have got to do it within 24 hours... I initially went to bed at half past nine. I got up about 12, quarter past 12, something like that, and I then ran for about 4 or 5 hours. I did 35000. I then went back to bed for a couple of hours, got myself back up, did another 35000, 40000, then went back to bed again for another hour or two. (And) then I got up, probably about 7 or 8 o clock at night, and then I carried on running until I had done the 100000.”

Other tensions evident within interview data include some scepticism towards feeling dependent somewhat on participation in a self-tracking assemblage to make changes. This is evident from the following comments:

“It’s sad that you need that, for god’s sake, you have to have a gadget to make you do stuff.” (Carole)

“The age group that I am in, we didn’t used to have any of this kind of stuff when I was growing up so you almost treat it a little bit like ‘oh god, I have become reliant on something that didn’t even used to exist.” (Lisa)

Diary data, however, also helps to illustrate ongoing tensions. Evidence of some tensions are interesting when considering ways some participants become affected by self-tracking. Some tensions emerging for participants such as Russell, for example, are striking given his attempts to approach tracking cautiously and limit the capacities of data (see section 7.2.1). To elaborate, Russell sometimes suggests his sense of well-being may not have differed if not engaging with an app during training, as there is generally an “incredibly empowered feeling about just going out and doing some exercise”. Nevertheless, it becomes clear throughout diary entries that well-being can be implicated by whether data becomes overly compelling (or not). In an earlier diary entry, for example, it is evident that attention to numbers pushes him to workout harder and alienates him from bodily sensations including “tiredness” or “twinge in my shoulder”. In other entries, meanwhile, it becomes evident that data ignored in favour of being directed by other material resources (e.g., weights available) and other affective forces (e.g., desire to be strong like other men in the gym working with heavier weights) can be empowering. It can lead to feeling “good” and “excited” to go beyond the rigidity of an app and it can feel “heartening” to focus on own feelings of strength. It also can be a “bad move” and risk injury, however. Consequently, there is the recognition that a sensibility to an app requires further development. Over time, this too can be enhancing, as is evident by remarks such as the following:

“I am sort of pleased about my own sense of responsibility for acting with the app. Like I said in the last entry, I think I am starting to strike a nice balance.”

In rarer cases such as Tina, meanwhile, data becoming overly compelling generates tensions which results in her turning to alternate ways of tracking food (e.g., with a substituted app and with a visual tally chart as advised by a dietician). The visual chart is notably evaluated in our follow-up interview as the best way for contributing to weight loss, whilst the new app is indicated in diary entries to be less inclined to be engaged with as Tina is less receptive to attuning to the different data it generates. This is interesting given Tina’s earlier seeming confidence during our interview that engaging with a food app (alongside going to slimming club meetings) helps “control what I can have” and helps with slimming. To briefly elaborate on the tensions Tina is affected by, it is clear from a series of diary entries that an abnormal heart rate data recording during a swimming activity becomes alarming. Though consulting activity data more over several days provides reassurance, the initial abnormal data realised

results in being “stressed” and “anxious” and consulting a health professional. As is elaborated upon in a follow-up interview, this prompts a new understanding that the abnormal data may have been reflective of not having a “balanced diet”. Trusting and investing in the recommendations of her prior app, of which, may have contributed to this. Tina remarks:

“So, even for example on *WeightWatchers*, carbs are extremely high, so when I started logging everything down on this tally chart, I wasn’t eating any carbs, which would mean when I went swimming, I didn’t have carbs in me which is what you need. I didn’t even realise I didn’t have any because you could eat so much protein and stuff which is all low pointed.”

To provide another illustrative example, diary entries from Lincoln indicate that sometimes data can be motivating and can evoke feelings of pride. It can also feel good when data encourages movement, or it can be enjoyable to share data with others such as his partner. There can be instances whereby doubts start to unravel, however. Like Russell then, there is a sense of trying to negotiate with the app its capacities to be affective (the capacities of the app, of which, tend to remain powerful). This is especially apparent in a recorded entry whereby Lincoln recognises he is driven to move more upon socialising and becoming competitive with others and upon consulting his own data.

“I just wanted to get steps, my partner had told me she had a record of 25000 steps, and I would beat this if I walked further. So I was eager to do that. So I went the long way around. I was only a few hundred steps off then, so I started pacing back and forwards in the house to get a bit higher. So that was a pure sort of, numbers moment. Just get the numbers.”

Albeit, in the same entry, Lincoln makes an effort to convey he is “in control”. He includes an image (see Figure 7.11) which demonstrates he moves only to a certain degree to not meet a further step goal. In one sense, however, this only further shows ways his actions are entangled with numbers.



Figure 7.11 A Step Count Example

His attention towards engaging with his device and data and the potential for tracking with a device and data to become compelling is apparent from further comments he records:

(Diary entry 4, *14 January*) “Imagine you are going through a maze or something, and you want to do it, so you keep walking and walking and at the beginning you are like, yeah, wanna do it. And you are doing it and doing it. You are getting further and further. And then you start to lose yourself and you go further and it just becomes a trudge. You don’t want to do it anymore but you can’t go back...And now you have put yourself in a position where you have lost power...Maybe the Fitbit is a bit like that. I might get to a point where I am so invested...I wonder if I can just put this down.”

(Diary entry 5, *21 January*) “Beforehand I felt like I didn’t need the thing but I am thinking now maybe I do.”

Of further interest is the situations whereby the device is forgotten to be worn, Lincoln resorts to exercising imaginative capacity by pretending he has a device with him to further encourage him to walk and feel “good” and “on track”. Contra to having doubts and trying to negotiate his relationship with tracking then, there is a greater sense of accepting tracking, becoming empowered by it, and trying to negotiate without self-tracking technology.

7.3.5 Devices, apps, and data can become further invested in

Key to self-tracking for many participants is habitual engagement. Several participants acknowledge self-tracking becoming well integrated into everyday routines. This is largely irrespective of how long one has been tracking for. There is a tendency then, for individuals to often ensure they wear devices or connect with apps during training workouts. Alternatively, wearing devices regularly and charging devices at intervals whereby opportunities for data to not be recorded are reduced. The following comments exemplify this:

"It has become an everyday item that I always wear, so definitely a very inclusive part of my life now." (Ethan)

"I always tend to wear it." (Penny)

"I charge it overnight, I don't charge it in the day, it is always on me."
(Lisa)

"I think to some degree you become dependent on it just because it is your routine. Its auto-pilot – right, I am going for a run, set the watch."
(Jamie)

Data is often recorded and consulted, then, and in various instances, socialising also occurs. Noteworthy though is that there is scope to acknowledge that there is potential for discrepancies between what a participant says (such as during interviews) regarding their general interactions with data and their interactions as actualised (as evident from diary recordings). To exemplify, Danny states during our first interview that he consults data on his device "a few times a day". Nonetheless, after recording diary entries, Danny comments in our follow-up interview that he does not interact with his Fitbit "as much as I thought".

During interviews, there are even some occasions whereby participants acknowledge having limited capacity to imagine a future that does not comprise collaborating with self-tracking technology.

Ethan, for example, comments:

"It would be hard to imagine not wearing it now because it is quite important to my routine."

Whilst Naomi says:

"I don't think you could take it away. I think like, it's important to know the numbers now."

Moreover, Penny remarks:

"I can't imagine not having it now, to be honest with you. I think if this one died, I'd have to replace it...I think once you have got into that kind of habit, then it is going to become hard to get rid of."

Indeed, diary recordings capture Penny replacing her device with a Fitbit Flex 2 after having 'felt a bit lost not having my Fitbit for a couple of days' and recognising she is a "creature of habit" when her existing device no longer syncs data properly.

For some participants, not tracking can provoke affective responses indicating a compulsion towards wanting to track to enhance well-being. Lisa, for example, says:

"I feel a little bit bereft if I haven't got it. I can quite happily wander off without my mobile phone but not without my Fitbit. If I go for a walk and think I have not got my Fitbit it makes me a little bit sickly."

Similarly, Skyler, who forces herself to not track at times to push the boundaries of her experience and experimental project, explains:

"I really hate it when I force myself to not track, like I get sort of, withdrawal symptoms. I need a number. It doesn't matter what the number is...but I like having that knowledge..."

Going on to explain further what withdrawal symptoms can comprise of, she remarks:

"I was just conscious of this lacking, looking for numbers and looking for feedback...I just felt like I was missing something. And I was lazier and then I would be thinking 'you shouldn't just be lazy because you

haven't got the technology prompting you' so then I would be trying to make myself do stuff, and then I would be really disappointed that I did not have the number...I am quite self-reflective and I know this is all kind of silly, but I prefer it when I have the number and I have the technology."

Feeling an attachment to her technology and data, then, Skyler also has limited capacity to imagine not tracking further, stating:

"I have tried to detach myself, but I can't see how I am going to get away from it. I don't want to...I can't imagine a time now where I don't (have it). It's like trying to imagine yourself not having a smartphone or going back to dial-up internet or something. I just can't imagine now going back."

Rose, meanwhile, says the following about tracking with a food app:

"I think if you pulled it away from me, yeah I would be upset, but I would find something else. I'd *have* to find something else."

For many, then, there is seemingly a limited desire to "escape the relentless march of the digital" (Humayun and Belk, 2020, p.633). This is despite arguments that consumers seek to break away from the enchantment of the digital and turn instead to analogue consumption (ibid.). Nonetheless, it is evident that some participants do enact strategies - described here as negotiations - when self-tracking. Negotiations involve temporarily or partially escaping (Humayan and Belk, 2020). Energy becomes directed to limiting the capacity for a particular device, app, and data generated to be affective. The limited capacity for a device or app and data generated to affect may only be short-lasting until a re-territorialisation occurs. Alternatively, it may be longer-lasting.

Negotiations that may be involved when food tracking can, in cases like that of Rose, include deliberately dismissing tracking food on a particular day (e.g., "Saturday") or when going on holiday as this is "time to relax". Regarding activity tracking, meanwhile, negotiations producing short-lasting limits can include becoming less attentive to recordings of data. This is especially evident amongst participants participating in activities including running or cycling. Jeremy, for example, engages

less with data on easier runs. Similarly, Jamie engages less with data on easier runs and consults data more during “harder sessions” including track sessions whereby his coach “sets up times to run the 800 metres in and stuff like that”. Danielle, meanwhile, avoids the temptation of viewing data during some runs, enacting strategies including “hide(ing) it under my sleeve”.

Participants including Tony make comments indicating other ways negotiations occur. Tony is committed to self-tracking. Though he recognises a period of time whereby he became “annoyed” watching numbers frequently (reinforcing the scope for less favourable feelings to emerge in given moments), he generally has come to enjoy tracking, and finds consulting data “addictive”. He acknowledges having a “close relationship” with his technology and data, and, if anything, “probably will end up using it even more in the future.” He anticipates not being able to ride without some degree of certainty about what he is doing as this would affect the data. He states:

“Yeah, part of me would like to just go with the flow and I think yeah, but actually it increases an anxiety in me on a deep psychological level. Even then, just thinking about going out on the bike without a route in mind, I have to take a breath *laughs*. I couldn’t do it, I couldn’t.”

Nevertheless, he also is attentive to taking a “break” from data at times during bike rides. This notably enables alternate connections with the outdoors to open up. Tony makes remarks indicating the scope for other passions to be embraced when taking a break:

“There is a guy I cycle with on a Sunday morning, well most Sunday mornings, and we always have a bit of a laugh over one of my passions which not many people know about (*laughs*). Bird watching. So that is one way I would break up my concentration of the numbers. Through listening for bird call, watching for different birds, and I will always make a mental note of the birds I have seen as I am out.”

Examples of negotiations whereby data has limited capacity to be affective for longer, however, are evident by participants including Megan and Russell. Notably, both participants experience tensions as aforementioned section 7.3.4. Megan, for example, says she “kind of fell out of love” with her “basic” device which also generates data evoking some obsession. She explains that she started wearing her

device less before rapidly turning towards “ditching it completely” after around 6 months. Russell, meanwhile, pulls away again from his app after nearly 9 months. One way he describes the process of de-territorialising from his app (which is interesting considering remarks aforementioned by Megan) is as one whereby it is the “dying throes of the romance with the app”. This is whereby he continues engaging with data despite being aware that it is not “tenable in the long term” until eventually “derailing”. An alternate way he describes the process is as one whereby there are efforts to associate the app with having greater meaning. Especially when discovering a feature of the app enabling him to consult data over a longer temporal frame. This engagement does not pertain, nevertheless. Russell remarks:

“The other way you could look at it was that I was trying to look for the app to have a greater meaning. It had to matter beyond the app. That was kind of interesting...Now it was describing something about me that was changeable. That seems to be a much more authentic description of me than these little time slices. I am in a series of given moments 3 times a week, at most. But I don’t think that feature could have ever kept me with it because this realisation that the gym is not for me has been slowly becoming for a long time.”

Notable, however, is whether there is potential to re-emerge from a self-tracking assemblage (as evident by Russell when first re-starting engaging with the training app). Comments from Megan, who acknowledges feeling more “relaxed” when not tracking, suggests her wearable device and the data that can be co-generated can remain affective. Despite the object being resigned to her “drawer”, she still contemplates reintroducing it for another more advanced model with the capacity to track additional intimate aspects of life. Notably, she contemplates this after seeing the recruiting advertisement for this study. She remarks:

“At some point maybe I would see whether anything has changed. And that might be interesting because my life has just changed quite dramatically in the last few weeks...it is not at the top of my mind, so I probably wouldn’t at the moment...but it is still kind of there in the background and at some point we might get back together again.”

However, despite memories of previous tensions experienced when tracking, Megan is “cautious” because she has limited capacity to anticipate the affects of a new device

unless she starts tracking. She therefore avoids appeasing her interest in tracking so that she does not have to “worry”. She makes further comments suggesting the diminished likelihood of establishing new connections with self-tracking technology:

“Every time I start looking at them, I think ‘this is a road to nowhere’. It’s a whole new set of things to become obsessive about. And I am just kind of pulling back from it at the moment because I am not sure it would be sensible.”

Russell, meanwhile, who now has repeatedly de-territorialised, makes comments suggesting the capacity for a self-tracking assemblage to be established again is weak. He comes to recognise further ways self-tracking with an app is counter-productive for him. For instance, considering Russell’s initial desire to get better at JuJitsu (see section 6.3.4.1), and considering comments regarding “the experience of feeling stronger than you were two weeks ago is perceptible and powerful and meaningful”, Russell finds he actually ‘alienated’ himself from his sport to the extent that he was actually “missing JuJitsu” because he felt “gassed” (tired) from all the weightlifting exercises he did. Russell evaluates the quantification of his well-being as “blind” and now is instead in a transition towards alternate ways of living previously overshadowed by tracking. Further remarks convey this:

“I live a lot more organically now. I exercise how I feel. I just do what I like more, and not what I scheduled to do more.”

“I am happy spending more time just being. Less time worrying. Less time trying to achieve things. And more time being. In this context that specifically is as, fuck, I really love JuJitsu, why am I in the gym counting the number of pounds or kg that I can lift up, for Jujitsu, when I just want to be playing JuJitsu?...I love it, honestly, and I am so good at it now. I have sprung forward in ability. The weights training was doing very little for me.”

The emotive language he uses is indicative of joyful encounters being ignited.

7.4 BECOMING-OTHER: AN OPENNESS TO FURTHER EXPERIENCES

As the preceding section demonstrates, participating in a self-tracking assemblage can, contingent upon the context, prompt welcome changes that influence well-being favourably. Yet with some exceptions (e.g., feeling included, finding things to do), many changes (or rather, affects, and capacity to do things) produced are often still relatively limited and rather rigid (McLeod, 2017), territorialising individual bodies as increasingly disciplining and focused on planning, motivation, competition and mastery, achievement, being happy with weight or physical health, creating familiar routines if able, and so forth. As is also evident from when some individuals (such as Tony or Russell) de-territorialise from a self-tracking assemblage, affects including connecting with surroundings or feeling a greater passion and excitement can be concealed or overshadowed when focusing on data.

Coinciding with other authors (e.g., Leith, 2016) who direct attention towards what else can be done, this section now goes on to present findings illustrating other exciting changes that can be realised when participating in a self-tracking assemblage. These changes entail individuals venturing out and unlocking new vistas (Buchanan, 1997). They contribute to ways well-being is advanced. To put it differently, self-tracking enables individuals to become open and attentive to re/establishing new affective connections which increase ones' power to act. This section does not overlook rarer changes mentioned. These include greater attention towards participation in seemingly trivial ("silly") caring rituals such as "putting moisturiser on my face", as is the case for Carole, when moving more and becoming increasingly attentive to making changes. This section, nevertheless, proceeds by focusing on further ways new vitalities are ignited and ways connections with other human and non-human are appreciated.

7.4.1 New energies ignite

Apparent across several participants is a renewed invigorated energy to do new things when experiencing favourable feelings from either consulting data, socialising with others who track, or from achieving particular goals such as moving more and/or diminishing fat. This shapes well-being in ways often previously unanticipated and in ways which vary across participants. Participants including Jeremy, for example, can experience favourable feelings when sharing data and socialising. Nonetheless, he

can also become increasingly attentive to doing new, “cool” activities going beyond his initial goals when participating in a social self-tracking assemblage whereby he engages with posts from others on social media portraying significant milestones achieved. He remarks:

“My friend (name) did a race to the King’s the other day and I have been running with her down in Bath and she’s much slower really, slow marathon times, slow half marathon times, but she went and did it, and you know, with ultra’s you seem to run a bit then walk a bit, go up the hills, down the hills, then you run, stop and have some food, and then carry on, but you are still doing 53 miles in a day and she’s done it. She did race to the stones the other year, Kings this year, and you think, if she can do it, it is making me want to do one. I am thinking Liverpool to Manchester, it would be quite a cool thing to say you run from Liverpool to Manchester...But it is seeing other peoples. So, she shared her run and I suppose that is the data from her run and that is inspiring me. I want to do that.”

For Shauna, meanwhile, a newfound “confidence” is unleashed from connecting with and engaging with, her device which expresses powerful meaning to her. Indeed, she associates her Fitbit with a spark to find new activities to do. This is perhaps not only a surprise to herself, but to others too, and is something she is now very enthusiastic for. This contrasts with her limited willingness to participate in physical activities before self-tracking. Shauna explains:

“It is like being a gateway to doing other things. It has enabled me to give me the confidence. When I have got the Fitbit on, I am like a different person and you can see your confidence grows and you can see you are a lot better at everything... It has definitely given me the confidence. Before I was a bit of a “oh well”. I wouldn’t go anywhere. Not because I couldn’t, I mean, I do need somebody with me, I am in a wheelchair, but if my sister in law had have said to me ‘right I have found an exercise class for me and you, should we go’ and I’d have gone ‘no’ and she would have gone ‘why not?’ and I’d have said ‘Oh I don’t know. I just didn’t want to go. Whereas now I am ringing up saying ‘I found this, do you want to go? And she will say ‘yeah’. And now I fancy doing burlesque dancing. We are going next week. I can’t wait.

And my sister in law is going 'you are really going burlesque dancing?'.
You are sat in a chair, dancing in a chair, it sounds absolutely perfect."

Shauna elaborates by explaining she "wouldn't have dreamt of doing anything like that" previously (reinforcing the idea that her horizons have expanded). Notably, though, her ability to partake in such events is contingent upon other components including financial resources (e.g. money) available, since the dancing sessions cost "5 pounds". Likewise, entry to races Jeremy is interested in entail a monetary cost.

Lucy, who notably feels genuinely happier, becomes open to exploring new opportunities which she feels can also strengthen bonds with others. Lucy explains:

"I think it has also kind of in a way strengthened my friendships. Because I have a friend really into fitness and before we never really had anything to chat about. We would be down the pub and it would be like "oh ok" and now I'm like "so this yoga you did, can you teach me?". It's making me try more things...I don't know whether that is because I am happier with my body size and things like that. So I am pushing myself out there and trying new things, whereas before I wouldn't be seen dead in yoga pants."

Participants such as Rose, meanwhile, who also comes to enjoy cooking homemade food more as a result of food tracking and seeing its content in her app, become open to exploring connections with other paraphernalia (e.g., podcast apps) to listen to when exercising. Notably, Rose would "probably not" be connected and engaged with as many otherwise. Rose remarks:

"It (tracking) will make me get off my backside and not sit there and watch 4 episodes of Big Bang Theory. I will actually get up and go for a walk. And half an hour is often all it takes but I will do it. And it's made me listen. Because I walk in the streets, I listen to more podcasts, and stuff like that. So other little things come into it, like ok, what am I going to listen to on my walk, and all that... rather than listening to just the same music and that. Yeah ok, podcasts. And I'm constantly finding them and wanting to listen to."

As evident from Rose' remark, her activity is still somewhat enshrouded by instrumental objectives (moving more as prompted by tracking, relative to rest, or, alternatively, being a couch potato actively duped by television content [Kozinets, 2002] for instance). Yet, her walks can be transformed as finding new podcasts she is unfamiliar with encourages her to listen and to keep exploring new entertaining articles to listen to.

7.4.2 Appreciating connections with others within spaces navigated

Participants including Fiona, who are also motivated to walk more (and, as evident from prior examples in this chapter, can often exert significant labour to compete well in challenges) further recognise there is “more to life” “than stripping beds and ironing” (at the guesthouse she runs). Pertinent examples illustrating this include occasions whereby Fiona acknowledges connecting more deeply with her surroundings and others also navigating surrounding spaces. Fiona makes remarks including:

“I really looked, really looked at the fact that we live here...because it is beautiful. I had forgotten, because I hadn't had the time to look at it. I wasn't interested enough to look at it. And I started walking back over the Orme and understood why the guests had come to do a lot of walking.”

From such comments alone it is clear that Fiona's mindset transforms, and she is increasingly appreciative of her local surroundings. She commits more time to what nature has to offer and focuses beyond metrics. This is further evident, nonetheless, from Fiona's sheer enthusiasm to share the landscape, as she points out different routes that can be taken after the research interview ends. The scope to increasingly connect with others is further evident from other comments Fiona makes. To elaborate, Fiona shares images including one of her and two friends (this is not included here to maintain anonymity albeit its content is described in Figure 7.12). She explains she met the two friends through socialising in challenges created within the social media group she is a member of (reinforcing again the scope for plugging into online platforms to enhance well-being by extending social circles). Together, they meet interpersonally and walk Mount Snowdon. Using emotive language, Fiona goes on to describe walking the mountain as not only “magical” but “BRILLIANT” when navigating with others.

Three friends, two of which are wearing hats and glasses, stand together. They are facing the camera and smiling. In the background, are hill peaks, with two overlapping clouds hovering close to the hills.

Figure 7.12 Description of photo content provided by Fiona

There are also greater opportunities to enjoy sharing moments with others. This is the case for participants including Shauna who is “hooked” to her device and its data and is more inclined to do an activity when able to track it. Whilst an activity Shauna is motivated to do may still be enshrouded by the desire to quantify it, her motivation can also be heightened by her attention towards the affective states generated from partaking in a class. This includes feelings of having fun and feeling a sense of belonging. Indeed, before exploring options such as Burlesque dancing as aforementioned in section 7.4.1, Shauna finds direction by attending Zumba classes whereby the rhythm of the class accommodates for her ability (Phoenix and Bell, 2019). By partaking in an inclusive class (relative to one whereby Shauna feels stigmatised), Shauna appreciates spending time with others and having “quality time” with family members who join in. Shauna further remarks:

“I like to Zumba in my wheelchair...And I do a lot of erm, even though I am not at that age yet, I do a lot of over 50’s exercise classes because they are at my level, and they are seated, so I can still sit down in my wheelchair and I don’t feel out of place, whereas if I went to a normal class, because I am in a wheelchair, I tend to feel a little bit out of place...but me and my sister in law tend to go for the over 50’s and I think because they are all there with their own personal issues and personal battles, they tend to sort of be like ‘aye you are one of us ‘r kid, come on, let’s join in, and we have a really good laugh.”

Carole, meanwhile, also demonstrates well-being can be intertwined with other social encounters which stem from (thinking about) doing more. In addition to being step-driven by doing things including interacting with her step-aerobic equipment at home, Carole notes occasions whereby she is attentive to being more present with others. This differs from being previously overcome by “baggage” and lethargy. Efforts to be present with others include making more appointments to visit friends for lunch and

“getting out” – something she evaluates to be “huge”. Alternatively, making time to go outside, and give attention to encounters between herself, others, the weather, and so forth. Carole makes further remarks comparable with others aforementioned in section 7.3.2. This includes remarks depicting an openness to encountering other infrastructures and social bodies which can help with overcoming baggage:

“If I’ve got a gap in the day, now I will make myself go to the post office. So it’s that little thing, just that stepping there and back, and just getting a bit of fresh air and smiling at something, interacting with somebody or something.”

7.5 A FURTHER COMPLEXITY: FLUCTUATIONS BETWEEN ASSEMBLAGES

This section now turns towards emphasising how participants can move between different assemblages which become relevant to the turn towards or away from self-tracking. This section also directs attention towards ways well-being emerges as participants move between assemblages and self-track (or not). In doing so, this section helps to reinforce themes presented thus far. Moreover, McLeod (2017) suggests movement between assemblages may be apparent from past occasions remembered or occurring during the research process. Findings presented here are based on recordings from diary entries which also help to indicate this. Going further, findings presented here also demonstrate the potential for further future movement between assemblages and new experiences of well-being when self-tracking technologies or data generated remain affective.

7.5.1 Ways tracking contributes to well-being when fluctuating between assemblages

Ways self-tracking contributes towards experiences of well-being can change as individuals move between assemblages. This is implicit already in some sections aforementioned. The capacity for engaging with data to provoke actions such as moving more to boost fitness varies for participants such as Carole when suddenly affected by things constituting an ill-health assemblage, for example. Transitions between this and becoming more tightly organised by metrics often occur. Similarly, self-tracking data can be limited to validating activity or can enable further capacities such as adjusting bodily movement to achieve goals contingent upon runners transitioning between wanting to boost activity and doing leisurely runs to move closer

towards becoming-fitter and emerging from a training assemblage comprising specific timed workouts. Further data generated during the research illustrate the potential for moving between assemblages, for interactions with self-tracking objects to change and be renewed, and for well-being to change in various ways as such flux occurs. This chapter hereafter provides illustrative insights.

7.5.1.1 As evident from reflections on the past

The scope for self-tracking to contribute to well-being in varying and multiple ways depending upon given situations is evident from remarks made by participants when acknowledging prior experiences of tracking. This is apparent somewhat when events relevant to participants such as Andrea are alluded to. As section 7.2.2 acknowledges, a prior app engaged with to track food was more helpful for slimming. This is evident from comments other participants make, nonetheless. Joanna, for example, generally interacts with a food tracking app in a way that is relatively experimental and suits for when navigating everyday life. She also engages in activities focusing on physical performance, however, comprising what can be articulated as a training assemblage. Whilst Joanna mostly now does weightlifting, she previously has done trail running, and been affected by tracking in meaningful ways. She has experienced an enhanced sense of confidence about choosing foods to consume which can enhance performance, for instance. Joanna remarks:

“This is always a funny one as well, so when I was racing, I would consume quite a lot of sweets for example, which people would consider really unhealthy or why are you eating sweets when you are training and stuff? But actually, when I add in 40g of carbs in to my workout, and I want a glucose source, that is giving me it. For performance benefits I don’t fatigue and stuff like that. And so, I think tracking also became a way of justifying why those things were what I needed to do and why they worked for me.”

7.5.1.2 As evident from ongoing reflections

Another exemplar comprises data generated with participants such as Danielle, who partakes in diary recording throughout the time of the study. As apparent from insights drawn upon in the preceding chapter, Danielle partakes in activities such as running and receives a *Garmin* to help her move closer to particular running goals. It becomes

evident from the time that Danielle commences recording diary entries that a bodily injury (“bad back spasm”) constrains Danielle’s bodily movement, however, functioning as a disruptive force which makes her become attentive to taking a break from running and focusing on recovery. Consequently, Danielle shifts her mindset and sets “new goals” – goal setting and looking forward being something Danielle feels is important for good well-being.

Specifically, Danielle decides to restart “body weight exercises, albeit “carefully and controlled” (indicating an openness to the formation of an alternate training workout assemblage). A food app which Danielle has previous experience of tracking “religiously” with or dipping “in and out” when concerned with a slimming body also becomes significant again in response to new limits. This is especially as she perceives it a good time to “shift those few pounds I put on over Christmas”. She explains that since she is not going to be running as frequently, it is opportune to log back onto the app and readjust settings by reducing calories to be consumed. Attuning with the app, then, Danielle becomes part of a new food-tracking assemblage whereby the intention is to track food “strictly for a month or so” in attempt to “shift those few cm round my hips!!”. Notable is new affective capacities emerge from establishing a renewed connection with a food app at this time. This includes an enhanced sense of control which offsets the lack of control sensed from running activity becoming constrained.

Even early on during diary recordings, however, is it evident that disruptions to food tracking occur, threatening temporarily the stability of the new slimming body-food tracking assemblage. Special occasions including attendance at a work conference with different foods served including “lots of cakes on offer” is but one event whereby Danielle turns to negotiating with the app. She chooses to “trust my judgement” rather than be “hung up” on numbers at the event and only later logs food when cooking dinner. She is “pleased” to have remained within her calorie goal set as a result of making a light tea, but does acknowledge the scope for tensions to emerge if having exceeded the expectations set by and agreed with the app. Another event – her daughters’ birthday – whereby a buffet of food is served is but another occasion whereby tracking is abandoned altogether. Acknowledging again the scope for tensions to emerge, Danielle suggests in such situations that not tracking is helpful. To track may lead to a “sod it mode” whereby I may have eaten more because I was already over on calories”. Not tracking is a “positive move away from potential self-destruct mode”.

After reconnecting with the food app and after days whereby provoked is actions including better planning foods to be consumed (as section 7.3.1.1 acknowledges), or as is the case a day later, regaining some control upon deviating somewhat from plans, further disconnections occur. This time, after re-starting running and emerging once again from a training assemblage whereby data generated with the Garmin is interacted with to help adjust movement and run faster. Specifically, after becoming motivated by a *Netflix* documentary regarding running and doing a personal half marathon (acknowledged in section 7.3.2.3) and after receiving validation of having “burnt over 1000 calories”, the role of Danielle’s food app shifts. It shifts from encouraging her to keep within calorie goals to instead giving “permission to eat lots!” and then becoming backgrounded. A “day off” tracking food extends to the day after as Danielle negotiates between logging and instead refocusing attention to the sensations of her running body such as “achy” and “Starving!”. She explains that rather than track she instead “listened to my body call for food ☺”.

Though reconnecting with the food tracking app once again and renewing her focus by being attentive to being “good”, “accountable”, and wanting to avoid “losing accountability and goals slipping away” (this itself suggesting the scope for struggle), Danielle’s engagement with a food-tracking assemblage remains turbulent throughout later diary entries. The capacity for the app to help foster well-being by helping one slim and feel a sense of control becomes further restricted, then enhanced, then restricted. This is due to other relations assembling. To elaborate, Danielle decides to “take time off tracking” when “bored”. She is hopeful she “won’t pile the pounds back on” and in turn experiences well-being in alternate ways such as by enjoying treats like a “glass of wine, piece of cake, and cappuccino (laugh emoji)”. This is when taking a respite. She turns to interacting with the app again (albeit in a less focused way) and asserting she will “absolutely keep engaging” as it’s a “slippery slope not to”. She feels she is “back on track” but then derails and feels “guilty” for not tracking and over-eating. These are but a few examples.

Towards the end of the diary entry recordings, it is apparent that tracking with a food app strictly as intended has not been possible. The capacity for certain foods to be tempting can be overriding, especially when facing circumstances including experiencing other bodily affects such as “tired” when also emerging from a training assemblage. Attentive to her body, Danielle recognises she is becoming-bigger (“definitely putting on weight”). In response, Danielle becomes open to engaging with

alternate options to help be “accountable”. “As if by magic”, Danielle finds a “back to basics challenge focusing on basic good eating and short sharp HIIT workouts” on a Facebook forum she revisits.

Rather spontaneously then, new connections emerge as Danielle buys an e-book to help “remind me not to overeat or snack”. Affective capacities emerging including feeling “focused” and “determined” result. This is important given later comments recorded. For example, once emerging from a training assemblage again, Danielle partakes in a “brutal 5km race” and shares her “winners photo” on social media for “likes”. The photo generates recognition from like-minded others, which is meaningful. However, the photo, like others in the past, also provokes body concerns to flare. Danielle remarks: “over analysing my winners photo and looking at my belly and hips reminded me I’m trying to shift a couple of pounds STILL”.

7.5.1.3 As evident from anticipations about the future

Ways self-tracking might contribute to well-being can also be contingent upon the scope for significant change in circumstances in the future. This is implicit in comments made by participants including Tina, for example. Ways tracking activity can be meaningful include data clarifying levels of everyday activity and being able to see ‘progress’ when consulting data regarding particular physical activity sessions (e.g., swims). Tina, however, looking ahead to the future, also anticipates the potential for data regarding swimming activities to function as meaningful memories. Contemplating the potential for further becoming framed by ill-health and having capacities limited, Tina remarks:

“I think what is motivating me now to do as much as I can is because I want memories. Because if I get pain like this then I can’t do anything, I am just sat at home with what? So I suppose it’s making me memories for myself...So I now know I have swum so many lakes. So when I sit at home in say 5 years time if my knees are completely gone, I have got memories. Can you remember when we did that? When we did that”

7.6 CHAPTER SUMMARY

This chapter has presented insights relevant for addressing research questions 4, 5, and 6. The insights enhance an understanding of ways experiences of well-being are influenced by the formation or fragmentation of alliances between individuals, device or app, and data. Notably, the chapter has focused predominantly on insights associated with tracking food or physical activity. Additional findings were generated within the study regarding sleep tracking. Significant changes can be generated from sleep tracking, but it is notable that there is a strong sense both online and within interviews that for several individuals sleep data has limited capacity to be affective beyond being somewhat “interesting” to visualise. Hence, whilst not intending to overlook that this is insightful in itself, concerns with space have led to dedicating insights to food and activity tracking within this thesis.

CHAPTER 8: DISCUSSION

8.1 INTRODUCTION

The study aimed to explore the ways that self-tracking contributes towards experiences of well-being for general members of the public who are interested in self-tracking technologies associated with health and/or fitness. To do so, attention was given to ideas associated with an assemblage perspective – ideas gaining traction in CCT. In particular, attention was given to how self-tracking assemblages establish. Attention was also directed towards affects and capacities emerging from interactions between individuals, their devices or apps, and their own or others' data generated. In light of the findings illustrated in chapters 6 and 7, the fundamental purpose of this chapter is to address Research Objective 4:

RO 4: To examine the theoretical implications of such insights for contributing to academic coverage of well-being and academic coverage of complex relationships between human and non-human. Furthermore, to examine practical implications.

To achieve this, this chapter revisits the research questions (which are reiterated hereafter). Revisiting Research Questions 1 and 2 reinforces the value of the study. Drawing upon insights relevant to Research Questions 3 to 6, meanwhile, provides an opportunity to elaborate on what has emerged and establish connections with the relevant academic literature. In light of the importance of Research Question 7, this chapter directs greater attention to the theoretical implications of insights corresponding with earlier research questions. This is an important precedent for elucidating contributions to theory. This also serves as an important precedent for later examining practical implications. Highlights include offering a complimentary model, the first to illuminate well-being as *relational*, *synergistic*, and *in flux*. This chapter further reflects on methodological implications.

RQ 1: How is well-being and self-tracking understood in existing literature and what opportunities for exploring well-being as less individualistic can be built upon?

RQ 2: How can exploring ways well-being is experienced for self-trackers effectively contribute to relevant research associated with CCT which focuses beyond consumer agency?

RQ 3: What human and non-human components influence individuals to start interacting with health/fitness wearable devices and integrated apps, or standalone apps?

RQ 4: How do individual's interact with self-tracking technologies and (how) do interactions change across circumstances?

RQ 5: How do individual's interactions with self-tracking technology contribute to ways that well-being can emerge?

RQ 6: How do new well-being possibilities (opened up/concealed/overshadowed) from self-tracking compare with what individuals experience when not self-tracking with particular health/fitness wearable devices and integrated apps, or standalone apps?

RQ 7: How do the qualitative insights produced develop our understanding further of well-being as emergent and relational and what are the implications for practitioners interested in promoting well-being?

Figure 8.1 summarises the structure of the chapter.

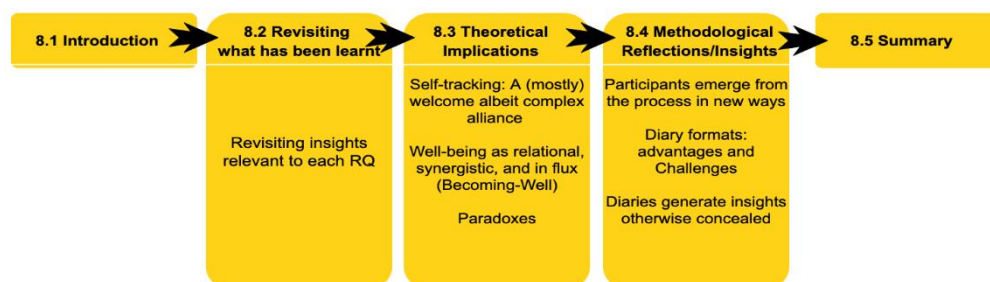


Figure 8.1 Chapter 8 structure

8.2 REVISITING WHAT HAS BEEN LEARNED

This section revisits the insights generated throughout the study that correspond to the research questions.

8.2.1 The value of exploring well-being in light of self-tracking

Research Question 1 invites a focus on the ways well-being and self-tracking receives coverage in existing academic literature. Research Question 2 meanwhile, seeks a better understanding of the value in exploring well-being in light of self-tracking for contributing to a body of work associated with CCT which moves beyond ideas of a sovereign, agentic individual who determines interactions with the physical and digital world (Belk, 2014a) and instead directs attention to the fruitfulness of exploring interactive relations between humans and non-humans. This is worth reiterating. As Geletkanycz and Tepper (2012) argue (albeit in the context of publishing within an academic journal), revisiting the broader existing theoretical challenge is a helpful reference point when later illustrating the progress made addressing significant issues.

8.2.1.1 Opportunities for exploring well-being as less individualistic

The introductory chapter (see section 1.2) conveys that well-being is important within consumer culture, yet well-being coverage is few and far between in the literature focusing on consumer-cultural oriented issues. Chapter 3 demonstrates further that there are limits to the exploration and interrogation of well-being since there are dominant assumptions regarding what constitutes well-being and how it is enhanced. This is despite multiple theories surrounding well-being which contribute to a picture of well-being as complex and contestable with no unified definition (Carlisle and Hanlon, 2007a; Gillet-Swan and Sargeant, 2015).

Some literature adopts the view that well-being is a measurable internal state. Alternatively, literature typically depicts well-being as something that can be influenced by the predominant efforts of an individual. Changes that can resemble that of hedonic well-being (e.g., feeling good; minimising pain) or eudaimonic well-being (e.g., engaging in meaningful activities; achieving goals; connecting with others; fulfilling potential) are often depicted as changes resulting from the

endeavours of a reasonably motivated and determined individual. Alternatively, such changes are depicted as the result of the endeavours of a responsible individual who engages with particular discourses and practices. To requote Sointu (2005), well-being is hijacked as a “normative obligation chosen and sought after by individual agents” (ibid, p.255).

Only more rarely (and recently) is their explicit attention to well-being as emergent and relational. That is, as forged from interactions encountered between human and non-human entities (Atkinson, 2013; McLeod, 2017; Smith and Reid, 2017; White, 2017). This latter form of thinking does not necessarily deny individuals’ (perceptions of) agency. It does nonetheless, acknowledge that others within an assemblage have the capacity to be affective and produce new actions (McLeod, 2017). Authors including McLeod (2017) are particularly in-depth. Drawing upon ideas associated with Deleuze and Guattari (1987), they dedicate a book to ways well-being is emergent and relational in contexts such as depression. As chapter 3 further highlights, however, there is a reasonably novel opportunity to further explore how well-being is emergent and relational. There is scope to explore how well-being becomes enhanced, or otherwise, in new domains.

8.2.1.2 The rich potential of exploring well-being and self-tracking from a relational perspective

Self-tracking is recognised as a particularly opportune area for further exploration. As the introductory chapter acknowledges, scholars including Hoffman and Novak (2015) suggest a relational approach can be useful for exploring interactions with technological objects such as self-tracking devices. They argue that devices such as these can become meaningful and affective. Furthermore, (digital) technological objects (including those associated with self-tracking) are of growing interest to scholars interested in consumer culture. Cochoy et al. (2017) asserts that “contemporary consumer culture is increasingly saturated by the digital” (ibid, p.1) and digital technologies pervading our lives (including self-tracking technologies) require greater attention.

As is also evident throughout the introductory chapter and literature review, focusing on self-tracking meets suggestions set out by Arnould, Price and Moiso (2006). That is, contexts fruitful to explore include those which are culturally significant and

important to the lives of many. Some authors (e.g., Gummesson, 2015) suggest one should be cautious regarding the credibility of secondary statistical data. Various reputable sources, however, signal that self-tracking technologies have become increasingly popular in recent years. Moreover, their popularity is likely to grow to that which is almost on a par with the numbers of health and fitness club members in Europe. Relevant insights are overlooked, then, if *not* directing empirical attention to individuals self-tracking. Moreover, whilst it cannot be overlooked that there is a rapidly growing body of scholarship regarding self-tracking, there remain significant knowledge gaps.

Studies focusing on self-trackers in the UK are also generally sparse. This is particularly so at the time the research study underpinning this thesis began. Furthermore, whilst some literature acknowledges why individuals turn to self-tracking, much of this literature falls short of unpicking this in depth. Explicit acknowledgement towards ways well-being is experienced upon interacting with self-tracking technologies is also limited across self-tracking literature generally. There are a lack of explicit links between capacities emerging from self-tracking and well-being. Where the self-tracking literature does mention well-being, it may be associated with individuals seeking to optimise well-being and manifesting neoliberal ideals to do so (see Lupton, 2019c for example). Only sometimes is well-being associated with something that emerges in everyday moments when self-trackers are affected by the capacities of self-tracking objects they assemble with (see Pink et al., 2017). The prior experiences of individuals relative to new changes generated from self-tracking are still also overlooked.

As points drawing the literature review to a close reinforce, there is thus a fruitful opportunity to give greater attention to ways well-being emerges when individual bodies assemble with self-tracking objects. Focusing on affects and capacities emerging from interactions, is worthy, for instance.

8.2.1.3 A novel opportunity to contribute to the growing CCT literature focusing on human and non-human relationships

Focusing on well-being can add to the existing “scant” (Moisio and Beruchashvilli, 2020, p.857) body of work exploring well-being. Simultaneously, this can contribute to a growing body of work associated with CCT which focuses beyond consumer

agency and adopts relational thinking. As section 2.3. of the literature review highlights, there exists a turn to “flat ontologies”, whereby assemblage perspectives are drawn upon to explore sociocultural issues (Arnould and Thompson, 2018). This work can be built upon by exploring how individuals interact with self-tracking objects and by exploring the implications of such interactions. By focusing on well-being, literature directing attention to human-digital technological assemblages can be built upon in particular. Focusing on well-being can also add to other recent work considering ways that well-being emerges from becoming involved with a technological assemblage (e.g., Patterson, Kozinets and Ashman, 2019).

Hereafter lies a discussion of relevant insights generated.

8.2.2 What human and non-human components individuals to self-track?

Underpinning Research Question 3 is a call to explore further what leads to self-tracking objects becoming significant for individuals. By revisiting insights corresponding with this question and elaborating further, this section starts to synthesise important findings and connect them with the relevant academic literature. This is cognisant with further points articulated by Geletkanycz and Tepper (2012). In particular, their points regarding the importance of weaving findings presented with the engaged academic literature to help to enhance our understanding of a phenomena studied.

8.2.2.1 It's complicated... goals associated with self-tracking are not self-constructed

As the prior section reiterates, there are several insights from chapter 4 of the literature review which make evident various reasons why individuals want to voluntarily self-track. Individuals may track because they find tracking simply something irresistible (Ashman, Wolny and Solomon, 2018). Alternatively, they track because they are attracted by the novelty of the technology or because they perceive self-tracking technology to have features which can help them to achieve particular goals (Canhoto and Arp, 2017). Whether this be regulating calories consumed (Ashman, Wolny and Solomon, 2018), losing weight, seeking to avoid illness (Lupton, 2016b; Rooksby et al., 2014), or improving training performance (Hardey, 2019). Authors such as Etkin (2016) (who assume individuals are intrinsically motivated),

meanwhile, strongly assert the “allure of personal quantification is simple”. They argue that individuals are interested in understanding their behaviour to make the “necessary changes” which lead to living happier and healthier (ibid, p.967, p980). Based on insights that chapter 6 presents, it seems apt to echo and build upon statements made by Ashman, Wolny and Solomon (2018). For example, those suggesting motives for self-quantification are rather “complicated” (ibid, p.218).

Insights within this study convey that individuals are not choosing agents (Bettany and Kerrane, 2011) who simply construct goals which they then strive for by self-tracking. Insights also demonstrate that the suggestion within current academic literature that individuals seek changes (such as those aforementioned) to be responsible and live better is understating. Further details that may be relevant are glossed over. This includes details regarding what else might be relevant to new goals emerging or to what living better might constitute. To date, only some literature (e.g., Lupton 2019b, 2019c; Williams, 2015) acknowledges significant events which lead to self-tracking. Lupton (2019b) articulates these as contextual. Notable is that existing suggestions or empirical insights regarding the desire to lose weight, avoid illness or improve training and do what leads to being happier are relevant. As insights which chapter 6 presents indicate, such concerns are often shared. Nonetheless, this research unpicks in greater depth what leads to self-tracking. This research demonstrates how concerns such as these (alongside others) tend to offshoot from other encounters. That is, encounters whereby different human and non-human components assemble. This section now proceeds to discuss this further.

8.2.2.2 The roots from which self-tracking can offshoot

Insights conveyed within Chapter 6 related to an interest in becoming slimmer, help to demonstrate that different bodies, objects, and ideas can be important for actively provoking concerns about one’s body to flare. This in turn prompts individuals to want to de-territorialise from prior assemblages (such as assemblages comprising less disciplining relations with food). Section 6.3.1 demonstrates that some male participants manifest particular gendered ideals upon encountering body images. As the chapter acknowledges, this is striking given current arguments which indicate that more attention has been given to women who experience tensions and strive to adhere to bodily ideals. Other insights, meanwhile, indicate that clothes have the capacity to be affective. This includes on occasions when they do not fit. This is

particularly the case for participants who strive to become slimmer so that they can appreciate in full desirable clothes.

Further findings demonstrate that objects such as photographs can produce meaningful and affective responses for various individuals. This is comparable to insights provided by authors including Williams (2015), but which are generally sparse elsewhere in the self-tracking literature. The findings from this study in particular, demonstrate that photos of oneself can communicate new understandings (Coleman, 2009) like that of the fleshy body morphing into something less desirable (e.g., becoming-bigger). To elaborate further, some individuals can be affected in ways that contribute to becoming-bigger when there is less disciplining or moderated relations with food (e.g., when eating particular foods without attention to nutritional content or portions) or when having encountered stressful life situations. Only when new spontaneous encounters occur such as viewing a photo uploaded online, do the physical bodily changes actualised become realised. This, in turn, can provoke visceral reactions such as low hedonic feelings including dissatisfaction. Rather than this being further limiting, however, this is productive. New decisions anticipated to bring a greater sense of happiness or control, for instance, can be sparked, and this can unlock the potential for further capacities. This includes better social relationships. Consider participants such as Lucy. To recap, Lucy mentions a photo she saw as the “kickstart” to making changes and expanding her potential to be happy with herself and with somebody else.

A greater openness towards adopting changes (which entail self-tracking) can ultimately be linked with spontaneous and fleeting encounters such as these, therefore. To be clear, a turn towards self-tracking is not necessarily just about trying to become slimmer. It can also be about moving closer to new goals (e.g., dress size goals) to override the lack of ability to establish positive assemblages with others. This can be limits such as experiencing fewer moments enjoying shopping for clothes, being unhappy with clothes which do fit, or being unable to be as happy with others.

Other findings which demonstrate that a turn towards self-tracking can be contingent upon spontaneous connections with others include insights regarding individuals deciding to become slimmer to avoid ill-health. As is apparent within section 3.3.2.3, it is suggested within existing literature that the well-being of individuals can become compromised when one is depicted by others as lazy, irresponsible, or a burden (Rail, 2012; Lupton, 2013a). As is evident from comments expressed by participants such

as Rose (see section 6.3.1.3), well-being starts to become compromised when she herself manifests such ideas by becoming startled by the illness of somebody else she perceives to embody good health. This in turn, prompts action.

Insights associated with individuals who become attentive to addressing and managing specific health issues which are actualised and deemed problematic, further demonstrate that an array of bodies, objects, and ideas can be important. Notably, encounters becoming poignant here are not necessarily as spontaneous as those aforementioned (e.g., when suddenly coming across a body image). What is evident, is that workplace wellness assemblages or other healthcare assemblages which are established become significant for several individuals interested in resolving a health issue. Interestingly, most participants here (except for Hugo who is offered a discounted Fitbit by his workplace) do not necessarily receive advice regarding turning towards self-tracking from health professionals. Rather, tips, and as is the case for Shauna, (limited) support programmes, corresponding with territorialising frameworks (Fox, 2002) are provided regarding aspects such as physical exercise and weight. To ultimately turn to self-tracking could, therefore, be interpreted as not only addressing particular issues but also de-territorialising and taking a different direction from what is associated with traditional healthcare.

An interest in predominantly boosting what one does is also a consequence of becoming affected by other human and non-humans encountered. Discourses provoking concerns can be affective for some participants including Emilia. An ageing body can also be affective for some participants. This is evident when individuals exercise imaginative capacity and become concerned about the potential for favourable capacities emerging to become constrained. Participants such as Denise, for example, are conscious of becoming “vulnerable”. There are concerns exercised about resisting limits and about being able to do activities (which may be mundane but are essential) such as shopping or going to work. Others including Grace and Sally also are affected by their ageing body. They become attentive to managing fitness levels so they can do meaningful things such as spend time being active with family. To want to boost what one does can also be to address other obstacles which remain affective and which suddenly ignite a newfound desire to make changes. As is evident in section 6.3.3.1, participants such as Carole become eager to overcome constraints to their capacity to do things and feel well. The enduring affects from experiences with bullies provoke overriding feelings of lethargy, for example. To boost, therefore, can be interpreted as not only making changes which can frame a

body as becoming-fitter. To boost is to also expand ones' potential to do things (e.g., feel better, partake in meaningful activities) that reflect enhancements to well-being.

To recap on this alone, it is clear that new interests and goals which individuals manifest are a response to affective encounters which heighten their attention to existing limitations or challenges. Moreover, because individuals can be affected in different ways, self-tracking is not only a practice engaged with by individuals already leading conventionally healthy lifestyles and merely seeking feedback. This addresses questions raised elsewhere (see Ostrom et al., 2015).

8.2.2.3 What else contributes to individual's assembling with self-tracking objects

Additional interactions with others, however, also become pivotal to individuals' turning to self-tracking technologies. As findings within section 6.4.1 demonstrate, some individuals have limited vision regarding what tracking can do. Noteworthy is how this contradicts the suggestion that one can imagine the capacities that might emerge from an assemblage (Hoffman and Novak, 2018). Also noteworthy is how this can be compared against findings from Epp, Schau and Price (2014) regarding limited imaginative capacity leading in some instances to not assembling with particular technological objects. It becomes apparent that even in cases whereby participants (e.g., Natasha) express reluctance towards tracking, they still invest. A self-tracking assemblage forms. Participants who are particularly sceptical about tracking tend to invest as a result of recommendations from others or when receiving a tracker as a gift. Alternatively, when becoming increasingly open to the material capacities. To become more open to self-tracking cannot be disentangled from existing relations and new interests emerging (Natasha, for example, becomes curious about viewing activity – as perceived to be enabled by a device/app - when becoming attentive to boosting her activity).

Insights also indicate that the capacities of self-tracking objects (as expressed by others) can be pivotal for participants anticipating opportunities for self-expansion (Hoffman and Novak, 2018). That is, to be able to do something more and become something else (ibid.). Reviews posted online which are researched can be significant, as can noticing others track with their device. Social relations such as casual conversations with like-minded others, with friends, or random encounters with

strangers who also track also can further be influential. Investing in self-tracking objects is also contingent upon other relations. Resources such as money framing the ability to afford a device or app, can be important, as can gift relations. The value of gifts for in turn contributing to the formation of new organising self-tracking assemblages differs somewhat from Alldred and Fox's (2017b) recognition that gifts may be valuable for enabling de-territorialisation and the opening up of new capacities which go beyond forces which are constraining or aggregative/molar (ibid.).

8.2.3 How do individual's interact with self-tracking technologies?

What participants generally interact with (when assembled with particular devices and/or apps) is highlighted in section 6.2 of chapter 6. Data associated with food is tracked by individuals seeking to de-territorialise from a bigger body or by individuals such as Joanna with prior experiences of tracking food in some way. Data associated with food is found to be less likely to be tracked by participants (e.g., Sally) engaging with other food regimes or participants who are mostly interested in their physical activity. The material capacities of a self-tracking object that individuals become open to prior to investing can also influence what is interacted with. Participants such as Lisa partake in challenges because they know others who do challenges, for example. Interactions with some data may also emerge as a result of becoming increasingly familiar with what can be tracked. Participants including Fiona, for example, only become increasingly interactive with their device and app after discovering challenges with others. Especially interesting though, is the labour required when interacting with self-tracking technology for well-being to enhance. This section elaborates on this hereafter.

8.2.3.1 Labour performed during interactions between individual-devices/apps-data

Some authors do acknowledge that self-tracking can comprise labour. As is apparent from some of the literature, which section 4.3.4.1 of the literature review acknowledges, authors including Lupton (2019a, 2019c) recognise that self-tracking can be time-consuming. The labour involved with generating and interpreting data is also recognised in more recent work by Lupton (2020a). To elaborate, Rettberg (2014) argues that our bodies are technologies with constraints and affordances. Following a similar sentiment, Lupton (2020a) suggests that self-tracking entails

labour associated with the “enfleshed affordances” of our body (ibid, p.3). Assessing and appraising data can involve exercising mental awareness and memory, for instance.

It is further conveyed within this research study that individuals can capitalise on their bodily affordances and work with devices, apps, and data materialisations in multiple ways when self-tracking. In particular, labour is performed when becoming attuned. As Section 7.2 articulates, attuning refers to adjusting to tracking and becoming attentive to ways of tracking that work well. Insights throughout chapter 7 generally convey that labour is also performed to differing degrees when recording data, when consulting data (e.g., reviewing or making sense of visualised data) or when socialising (e.g., sharing or comparing data with the data of others; reviewing others’ data or conversing about data). These modes of interaction are notably comparable with others identified in the existing literature (e.g., Bode and Kristensen, 2015).

To elaborate, as 7.2.1 acknowledges and exemplifies, attuning can have a historical component (Hoffman and Novak, 2018). Past experiences can remain affective and shape present/future ways of tracking. To draw upon previous experiences itself suggests memory work is involved here. What is further apparent is some individuals may also perform work by simply trusting the capacities of self-tracking technology. Others, meanwhile, exercise awareness by adopting a cautious approach to tracking and denying certain material capacities.

To reinforce what Hoffman and Novak (2018) suggest, these individuals can become self-restricting. Notably, individuals also can exercise awareness when being attentive to goals that can be set or deviated away from. When becoming receptive to ways data can be co-generated, awareness can be exercised by giving notice to more convenient ways of recording/visualising data. If there exists historical experience in tracking with other devices or apps, labour may involve making comparisons with the previous methods of tracking and again, drawing upon memory. Ways well-being can emerge is also contingent upon work performed by the technology itself. What can also be important is devices and apps offering convenient and accessible ways of setting data goals, recording data and visualising data which can mitigate potential feelings such as ambivalence, confusion or doubt.

Relatively less work can be required by an individual for recording data, particularly when aspects including physical activity are logged automatically by a device. That

is not to overlook though that recording data manually can still involve considerable effort. Evident throughout various quotes is the significance, for example, of syncing data or giving the time required to record specific details. Recording data also means the technology has to be sufficiently powered. Consulting data, meanwhile, can involve various labour. Individuals exercise awareness towards the data re-presented by self-tracking technology when reading data and making efforts to understand it. Individuals also exercise awareness when reviewing or making sense of data in light of other bodily affordances that they are attentive to. This can include, for example, responding to data in particular ways depending upon ones capacity to move, which itself is contingent on other relations. Individuals further exercise awareness when they compare data. Individuals also perform labour when trusting data, directing attention to visceral responses or actions that can be provoked, when making it a habit to consult data, or when making conscious efforts to negotiate participation within the self-tracking assemblage. Similarly, socialising can entail work such as comparing data with the data of others, and if able, making changes such as efforts to move more (particularly when in challenges). Further work can involve giving attention to reviewing others' data and showing signs of support (e.g., by giving likes/kudos or posting comments).

8.2.3.2 (Ongoing) interactions with self-tracking technology

Section 7.3.5 presents insights which demonstrate that several participants who experience favourable changes, tend to interact habitually with self-tracking technology. This in turn contributes to their territorialisation. Such insights reinforce Hoffman and Novak's (2018) idea that an assemblage becomes stabilised when being a part of it results in enabling experiences of self-expansion. That is, whereby greater capacities are generated when part of an assemblage (ibid.). It is evident from this study that several individuals continue to self-track when positive advances in well-being are enabled. For some, there is limited imaginative capacity regarding not tracking. To not track, can in some cases such as Skyler and Lisa, evoke significantly unfavourable responses. As section 7.3.5 further acknowledges, the desire to continue ones' intertwinement with self-tracking technology is often unabated. The march forward with the digital is lasting (Humayu and Belk, 2020). These insights indicate that to be "wired" with devices, data, the data of others data and so forth, may not be quite as "terrifying" - at least for some - as philosophers such as Zizek have previously suggested (see Kozinets, Patterson and Ashman, 2017).

Certain affective forces can threaten the stability of an assemblage, in turn, opening paths for de-territorialisation. Chapter 7 provides insights that indicate disruptive forces can threaten the stability of an assemblage. It becomes clearer that interactions with self-tracking technology can be generally contingent upon what else is assembling in everyday life. Interactions can be contingent on whether one is affected by illness, whether there are limited opportunities to move due to bodily injury or whether one's availability to track is framed by other everyday demands, for instance. This is comparable to other insights (e.g. Lupton, 2020).

Some insights also support the premise that constraining experiences lead to de-territorialisation (Hoffman and Novak, 2018), and individuals may enact negotiating strategies (which can also shape well-being). Participants like Tony, for instance, enjoys more time connecting with wildlife when taking temporary breaks from data during cycling trips. Rose, meanwhile, enjoys not always checking calories and focusing on relaxing. Interestingly, more enduring negotiation strategies tend to resonate with participants who are sceptical about what a device/app they interact with can do before or upon re/starting self-tracking.

Consider insights from participants such as Megan and Russell. As section 6.2.1 makes evident, Megan interacts with a "basic" device. A device which, as is later apparent in section 7.3.4, is one she begins to question and find problematic. It does not have the material capacities she would appreciate (e.g., to present data in a different way that is less limiting than the presentation of "dots"). This seemingly contributes to the self-tracking assemblage becoming "stagnant" (Hoffman and Novak, 2018, p.1187). That is, the limitations of the device constrain possibilities that could open up (*ibid.*). Other tensions can also emerge, nonetheless. In the case of Megan, tensions regarding activity tracking (e.g., those associated with feeling tracking is obsessive or controlling) are not necessarily due to constant feedback and a digital feedback loop, as is found in other studies (e.g., Bode and Kristensen, 2015). Such tensions are more sporadic. Nonetheless, they are significant. There is a sense of becoming ruled by a device which has become masterful (Schweitzer et al., 2019). This can be self-reducing (Hoffman and Novak, 2018) and contributes to well-being less favourably. Doubtful feelings emerge, for instance, about becoming compelled by data rather than giving attention to own bodily senses. Consequently, the self-tracking assemblage falters. The device Megan tracks with, which at one point is

perceived as not bothersome, becomes one to be quickly ditched, as is evident in section 7.3.5.

Russell, meanwhile, gradually de-territorialises from tracking (again) upon directing attention towards the capacities of the app. Participants including Danielle and Tina also de-territorialise from certain modes of tracking (e.g. tracking food with a particular app) after a turbulent relationship which raises questions and prompts a turn to alternative materials (e.g. an e-book, or a different app and food chart).

Various insights suggest that there is scope to be recaptured by a self-tracking assemblage. Insights suggest that self-tracking relations remain affective, even after breaking away from tracking for a considerable time. This is first apparent when participants including Danielle and Russell begin tracking again particular affective relations assemble and new interests emerge. This is further apparent when participants such as Megan re-contemplate self-tracking.

Interestingly, when it does become more difficult to be recaptured by the self-tracking assemblage, there are aspects which may be highly relevant. Russell, who eventually makes efforts to both move away and stay away from tracking has repeated experiences of tensions. He is also reflective, and comparable with other participants such as Megan, is attentive to new affective capacities emerging when not tracking. These generally indicate that de-territorialisation can be good. Megan feels less “pressure”, for instance, whilst Russell enjoys new workouts more and enhances his bodily affordances by improving performance. Notably, these insights are also relevant for further challenging the idea that technologies are inescapable (Mick and Fournier, 1998) and rather can be viewed as unavoidable (Humayun and Belk, 2020). To clarify, insights suggest that one can go beyond the boundaries of self-tracking and de-territorialise from devices and data. However, despite connections with self-tracking technologies breaking down, affective capacities emerging from a new assemblage can still be compared with previous affective capacities emerging from self-tracking. There is also the potential to return to self-tracking.

Interactions with self-tracking objects are not merely framed by motivations shaped by wider affective forces. Interactions are also shaped by how such interactions can be affective, generating new capacities.

8.2.4 Changes generated from self-tracking which reflect the ways that well-being can emerge

This section directs attention to new capacities produced from participating in a self-tracking assemblage. Addressing Research Question 5, attention is given to how interactions with self-tracking devices and data influence what an individual self-tracking body can do. Insights suggest that a multiplicity of changes can emerge in given moments when data is worked with in limited or more elaborate ways.

8.2.4.1 Affects and capacities

Chapter 4 acknowledges literature which demonstrates that there is considerable attention given to capacities emerging from self-tracking in recent times. Scholars recognise that there is the potential to experience feelings of pleasure when recording data (Lomborg, Thylstrup, and Schwartz, 2018), visualising data (Williams, 2015), when adjusting goals and creating positive feedback loops (*ibid.*), or when experimenting with data and learning what can be done with it (Kristensen and Ruckenstein, 2018). Scholars also recognise that interacting with data which indicates successes can lead to feelings such as satisfaction (Lupton et al., 2017), accomplishment, control (Pink, et al., 2017; Pink and Fors, 2017; Lupton and Smith, 2018), or reassurance (Duus, Cooray and Page, 2018). Interacting with the data of others or receiving recognition from others can also facilitate feelings such as pride (Lupton, et al., 2017) or accomplishment (Pink, et al, 2017). Less enabling feelings which can be produced when engaging with data however, are found to include disappointment (Lupton, et al, 2017), guilt, shame (Lupton, 2018b, 2019c), or loss of control (Ashman, Wolny and Solomon, 2018; Duus, Cooray and Page, 2018).

Within the self-tracking literature, it is also considered that there is the potential for subsequent decisions made about food to evoke greater feelings of control (Lupton, 2018b), or for tracking food digitally to enhance convenience (*ibid.*). Moreover, there is potential for tracking food to encourage a sense of play when transforming a meal back into its composite ingredients and nutritional content (Williams, 2015). It can also be fun (to a point) when visualising different activities (Kristensen and Ruckenstein, 2018). Trusting relationships with data can also facilitate a heightened awareness of bodily movements (Bode and Kristensen, 2015; Belk, 2016; Lupton, 2019c) and foods consumed (Williams, 2015).

To engage with personal data can also be motivating (Bode and Kristensen, 2015). Engaging with the data of others by making comparisons or competing, meanwhile, can help to build relationships with others (Lupton, et al, 2017). This can further transform the meaning of an activity and evoke individuals to reflect and perceive it differently. Running, for example, can be seen not just as exhausting but as signalling drive, which can encourage commitment (Spotswood, Shankar, and Piwek, 2020). Tracking can further encourage new conversations and help one find common ground with like-minded others (Williams, 2015). Tensions, however, can also emerge. Tensions evident within the existing literature include overexertion and risking bodily injury when taking tracking too far (Bode and Kristensen, 2015), feeling compelled to push towards targets (Duus, Cooray and Page, 2018) and not listening to bodily senses (ibid.).

Lupton (2020a) draws further upon findings generated with Australian trackers who track aspects such as food, weight, physical activity, and sleep. In turn, the author presents a compilation of different capacities produced when data becomes an affective force (ibid. p6-10). Lupton (2020a) conveys that knowledge regarding how much physical activity done can be heightened as data can “tell you the truth”. Data can also “empower you”, or “can make you feel in control” since data can provoke new realisations regarding ‘bad’ habits. In addition to making something appear more real by providing tangible results, data can also “help you be organised” such as by enabling the planning of physical activity with greater ease. Moreover, data “can motivate you”, and “can make you change”, as is evident from occasions when greater attention is directed towards exercising and healthier eating.

Lupton (2020a) further articulates that data “can be combined to generate new insights”, which enables individuals to better make connections between particular issues. Likewise, “data can surprise you”, raising awareness of what is done (e.g., the amount of physical activity undertaken) contra to ones’ own assumptions. Data can also “challenge denial”, enabling feelings such as being in a better position to address an issue. It “can provide a benchmark”. Similarly, data “can monitor progress” which can enhance attentiveness to slight or gradual improvements being made. Moreover, data “can be shared” and can perhaps “generate intimacy”, enabling one to include others in their personal life. Drawing to a close, Lupton (2020a) conveys that data “can make you feel good”, or “data can make you feel bad”. Additionally,

data “can be inaccurate”. Lastly, data “can supplement expert advice” and enhance knowledge about something to do to address an issue such as losing weight.

The insights emerging within this research regarding the ways that individuals can be affected by food or activity data which is interacted with, generally corroborate and add to those insights from recent self-tracking literature. Attention now turns towards elaborating on this.

8.2.4.1.1 Data can become a source for truth (and can become a source for making change)

There are several instances whereby it is apparent data can provide seemingly truthful, insightful information. This is apparent when participants such as Danny approach food tracking carefully. To clarify, Danny first focuses on recording food and in turn, placing trust in data which raises his awareness to (amounts of) food consumed. Though this evokes some less favourable emotions (e.g., finding it “rough” to see “big” numbers), such data is pivotal for challenging any potential denial about what is consumed. It is also pivotal to becoming further involved with tracking food to address interests such as becoming slimmer. Other instances whereby data can tell the truth include additional participants tracking food and gaining information about numbers of calories consumed. This subsequently helps with making changes such as becoming increasingly conscious about food content.

Data can also provide insights regarding efforts about physical activity undertaken. This is evident from participants including Danny who make sense of data indicating improvements to physical activity. Further instances whereby data provides seemingly truthful insights include those which are valuable to individuals consulting data regarding specific training activities. Information regarding pace when running, for example, can be valuable for managing performance. As comments from participants including Oliver help clarify, whether data is generating trustful information in particular situations can be contingent upon whether data logged manually or automatically recorded is accurate. An app recommending benchmarks and workouts to help an individual prepare better for a race, for instance, relies on data that individuals are “feeding back into” it. For data to be trustworthy then, is a collaborative process.

8.2.4.1.2 Data can help with organisation (and data can become convenient)

There are various occasions whereby data can help with becoming more organised, which in turn produces further opportunities to experience well-being favourably. This is evident when participants such as Danny become more comfortable food tracking. This is further evident when participants including Rose trust in recommendations provided by the marketers of a food app and experience a greater sense of confidence about what to do to become slimmer. In general, when participants interested in working towards a slimming body turn to recording food and consulting data about food, their prospects regarding making careful, effective food decisions can be enhanced. Participants might plan a lighter dinner, or make more effort managing food portions. Noteworthy is the extra work that can be required when engaging in demanding efforts such as weighing foods. Though less common, it can also be the case (as it is for Joanna) that tracking food and planning meals can also help to avoid waste or accommodate meals when busy with other life demands.

Data associated with physical activity, meanwhile, can also help with organisation. This is especially so for individuals who train with the convenience of an app. Data is embedded within training schedules which participants including Oliver and Jamie follow. Whether this is training schedules reviewed personally, or training schedules shared with a coach. Similarly, data indicative of what exercises to do can help participants including Russell to undertake a structured, time-efficient workout. The convenience of this data enhances the motivation to train and face the gym. Activities consulted can also enable better preparation for events (e.g., races).

8.2.4.1.3 Data can make you feel in control

This study offers insights which suggest data can make you feel in greater control. This is especially so when participants including Danielle and Rose track food and contra to derailing, keep to a dieting regimen. This is also the case when participants such as Rita, interested in managing health issues such as diabetes, consult data.

8.2.4.1.4 Data can become motivating (and can become a source for making change)

Data can become a source of motivation for many. Whether interested in becoming-slimmer, becoming-fitter, resolving health issues or adopting a more experimental

approach towards tracking. Chapter 7 presents findings which suggest data can at times motivate one to stick to food plans, for instance. Chapter 7 presents findings which also convey various occasions whereby individuals consulting personal activity data can become motivated to adjust bodily movement. Whether this is by going for local walks more, forming relations with workout equipment at home, or enhancing performance during a training workout. Individuals might become increasingly motivated when responding to specific cues (Ashman, Wolny and Solomon, 2018) such as a particular step count or pace metric. Whilst not the case for many, badges can become motivating. Comparing data with others through features (e.g., challenges, leader-boards) afforded within apps or on social media platforms can also become motivating for many. As can receiving recognition and support from others. Data can motivate individuals at any time, albeit the execution of particular actions is contingent upon others. Accessible spaces that enable the body to be mobile, being one example of this.

In addition to findings already presented, it is notable that the capacity for data to be motivational also became striking during an interview, when one participant – Hugo – commented during our telephone interview that he was “actually walking around the meeting room doing some steps now whilst we are talking”.

8.2.4.1.5 Data can become combined to generate new insights

Making sense of data can help to generate new insights. Within this study, it is evident that the participants who engage with spreadsheets to combine data and better understand it, can learn something new. When participants such as Tony become immersed with data and consult data, new understandings about cycling performance are gained. This includes a further grasp about individual performance relative to others, and better knowledge about cycling performance in light of foods consumed. Making sense of data enhances well-being as it is not only enjoyable and provides a means of escapism, but also quenches a curious mindset. Participants such as Joanna also record data on spreadsheets. This can enable connections between food and weight and enable connections with other aspects including everyday schedule (section 8.2.4.1.2 reinforces the potential to then plan).

8.2.4.1.6 Data can become surprising

Data can become surprising when individual trackers become attentive to a particular level of activity achieved. This is evident in instances such as Danny becoming aware of an exceptional distance achieved. Noteworthy is that the value of an activity undertaken in such instances is transformed from one of simply wandering to something more metric-oriented.

Data can also be surprising when becoming aware of levels of inactivity. Interestingly, though, data may not only become surprising to individuals' directly consulting data. Sharing data with others can also evoke shock for individuals not directly self-tracking as they realise their (in)activity levels too. Further ways data can surprise include when participants realise the impact of physical activity on the body. Hugo, for example, does not only come to recognise the impact of pushing a pram when walking but is also "gobsmacked" about energies exerted during wood chopping activities and how such activities can contribute to fitness. When data communicates to an individual that they have done more than they anticipated, this can produce favourable feelings.

8.2.4.1.7 Data can become a benchmark (and data can become a source for monitoring progress)

Chapter 7 includes insights which demonstrate the importance of goal setting and readjusting. As an example, individuals tracking food when working towards a slimmer body may set targets as they generally do not want to exceed a particular number of calories. Several individuals tracking physical activity, meanwhile, set goals to foster their commitment towards doing an activity, or doing an activity at a particular intensity. Several individuals become attentive to walking a particular number of steps each day, or reaching a certain level of cardio or fat burn, for example. Individuals training may try to perform an activity at a specific pace or within a certain time. Data-oriented goals can function as benchmarks. These become significant in situations when individuals consult data to understand their progress. During training runs, data may be consulted to verify whether changes are necessary to reach a goal. During the day, meanwhile, step count or amount of food consumed might be checked, and if possible, a suitable response taken. When data accumulates, the data recorded for weight can be consulted if interested in becoming

slimmer. Data representing physical activity may also be consulted to better understand ones' gradual efforts towards accomplishing more.

8.2.4.1.8 Data can become shared with others (and can become a source for generating intimacy)

Sometimes participants share data regarding food. As Table 6.1 highlights, Joanna shares data with a nutrition coach. Data sharing is, nevertheless, more common amongst individuals tracking physical activity. As insights within chapter 7 suggest, data can be shared during challenges when individuals compete with each other and/or support each other. Data can also be shared with others when posting achievements on social media (*e.g., Twitter, Instagram*). This is especially so amongst individuals who engage in activities including running. Danielle shares achievements, for example, including proud moments. Opportunities for sharing also arise when casually conversing with others. Fiona sometimes has shared achievements with her family, for example. It is notable that sharing data can also generate increasingly intimate relations. This is comparable with insights from Lupton (2020a).

This is not always the case. Take Fiona, who is normally immersed within the Fitbit community. When she tries to share data with her family, there is usually disinterest. There are, nevertheless, occasions when sharing personal data generates a sense of recognition, of closeness, or supports relationship building with other people. This is especially the case for participants such as Shauna, who enjoys moments sharing and discussing data and feels a greater sense of inclusion. For participants such as Danielle, meanwhile, to share achievements one is proud of, or even activities more trivial, is to share with her "team".

Further insights from participants including Ethan and Skyler reinforce the potential for sharing data to open up opportunities for new relationships. As Table 6.1 in Chapter 6 acknowledges, both share data and converse about data with others. Skyler explains this "has allowed me to have conversations with people that I wouldn't have met I suppose...it has allowed me different kinds of relationships with people I know in real life and also online". Ethan, meanwhile, who also appreciates 'likes', remarks that sharing data online has led to conversations with people on social media that previously did not happen. It has "opened the door to this additional community".

8.2.4.1.9 Data can become a source for feeling good (it also can become augmenting or inspiring)

Though affective responses to data can vary – as is especially apparent from an accumulation of diary data – chapter 7 presents several insights which convey that data can provoke favourable feelings including satisfaction, reassurance, confidence, control and pride. This includes situations when participants first are attuning to self-tracking. Moreover, this occurs in moments whereby individuals record desirable data or consult data associated with food, activity, or weight and notice progress. Interesting though is that data also can become, in some instances, rather augmenting. Some findings indicate that data consulted can transform the meaning of an activity. Hugo's everyday movements, for instance, become increasingly perceived as constitutive of becoming fitter. For participants such as Natasha, meanwhile, data is consolidating. By helping her focus on activity to do in the time available, a stable routine which involves walking further into different spaces and which is oriented around motherhood duties is better established. Establishing a routine further enables a sense of doing something valuable with time available. Data can also become inspiring. Participants including Jeremy and Fiona acknowledge a greater sensitivity to doing more when viewing the data of others' shared. Participants such as Shauna, meanwhile, become increasingly confident to do things previously more difficult such as resist the allure of food offerings in supermarkets when unanticipated affective forces emerge.

8.2.4.1.10 Data can become a source for feeling bad

In other moments, data can provoke less favourable feelings. This includes in situations whereby one is motivated and takes actions such as moving more – as is evident from some diary entries (like that of Natasha). Less favourable feelings like disappointment or frustration also tend to emerge when data signals to an individual that their efforts are insufficient. This includes when comparing with others' data. Alternatively, feelings including annoyance can emerge in situations including when data recordings are lost. Rarer situations whereby data takes one by surprise, and whereby considerable stress is evoked, are evident within Tina's diary entries.

8.2.4.1.11 Data can become compelling (and data can become counterproductive)

Data can also become compelling. Some individuals may wish to record as much physical activity as possible, particularly those with experiences of limited mobility. In such instances, the compelling capacity of data is not perceived to be so problematic. The capacity for data to become compelling can sometimes also provoke less favourable or mixed feelings, however. This is resonant with the aforementioned capacity for data to become a source for feeling bad. Data can also provoke counterproductive actions. This is especially so when data encouraging one to do more activity to meet particular cues (e.g., a certain number of steps or particular exercise) becomes an overriding force. Data can provoke efforts leading to overexerting ones' bodily affordances. This is evident from participants such as Russell, who at times become alienated from own bodily sensations when pushing harder. This is despite attempts to engage with the app without data becoming dictating.

Alternatively, data can overshadow alternative (favourable) ways of enhancing well-being in a given moment. As is evident in comments from participants like Megan, data can become "controlling". It can provoke additional movement to reach a target which in turn sparks conflicting feelings. Indeed, in response to the thought that "this was ruling my life" Megan diverts attention to what else she could have been doing if data had not become so compelling. She envisages that it might have been "better" and more "relaxing" to simply rest, for example. Participants such as Lincoln can be affected in both favourable and less favourable ways when tracking with their device and data. It is clear from diary entries that there can be a straddling between moments of feeling in "control" to wondering whether a point can come whereby one is "so invested" that they feel increasingly "lost" and powerless. Resorting to a metaphor of a labyrinth, Lincoln expresses doubt regarding the ease of transitioning towards a situation whereby one does not (want to) track. This is because tracking is compelling.

8.2.4.1.12 Data can become playful

Sometimes data can become playful. This is most apparent when considering comments from participants such as Joanna who track food. It is apparent that she detours from prescribed settings, turning away from a fixed goal (Sanders, 2017). She acknowledges playing with numbers, which contributes to feeling "good" and 'well". Notably, insights such as this provide evidence supporting ideas proposed regarding the capacity to experiment within a regime of discipline and normalisation (Sanders, 2017). Further insights supporting this include those relevant to Skyler who

also becomes interested in experimenting with tracking and transitions through phases between tracking more and not at all.

8.2.4.1.13 Data can become memories

Though rare, it is evident that data can also become transformed into a memory object. Other literature suggests practices such as GPS recording (Rettberg, 2014) or geotagged mobile photography (Özkul and Humphreys, 2015) enable individuals to preserve meaningful moments. These moments arguably can be directly reflected upon in the future and remind oneself about how one used to be (ibid.). Data within this study suggests recording and consulting data can enable an individual to perform memory work. That is, work entailing special attention to processing information generated from data in anticipation that it will become further meaningful in new ways. Participants such as Skyler suggest data becomes a trace of ourselves. For Tina, data is not simply a record of an activity such as swimming which is undertaken. As she articulates, it becomes “that memory”.

8.2.4.2 New well-being possibilities that are disciplining and/or further liberating

Concurrent with existing literature, the insights that section 8.2.4.1 presents demonstrate multiple ways in which interactions with devices/apps and data can be affective, transforming feelings and actions (Lupton, 2018a). In turn, also helping to address questions regarding how self-tracking practices can be beneficial (Ashman, Wolny and Solomon, 2018). Cognisant with Research Question 6, however, this research makes explicit further insights that are currently scarce. It does so by contemplating how changes actualised fare in light of ways well-being emerges before assembling with devices, apps, and data. It further considers changes actualised and different ways that well-being emerges for individuals with experiences of de-territorialising from a self-tracking assemblage. In doing so, the research builds further on existing self-tracking literature findings, and produces insights which are comparable with ideas posited in recent CCT literature.

To elaborate, from findings both this chapter and chapter 7 presents, it can be interpreted that produced within self-tracking assemblages whereby interactions between individual and data are affective are capacities which are generally

disciplining. Normative behaviours including those linked with consuming certain foods (e.g., planning, measured pleasures) become encouraged. As do behaviours linked with doing physical activity. As but a few examples, these behaviours range from moving more towards data-driven goals, to competing with others or sharing progress and achievements which communicate to others something that one is proud of. As a further consequence, alternate ways of experiencing well-being can become concealed.

The potential to devote more energy towards simply enjoying (cooking) foods can become concealed or overshadowed to some extent. Indeed, when participants including Danielle dismiss food tracking, tasty 'bad' foods may be enjoyed more. The ways several participants describe capacities generated from food tracking also differs between a passion for cooking healthy dishes and inspiration from recipes which other participants such as Penny (who do not track food so much) express. Capacities emerging also include alternate ways of food nourishment as section 3.3.2.4 of the literature review alludes. The potential to simply enjoy exercise without a goal or routine in mind when not tracking can also become concealed or overshadowed, as can the potential to simply enjoy novel connections with the outdoors. Going further, opportunities to 'wander' may become enshrouded by a focus on metrics, and perhaps concealed is doing exercise in ways perceived by some as more "romantic" or as enabling flow (as Tony alludes to in section 7.3.3.3).

These disciplining changes reinforce to some degree what Kozinets, Patterson and Ashman (2017) acknowledge. That is, participating in an assemblage (or what they articulate as networks of desire) can be disciplining. Ways of living become organised by data and surveillance mechanisms. This discipline can, nonetheless, be (mostly) welcome. This is particularly so if data does not become overly compelling. Furthermore, if contra to some participants within Kozinets, Patterson and Ashman (2017) study, previous raw passions are not subjugated.

As section 6.3 of the first findings chapter convey, several individuals becoming attentive to tracking food with a wearable/app and noticing changes deemed to be better are only familiar with eating mindlessly or choosing foods based on convenience before self-tracking. Less favourable affective states or concerns for health emerge when increasingly attentive to the implications that this has for the body now framed as becoming-bigger. Some individuals who track food also have memories of becoming affected unfavourably by counterproductive and intensely

disciplining dieting regimens. Similarly, as insights which chapter 6 presents further convey, several participants re/turning to track physical activity can also be affected by constraining forces and/or may be concerned with what else their body can do in the future.

To de-territorialise and to re-territorialise by self-tracking and in turn, encounter new (disciplining) relations, then, can be limiting (relative to other experimental or creative possibilities). Nevertheless, returning to literature which section 2.5.2 of the review acknowledges, Deleuze and Guattari (1987) assert that to become part of a stratified, organised assemblage is not the worst thing that can happen. Building on this sentiment, it can be argued that to become increasingly disciplined can, in many situations, be ideal. This is particularly so if enabling one to break away from mindless habits or break free from certain constraints which are diminishing (Deleuze and Guattari, 1987). That is, those which can close off relations and limit ones capacity to experience better hedonic or eudaimonic well-being. To become increasingly disciplined can also be ideal if - as is not typically recognised - tracking contributes something meaningful to individuals' lives which are lacking in other aspects of everyday life.

Moreover, not overlooked here is the scope for more intense discipline. As section 2.4.2.1 alludes, some individuals attentive to making their body a site of control may enact strategies including consuming products such as diet bars and shakes relative to ordinary meals (Yngfalk and Fryberg Yngfalk, 2015) They may repress pleasures and become "extra careful", and "self-criticizing" to competently manage health (ibid.). Insights within this study suggest discipline is not taken to extremes like this. Changes generated from tracking can also open up the potential for achieving experiences and social experiences (Bell et al., 2015). Changes generated can also open up the potential for favourable feelings including those associated with belonging or confidence. This is in addition to new consumption activities such as buying new sports clothes.

Though relatively sparse (suggesting the capacity for a self-tracking assemblage to be mostly disciplining), other insights within this study demonstrate that alternate, less rigid, ways of experiencing well-being can also be actualised. These opportunities for further difference, suggest self-tracking bodies can become something "other" (Leith, 2016, p.8). They can do many new things. In rare cases like that of Joanna, being playful with data and finding ways of working with data which enhance well-being is

welcome after emerging from other assemblages whereby prior relations with food are highly controlled. In the case of Rose, meanwhile, to have a trace of personal culinary achievements (which differs from previously being less attentive to food) can evoke pride. Insights within section 7.4 meanwhile, generally suggest a self-tracking body can become open again to performing previously familiar nurturing and rejuvenating practices (e.g., beauty regimes). A self-tracking body can also become energised to do new meaningful, inspiring, immersive and/or invigorating activities which can enable individuals to go beyond metrics and instead devote greater attention to aspects including taking notice of local surroundings and/or to valuing relationships with other people. As is striking in the case of Fiona, new activities can also enable individuals to feel a greater sense of wonder and joy.

Interestingly, these activities which could be previously blocked due to alternate relations assembling, suggest that there is also scope to give some leverage to the view recognised by Belk (2016) that what is counted or times does not account wholly for well-being. This is because such activities signal new ways that desire shoots through boundaries. They enable a greater de-territorialisation from a particular body and habits (Bogard, 1998).

Based on these insights, there is scope to present some of the multiple ways that interacting with food or physical activity data can become pivotal for shaping well-being. Consequently, Figure 8.2 summarises the different capacities of data as identifiable throughout this research. This includes capacities not elaborated upon in recent work by Lupton (2020a). Though what individual self-trackers can do, and ways experiences of well-being can be contributed to does vary between individuals across given moments, Figure 8.2 further highlights some of the capacities which emerge for individuals as data becomes affective.



Figure 8.2 How interactions with food or physical activity data can contribute to ways well-being emerges

8.2.4.3 Visualising (unique) assemblages from which well-being possibilities emerge

The aforementioned sections convey different well-being possibilities that can emerge from participating in self-tracking assemblages. The possibilities will vary depending on the heterogeneous components comprising a self-tracking assemblage. Whilst certain components may be potentially generalisable to self-trackers with similar interests, it is noteworthy that assemblages are unique and it is inevitable that what comprises an individual assemblage will be contingent upon things such as prior experiences, other people, setting, and so forth (Fox, 2011). Visualising assemblages can arguably provide a nuanced way to zoom in on, and reflect on, the unique set of components significant to what self-tracking bodies can do.

Though inspired by a different theoretical perspective and focusing on a different type of assemblage, Lupton (2020b) maps a 'tanglegram' which offers an alternative way to better visualise and understand elements which are relevant to COVID-19. Inspired by the potential for visualisations to clearly highlight complex significant connections comprising an assemblage, examples of visualisations experimented with by the researcher are presented hereafter. The components identified within the visuals are those which are grounded in the participant data (see Figure 8.3 and 8.4, respectively). Notably then, they are not exhaustive, and other connections which are significant could be considered more explicitly. Algorithms and entrepreneurs involved with self-tracking technology, for example (Williams, 2015). Nevertheless, the visualisations do help to portray the complex interconnections between components which can matter to individual self-trackers and the ways that well-being is experienced.

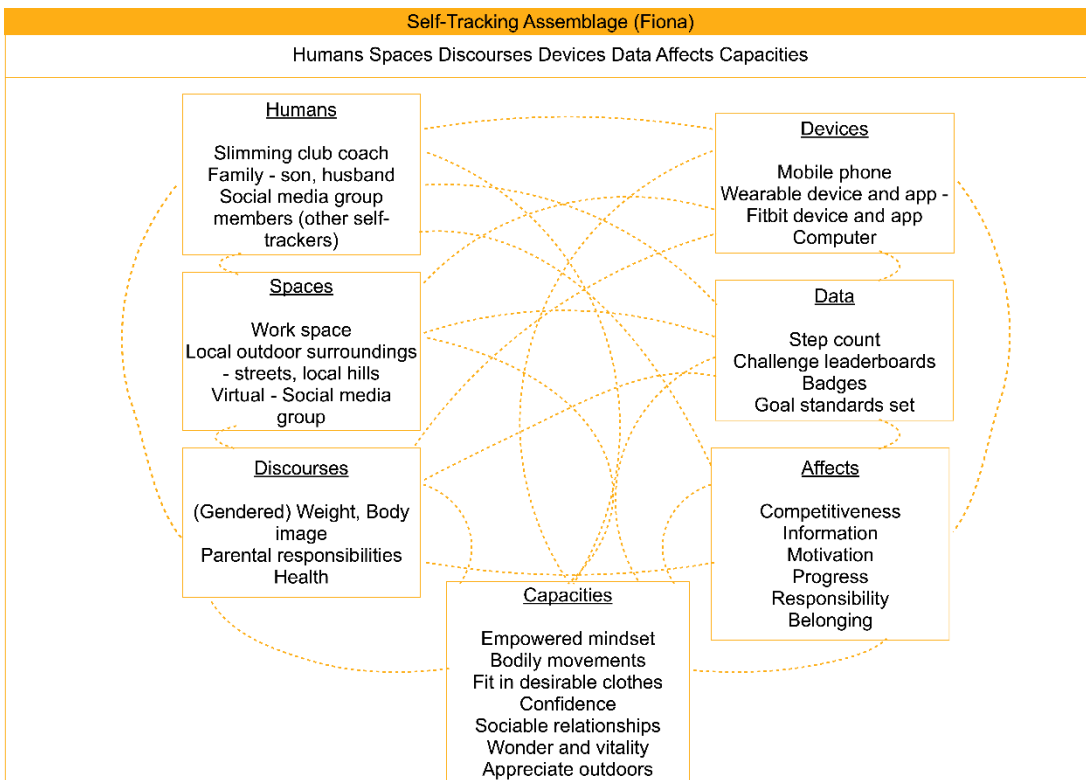


Figure 8.3 Self-tracking assemblage visualisation (Fiona)

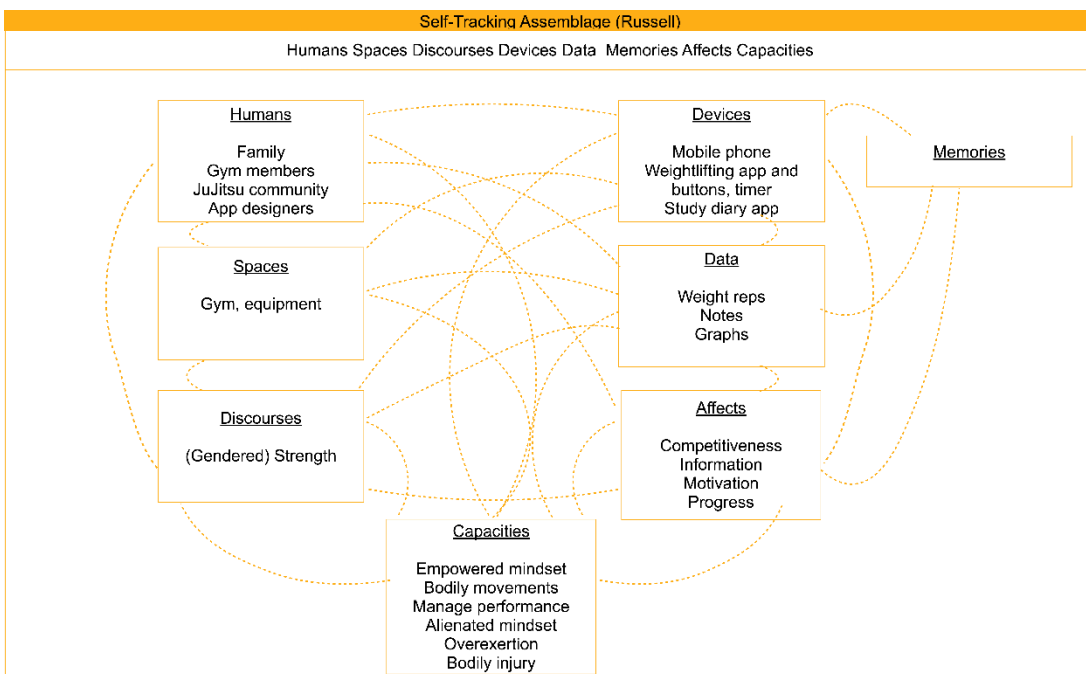


Figure 8.4 Self-tracking assemblage visualisation (Russell)

8.3 THEORETICAL IMPLICATIONS

Cognisant with what can be expected in a discussion, this section now directs attention to what else the insights demonstrate. It considers further theoretical implications and makes clear how insights generated from the research can add further to academic conversations which the research joins (Geletkanycz and Tepper, 2012). What becomes apparent throughout parts of this section is the implications of the insights this research generates for better understanding the role of self-tracking objects for fostering well-being in a culture whereby “digital devicification” is occurring (Cochoy et al., 2020, p.2). Digital devicification is notably a concept advocated by Cochoy et al (2020) to convey forms of action as increasingly mediated by digital devices. The structure of this section is as follows: the section makes further links with self-tracking literature before making links with literature focusing on well-being. The section then directs attention to the significance of empirical data for contributing new insights which can link with ideas associated with paradoxes of technology (Mick and Fournier, 1998).

8.3.1 Self-tracking: A (mostly) welcome albeit complex alliance

It is clear from the previous sections that this research adds to existing self-tracking literature by affirming several existing insights as well as extending insights resonating with knowledge gaps the literature review identifies. Particularly, the research generates rich insights regarding why and how individuals re/start tracking and regarding different affects and capacities that can, contingent upon other relations assembling in everyday life, emerge from interactions between individual and self-tracking objects (i.e., devices/apps and data). The section also presents a visual summary. The research goes on to further signal how disciplining changes emerging from a self-tracking assemblage can be ideal. This is in addition to signalling how disciplining activity can open up the potential for further positive encounters (Bogard, 2009; Leith, 2016). Analogous with Williams (2015) work entitled “An Anxious Alliance”, then, it is proposed based on these insights that in many cases, self-tracking is a (not so) anxious alliance.

Individuals emerging from a self-tracking assemblage further manifest neoliberal ideals reflective of the wider societal assemblage in which self-tracking is positioned. Tensions can also emerge, suggesting self-tracking is a volatile process. To engage

in disciplining regimes can, nevertheless, foster well-being in various favourable ways. As section 2.5.2 of the literature review alludes, Deleuze and Guattari (1987) ask what a body can do. Resonant with this, insights indicate that several individuals interacting with self-tracking objects can, in given moments, experience feelings comparable with what is considered to constitute good hedonic well-being. Feelings including confidence or sense of achievement can emerge. Similarly, individuals can be affected in ways considered to constitute eudaimonic well-being. They can gain a better sense of direction and feel they are making progress towards meaningful goals. In some circumstances, they can also experience a better sense of relatedness with others. This helps many respond to challenges or to constraints or doubts affective before tracking in particular ways. Engaging in disciplining regimes can further lead to (more confidently) connecting with other assemblages (e.g., those associated with new and enjoyable ways of becoming-fitter). Individuals can do things which transform wellbeing in ways going beyond their immediate imaginative capacity, therefore.

This research adds to a recently growing body of literature focusing on changes emerging from self-tracking assemblages (literature which the latter part of section 4.3.3 and 4.3.4 of chapter 4 acknowledges). Somewhat inadvertently, however, the insights generated here also arguably have the fruitful potential to enhance an understanding of how one becomes a “dividual”. This is another Deleuzian concept suggesting individuals are reconstructed into (an assemblage of) data traces which can be used to the advantage of marketers. The concept is garnering attention in both self-tracking literature (see Schüll, 2016) and consumer-cultural oriented marketing literature (see Zwick, Bonsu and Damody, 2008; Cluley and Brown, 2015, for example). Indeed, Cluley and Brown (2015) suggest further work is needed to better understand how people are recruited into projects of dividualisation. Insights from this research indicate that affects and capacities which emerge and which transform well-being favourably, contribute to an individuals’ desire to keep interacting with self-tracking objects. Only when there are overwhelming sporadic or repeated tensions do individuals commit to de-territorialising from self-tracking and from becoming organised by metrics (and in turn, generating more material data traces).

8.3.2 Building on assemblage literature: Well-being as... relational, synergistic, and in flux

Further cognisant with Research Question 7 which asks how the qualitative insights produced regarding self-tracking develop our understanding further of well-being as emergent and relational, this section presents a framework to support a key proposition made here, which is that well-being can be conceptualised as *relational*, *synergistic* and *in flux*. Such framework helps to build on ideas surrounding well-being as emergent and relational. Whilst relevant to well-being literature more generally, this can also contribute to a greater understanding of well-being in the CCT literature. Such framework notably does also provide an alternative to others in existing self-tracking literature, such as the life-cycle of self-tracking framework (see section 4.3.4.4).

Specifically, the framework serves as a useful illustration for understanding how well-being can emerge throughout the process of interacting more, or less, with self-tracking objects in particular. The framework and propositions together support various ideas apparent in existing literature associated with the view that well-being is emergent and relational (McLeod, 2017). Together, they further help to leverage an argument regarding the value of assemblage thinking for bridging consumer culture theory with explorations of how consumption shapes well-being.

8.3.2.1 A new framework which reinforces well-being as relational, synergistic, and in flux

Resonant with the body of self-tracking literature which chapter 4 reviews, Millington (2016) articulates that to track with fitness interventions like wearables or apps is to manifest what is considered as key characteristics of the second fitness boom¹². Millington (2016) suggests the second fitness boom is sociotechnical – comprising entangled relations between human and non-human. Millington (2016) further describes the second fitness boom as interactive, whereby consumers generate data with their technologies, and technologies enact responsibility by responding/

¹² The first fitness boom is associated with the increasing take-up of physical activity by increasingly conscious individuals as well as exploding growth of fitness-based media, fitness apparel, and provisions including equipment. The second fitness boom is somewhat of an extension to the first fitness boom, albeit is characterised by further sophisticated fitness provisions like fitness hardware and software which transform what fitness involves.

communicating information back to consumers. The author also describes the boom as data-intensive, and as customisable. That is, consumers can interact with personalised, tailored products enabling the ongoing pursuit of self-betterment. This arguably extends the logic of personal responsibility. Millington (2016) proceeds further by articulating the fitness boom as networked. Individuals can connect with like-minded others with similar paths of experience or exploration through technologies which are at the centre of fitness interactions.

Based on insights this study generates, it is proposed here that to track and be affected by tracking in various ways is to manifest what are seeming characteristics of well-being. Some of these characteristics are comparable with those aforementioned. Specifically, proposed here is that well-being is *relational*. Well-being cannot simply be determined by the actions of individuals. Rather, well-being emerges from interactions between human and non-human components. Likewise, well-being is *synergistic*. Ways well-being evolves is contingent upon different human and non-humans comprising an assemblage performing work together (this notably depends on personal capacities and the capacities of others). Moreover, just as our identities cannot be perceived as static (Caruana, Crane and Fitchett, 2008) and our lives can be seen as in flux (Marchant and O'Donohoe, 2019), so can well-being. The following non-linear framework presented (see Figure 8.5) helps to reinforce this proposition by demonstrating well-being as a relational, synergistic, and fluctuating process.

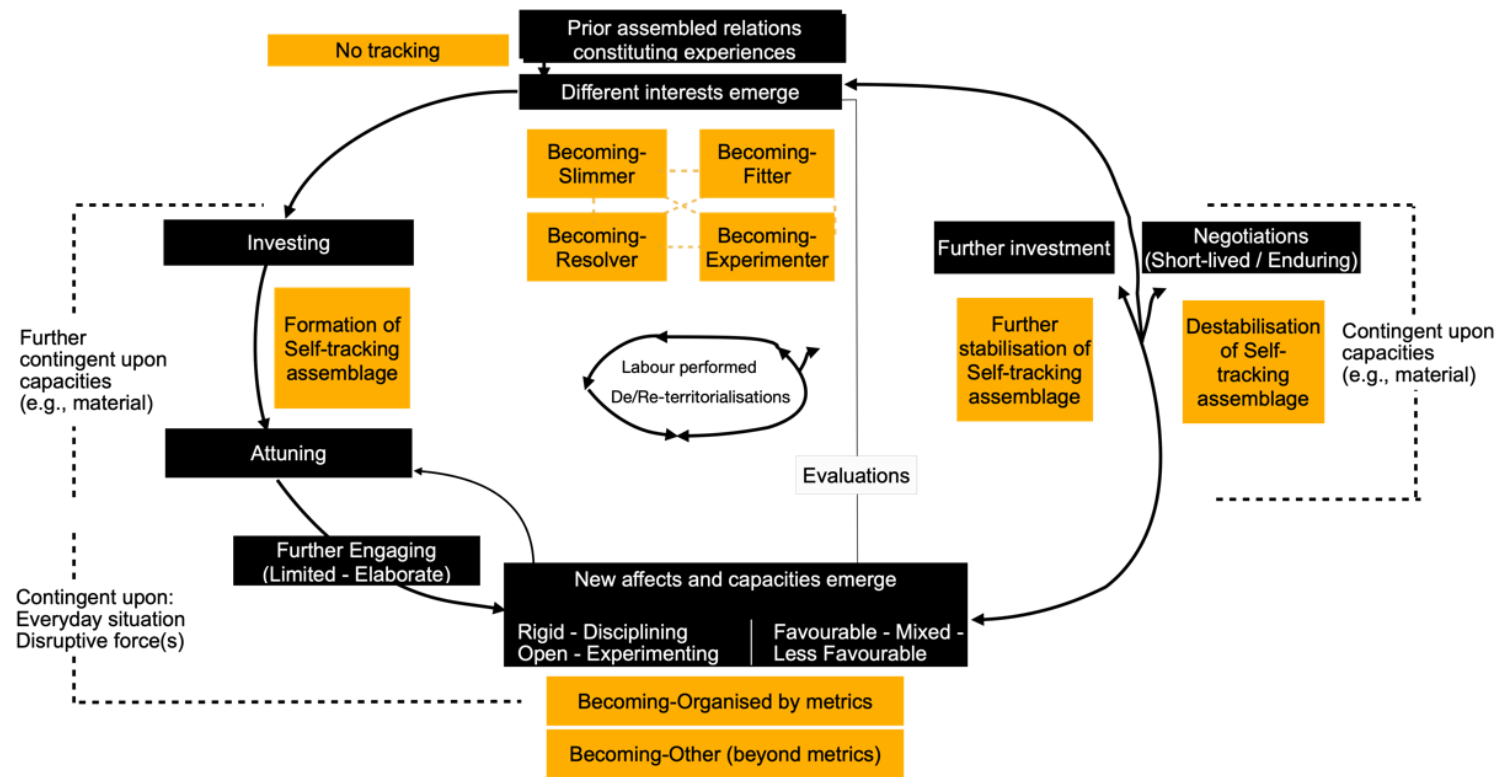


Figure 8.5 A vehicle for re-thinking well-being in light of self-tracking

In light of findings associated with self-tracking, the top of the framework depicts that significant to ways well-being emerges is individuals de-territorialising from a prior assemblage (e.g., one whereby there is no tracking and whereby particular relations with food and activity dominate) and individuals becoming open to pursuing new interests (e.g., becoming-slimmer). At the core of the framework, it is indicated that components perform labour throughout the process whereby well-being emerges in new ways. Resonant with insights from this study, it is apparent that labour performed when de-territorialising from prior ways of living can generally comprise of taking notice of particular affects emerging from encounters (e.g., when startled by a photograph). Moving on, the framework depicts that re-territorialising requires investing. This also entails labour. Indeed, as insights suggest, investing in self-tracking objects is significant to the formation of self-assemblages which are pivotal for transforming well-being. It can involve work such as taking notice of what self-tracking can do. This awareness of what self-tracking can do can be contingent upon the material capacities of self-tracking technology. To invest can also be contingent upon individual financial resources or the work of others and their expressive capacities such as discussing tracking or providing gift relations.

The framework further depicts that new affects and capacities emerging which transform well-being can then be contingent upon ways of attuning. Attuning is important for territorialisation, as chapter 7 alludes. The framework conveys that new affects and capacities emerging are also contingent upon how components within a new assemblage formed are interacted with upon attuning. In light of insights from this study, interactions may be more limited (e.g., when simply recording data) or more elaborate (e.g., when consulting data and socialising) and again can involve labour. From further insights this study generates – from diary entry recordings in particular – the framework highlights that ways of attuning and interacting (with self-tracking objects) can vary. Interactions can be contingent not only on what assembles in everyday life but also be contingent on any overriding disruptive forces.

The right side of the framework illustrates that further important to well-being is whether individuals maintain investment in an assemblage or negotiate their engagement. These actions are contingent upon prior affects and capacities which emerge and influence well-being. When individuals work to maintain investment in an assemblage (e.g., by habitually engaging with a device), the assemblage will become further stabilised. When negotiations which are short-lived or more enduring occur, meanwhile, the assemblage can de-stabilise. As the arrows indicate, this itself shapes

further ways well-being emerges. To maintain investment in the self-tracking assemblage can lead to a general repeated process of engaging, re-attuning, and experiencing capacities reflective of becoming organised by metrics. Alternatively, it may lead to making changes which eventually lead to the confidence to pursue new activities which go beyond metrics, as is evident from insights in section 7.4 and as this chapter earlier discusses, for instance. De-territorialising, on the other hand, can also lead to new and perhaps experimental ways of experiencing well-being, meanwhile. In such instances, different interests can emerge, investment in a new assemblage can occur, and the process of attuning and interacting with others in limited or more elaborate ways continues. Finally, the figure depicts that what emerges from an assemblage one is involved with can be evaluated in light of prior experiences and interests one is responding to.

Ultimately, the figure illustrates that ways well-being emerges (in light of self-tracking) is indeed rather complex, albeit in ways differing to what is more commonly assumed in various literature which chapter 3 reviews. In particular, approaches towards well-being which place emphasis on individuals exercising agency.

8.3.2.2 Well-being as relational, synergistic, and in flux: making further links with literature advocating well-being as emergent and relational

Noteworthy is that insights from this research generally affirm and build upon literature advocating well-being as emergent and relational. Section 3.3.3.3 of the literature review acknowledges authors including McLeod (2017) who posit assemblages constituting changes to well-being are established in response to limits or problems associated with another collective body. In support of this, there are clear insights which convey a turn towards a self-tracking assemblage is, for many, in response to problems or constraints that one becomes attentive to. Interventions like self-tracking technologies often become a significant “converter” (Deleuze and Guattari, 1987) - forming the pathway for a new assemblage and direction - after individuals experience moments which enable individuals to feel that making changes will be good. A significant de-territorialisation from a self-tracking assemblage and turn towards a new assemblage, meanwhile, can be in response to tensions encountered.

McLeod (2017) further argues that collaborative labour is involved when affective relations form. In the becoming-depressed assemblage, for instance, collaborative

work can comprise investing in medication as a solution, giving attention to the side-effects of medication, and repeatedly taking medication that works. In the becoming-authentic assemblage whereby capacities are expanded further, meanwhile, labour can comprise noticing connections with others when moving through available spaces. Corresponding with the proposition that well-being has synergistic characteristics, several findings demonstrate that collaborative connective labour is required to self-track in a way that works well. Depending on the individual and their unique situations, this can include trusting in self-tracking technology – this of which is enabled by the capacities of an app. Alternatively, this can include remembering prior ways of becoming affected and working with self-tracking technology with caution. This can also include being attentive to affects and capacities emerging when first attuning. Labour can also involve noticing what can be done when interacting with self-tracking technology and creating habitual routines (e.g., engaging with device/app and data regularly; ensuring devices are charged sufficiently) when capacities emerging are favourable. These capacities (e.g., moving more, or making careful food decisions) can be contingent on own bodily affordances, resources (e.g., time to track or respond to data consulted) and other connections such as accessible indoor or outdoor spaces.

McLeod (2017) also argues that individuals experience well-being as “affective flux” (ibid, p.150) as there can be ongoing interactions between assemblages with more limiting affective capacities and ones with more enlivening capacities produced. This is resonant somewhat with insights which indicate well-being can be experienced as flux when individuals transition between not tracking, tracking, and negotiating tracking. This is also resonant with insights which further demonstrate that well-being can be experienced as flux as when individuals’ do track but interactions with self-tracking objects vary. Disruptive forces which have received greater attention within this research can also contribute to ways well-being changes. Individuals may transition between ill-health and/or resting before tracking again, for instance.

Perhaps one of the strongest implications of the findings, however, is ways insights are comparable with another argument put forward by McLeod (2017) and touched upon in section 3.3.3.3. To elaborate, McLeod (2017) argues that caution should be taken against the propositions that more healthful assemblages are those whereby life is extended more greatly to the limits. Such a view is argued by other authors including Duff (2014). The view suggests a more healthful assemblage is one whereby forces of physical and social territorialisation are resisted (Fox, 2011).

McLeod (2017) suggests, based on insights from their study, that a “series of modulating assemblages is necessary for lines of flight to be part of everyday life in a manageable and sustainable way” (ibid, p.150). A move focusing beyond metrics can be enlivening, but organised forms of life can also be required.

The insights from this study alongside Figure 8.5 reinforce some of what McLeod (2017) suggests. To reiterate earlier points in the discussion, somewhat rigid assemblages (like that of self-tracking whereby individuals become organised by metrics and manifest normative ideals) can transform well-being in ways that are favourable and mostly sustainable. Furthermore, which can be welcome after emerging from assemblages with diminishing or less favourable responses provoked. Such assemblages can also be further productive for some, opening up opportunities for well-being to be experienced in more enlivening ways. Going further, more extreme lines of flight may notably not be evidenced by many within this research (contra to several participants within studies like McLeod (2017) who straddle between experiencing intense lines of flight and more organised assemblages). They may even be difficult if there is limited imaginative capacity regarding not tracking. Nevertheless, in cases like that of Russell, to emerge from a self-tracking assemblage can be a significant part of a wider process of moving to a further experimental assemblage whereby new affects and capacities can be appreciated greatly.

Relatedly, then, insights within this research help to further leverage the argument that contra to more sceptical readings of territorialised assemblages (e.g., Fox, 2011), it is valuable in some instances to not resist becoming territorialised by assemblages like self-tracking. To resist could, in some instances, potentially lead to further or ongoing diminishment. Furthermore, in some instances, this could conceal opportunities for enhancing well-being in different (albeit, perhaps normative) ways. To concur with a further point which section 4.3.3 of the literature review acknowledges, to simply advocate resistance from engaging in tracking is not necessarily viable (Sanders, 2017). Nevertheless, this is not to overlook that it can be better also if participation in a self-tracking assemblage opens up the potential to establish more relations which are not necessarily predominated by data-driven goals. In such instances, well-being can be enhanced and nurtured in further energetic and intense ways.

Given the proposed characteristics of well-being and the aforementioned implications, it is fitting to argue that the process of shaping well-being is one that can

further be considered as 'Becoming-Well'. This is a term employed only infrequently across wider literature (e.g., see Duff, 2014). Nonetheless, it helps to capture the sentiment of well-being as a process, whereby changes important to well-being are cultivated when particular relations (e.g. between body, device, data, spaces navigated) assemble. These changes are constitutive to general pursuits such as sustained experiments with technology or pursuits towards becoming fitter, slimmer, or addressing conventional health issues to feel and/or do better.

A further implication of insights from this research, then, is literature suggesting that well-being is transformed by predominantly individualistic endeavours and individuals taking responsibility can be contested.

8.3.2.3 Re-thinking well-being as becoming-well: making links with CCT literature

As the aforementioned section conveys, insights this research generates alongside the visual framework support a re-thinking of well-being. This is further important for helping to overcome limits and addressing opportunities identifiable within CCT literature.

As earlier sections throughout this thesis acknowledge, coverage of well-being is limited in CCT literature. Where well-being is given attention, it is often approached in a typical way. Some literature depicts well-being as part of an ideological agenda whereby consumers' embrace marketplace discourses of power, act upon beliefs and take control by resisting mainstream medicine. In particular, by consuming products determined to have certain capacities which unlock better well-being, mitigate ill-health, and facilitate an ideal lifestyle (Thompson and Troester, 2002; Thompson, 2004). Similarly, some literature depicts well-being as part of an ideological agenda, whereby individuals take responsibility for well-being. This can be through pursuing goals with the support of other people and shared resources (Albinsson, Perera and Shows, 2017). Or, alternatively, responding to expert knowledge and engaging in self-governing and seemingly responsible behaviours encouraged by a provider (Giesler and Veresiu, 2014; Yngfalk and Fryberg Yngfalk, 2015) or connecting with a supportive community of like-minded individuals (Moisio and Beruchashvili, 2010).

The insights this research generates, therefore, help to build upon existing well-being coverage by offering rich detail regarding the significance of both human and non-

human components for mediating well-being. It is not intended here to deny individual agency nor to deny the potential influence of marketplace discourses that can be part of a wider social formation. Nonetheless, insights from this research do help to steer away from focusing predominantly on individuals taking sole responsibility to pursue their own goals or pursuing behaviours mainly because they are endorsed as socially constructed ideals. Furthermore, whilst certain normative ideals can manifest, insights from this research direct attention to actual changes actualised, contingent upon relations assembling and the capacities of human and non-human components to be affective. By providing a visual framework, a significant step is taken in bringing the phenomenon of well-being (as relational, synergistic, and in flux) more closely and explicitly into the spotlight.

Going beyond existing coverage of well-being, this research offers empirical insights which further give support to other ideas regarding assemblages offered in particular (e.g., Hoffman and Novak, 2015, 2018). Indeed, as the earlier part of this chapter discusses, the role that self-tracking objects can play in fostering can be contingent to some degree on material capacities enabled. Alternatively, the role of self-tracking to shape well-being can be contingent on whether self-tracking technologies become resisted and reacted against in cases where there is a perceived threat. The (sustained) role self-tracking objects can play for fostering ways well-being emerge can depend upon whether an assemblage becomes stagnant or self-reducing.

By accounting for ways well-being emerges in light of prior ways of living and new interests emerging, this research also provides insights resonant with what scholars including Arnould and Thompson (2015, 2018) articulate to be important. To reiterate points which section 2.5.4 of the literature review acknowledges, the authors argue that there is a significant opportunity for CCT researchers to better account lines of stratification and lines of flight. That is, ways power relations are maintained or resisted (Deleuze and Guattari, 1987). The research identifies, through the provision of specific and detailed examples, ways that particular actions (e.g., engaging with food in a reasonably strict way; data-driven exercise) can become normalised and legitimated in everyday life. Alternatively, diverted away from. Similarly, the research identifies ways particular feelings (e.g., feeling better in some way when consulting data representing what is perceived to be 'good') can become normalised. Relatedly, throughout this discussion (see sections 8.2.4.2, 8.3.2.2) it has become clearer how feelings and actions generated from partaking in assemblages like that of self-tracking reflect more disciplining and/or liberating ways of becoming well, bearing in

mind prior ways of living. These actions and feelings can include reasonably strict food practices, data-driven exercise, and feeling better when consulting data representative of what is perceived to be 'good'.

All in all, then, this research reinforces literature which suggests the value of moving beyond consumer-centric approaches (Bogerson, 2013; Canniford and Bajde, 2015). The research conveys that assemblage thinking and well-being can be valuable to bridge together for shedding further light on ways well-being is generated.

8.3.3 Becoming-well: paradoxical relationships between human and non-human

Directing attention to interactions between components comprising a self-tracking assemblage and to changes generated that are constitutive of becoming well enables further insights regarding paradoxes of technology. Based on insights that this research generates, this section highlights particular paradoxes that can emerge. The section also contributes insights regarding attentive responses to paradoxes.

8.3.3.1 The significance of better understanding paradoxes

As section 2.3 of the literature review outlines, a paradox is, according to Mick and Fournier (1998), something contradictory or inconsistent. It is something or does something, whilst simultaneously not. Mick and Fournier (1998) argue a paradox perspective assumes things (e.g., technological objects) harbour a "paradoxical nature" (ibid, p.125). Paradoxes are assumed to be central to technological objects. This is concurrent with other arguments that paradoxes are "intrinsic" (Järvenpää and Lang, 2005). As chapter 2 (see Table 2.1, section 2.3) further alludes to, authors including Mick and Fournier (1998) identify eight key paradoxes provoking ambivalence, conflict, or even "emotional havoc" (ibid, p.132). This provokes consequent coping strategies (Mick and Fournier, 1998).

Paradoxes associated with technological objects are explored in various contexts. This includes paradoxes associated with the internet (Penz, 2007) and mobile phones (see Järvenpää and Lang, 2005; Zolfhagarian and Yazdanparast, 2017; Marchant and O'Donohoe, 2019). Paradoxes are further linked with practices including text messaging (Baron, Patterson and Harris, 2006). Coverage remains limited, however,

regarding paradoxes associated with other technologies whereby close, intimate relationships develop, and whereby pertinent practices occur. This includes paradoxes that can be associated with self-tracking technologies.

Paradoxes associated with self-tracking are rarely recognised explicitly. Authors including Etkin (2016) are generally more implicit. Indeed, whilst not explicitly suggesting self-tracking can be paradoxical, Etkin (2016) conveys that engaging with a pedometer to quantify activities such as walking can be both increasingly engaging but also disengaging for individuals who typically do such activity for enjoyment. That is, focusing on measurements can increase physical activity. It also can hinder enjoyment and make physical activity feel more like work. Literature whereby recognition to paradoxes is more explicit, nonetheless, includes recent literature entitled “the Quantification Paradox...”. Within this text, Charitsis (2019b) articulates that self-tracking can evoke complex and mixed responses. The author asserts that self-tracking is “full of tensions, paradoxes...” (ibid, p.42). Findings which are drawn upon, however, are predominantly referred to as “ambivalent” responses provoked from tensions experienced. Specific paradoxes identifiable in the aforementioned literature (e.g., Mick and Fournier, 1998) are apparent but not explicitly discussed.

An implication, then, is there is scope for findings within this study to contribute to a relatively scant body of work. This is significant considering further points which existing literature articulates. To elaborate, scholars including Mick and Fournier (1998) argue paradoxes are a relevant concept raising intriguing questions. This includes questions regarding what paradoxes are predominant in a given domain and questions regarding how paradoxes are managed. This also includes questions regarding whether the paradox concept can be used to advance other theories. Although an oversight to not acknowledge that this text is reasonably outdated, new literature reinforces the relevance of the paradox concept. As is apparent in the introductory chapter, scholars including Zolfagharian and Yazdanparast (2017) claim considerations of paradoxical influences of technology – especially regarding well-being – are a “fruitful area for theoretical contribution” (ibid, p.1328).

8.3.3.2 Paradoxes emerging

Insights from this research indicate particular paradoxes can be salient (to note, this does not mean here that technologies are determined to have by nature paradoxical

capacities. Rather, paradoxes become actualised in given situations assembling). From the existing discussion, it is clear that a disciplining/liberating paradox is relevant generally. This coincides somewhat with the freedom/enslavement paradox Mick and Fournier (1998) identify to be generally applicable. To clarify, this paradox suggests technology can facilitate independence and fewer restrictions or facilitate greater dependence and more restrictions. Other paradoxes Mick and Fournier (1998) identify, which are comparable with research findings regarding activity tracking especially, include the fulfilment of needs/creation of needs paradox and engagement/disengagement paradox. To clarify, the fulfilment of needs/creation of needs paradox considers whether technology can facilitate the fulfilment of needs or desires but also lead to the development of awareness of needs or desires previously unrealised. The engagement/disengagement paradox considers whether technology can facilitate involvement, flow, or activity or prompt disconnection or passivity (Mick and Fournier, 1998).

An additional paradox this section proposes, nevertheless, includes what is articulated as “empowering/disempowering”. This paradox is reflective of the potential of data to encourage and open up new opportunities but also the potential for data to generate less or mixed feelings when consulted. It is also reflective of the limited potential of data to foster changes in action. The section also suggests a control/chaos paradox can be relevant, given other tensions that can emerge. Table 8.1 provides details regarding examples of paradoxes that can emerge.

Paradox emerging	When food tracking	When activity tracking
Freedom/Enslavement	<p>Planning what to eat can be contingent upon tracking but this can be “liberating” or feel relatively free compared to other alternative relations with food.</p> <p>Tracking food can be perceived as helpful for coming closer to goals but can also be demanding.</p>	<p>There can be a compulsion to record all activity data or review data, but this is appreciated as it is encouraging.</p> <p>Tracking activity can provoke favourable changes but can also create a sense of dependency or necessity. Data can also be hard to separate oneself without noticing less favourable affective responses.</p> <p>Competing with others can be enjoyable but also the efforts it encourages can be intrusive and entail labour.</p>
Fulfilling/Creating needs		<p>Data can be motivating and encourage exercise but simultaneously lead to more labour (e.g., adjusting goals or working harder to meet goals or attain a reward (e.g., challenge win or badge)).</p>
Engaging/Disengaging		<p>Becoming data-driven can be empowering but can also distract one from doing something else that might be beneficial.</p> <p>Data consulted during an activity (e.g., when training) can be distracting but also help manage performance</p>
Empowering/Disempowering	<p>Data can help with accountability but also has limited potential to prevent derailing from food plans or goals.</p> <p>Recording food and consulting data can enable a greater sense of control but tracking food is not always appealing.</p>	<p>Data can encourage efforts to move more but data can also generate less favourable or mixed feelings.</p> <p>Data can facilitate the readjustment of goals upon less favourable responses produced.</p>
Control/Chaos	<p>Tracking food with an app can evoke feelings of control but also problems</p>	<p>Data can provoke stress and upheaval but can also be reassuring as certain situations unfold</p>

Table 8.1 Examples of paradoxes that can emerge

It is rare for participants to imagine or anticipate tensions surrounding freedom/enslavement when first starting tracking. For exceptions, consider comments from participants such as Carole who expresses that she would like a tracking device to help “prod” her to move more and to help overcome prior limitations. This is relative to the device becoming a “shackle” (see section 6.4.1). Alternatively, consider comments from participants like Danny, who is conscious of the destructive potential of food tracking (see section 7.2.1). Particularly interesting, though, is whilst several affective capacities emerging from tracking indicate this paradox can be actualised, insights suggest the typical framing of this paradox by authors like Mick and Fournier (1998) is also somewhat contestable

Specifically, questioned here is whether the title of this paradox is too harsh. Titles such as “enslavement” can be associated with suppression. Moreover, “enslavement” suggests individuals are increasingly likely to experience a sense of “fear” about becoming “overpowered” when capacities are enhanced and when empowered (Marchant and O’Donohoe, 2019, p.468). Yet, most participants within this study do not seem to experience such visceral responses. There is a sense from various participants of being heavily attached, dependent, or even somewhat obsessive about the devices and data they interact with. As is evident in chapter 7 and as touched upon earlier throughout this discussion. Nonetheless, many (albeit not all) individuals within this study generally relish becoming subjected to molar forms of organisation (Deleuze and Guattari, 1987). They enjoy becoming organised by metrics and enjoy their intertwinement with self-tracking technology. It can become easy to desire further investment in self-tracking objects and partake in regimented, disciplining activities. This is apparent in instances such as those whereby there is greater potential for generated data to produce welcome and seemingly ideal changes. Changes ranging from a better sense of meaningfulness and purpose to having fun doing challenges and competing with others, for instance. The sense of liberation constituting the disciplining/liberating paradox is seemingly overriding for many.

Several comments made by participants reinforce this. To reiterate with a few examples, Naomi comments she doesn’t “mind “being governed” (as section 7.3.3.4 alludes). Hugo, meanwhile, makes further comments indicating the absurdity of behaviours provoked by challenges (as section 7.3.2.1 acknowledges) is “a bit of a laugh really” and such behaviours are welcome as they are supporting the improvement of conventional physical health. Lisa, who expresses some scepticism

towards becoming reliant on tracking (as section 7.3.4 indicates), also generally evaluates tracking as “positive” and as having “exceeded my expectations”. She explains it has yielded “huge benefits to my lifestyle which I could have done without it but probably wouldn’t have”.

Findings demonstrate that only in some circumstances whereby there is a sense of intrusion upon daily activities is there a greater sense of “enslavement” which participants express. The capacity for enslavement to be actualised for participants including Megan, Russell, and Lincoln, for instance, is most apparent in situations whereby data becomes compelling and even perhaps counterproductive (as discussed in section 8.2.3.2 and 8.2.4.1).

Based on this, it is tentatively suggested that in the context of this study’s findings, the paradox ‘freedom/enslavement’ could be better articulated as ‘freedom/overdependence’. This differs slightly from the paradox ‘independence/dependence’ which other authors (e.g., Järvenpää and Lang, 2005) articulate. The latter reflecting opportunities for new freedoms by engaging with mobile technology (ibid.) but also reflecting individuals’ “always-on” status (Turkle, 2008). The paradox ‘freedom/overdependence’ is suggested here instead to reflect the potential for well-being to be enhanced when emerging from a self-tracking assemblage that comprises the intertwining between individuals, devices, data and so forth. Affective interactions whereby change occurs can help with overcoming prior constraints, responding to challenges, or experimenting in ways that are appreciated. Devices/apps and data can continue to become interacted with more than could have been anticipated, however.

Another further interesting insight to elaborate on, meanwhile, is paradoxes which can be associated here with control and chaos generally are only striking in rare situations. This contrasts with Mick and Fournier (1998) finding that this paradox is especially salient and likely to most frequently experienced daily.

8.3.3.3 Attentive responses to paradoxes emerging

Some insights demonstrate that individuals aware of potential tensions that can emerge from particular interactions take actions comparable with those Mick and Fournier (1998) posit. Expressing a preference for a basic device, and accepting such a gift, as is done by participants such as Carole, for instance, resonates with

consumers' decisions to buy basic products to avoid becoming enslaved. This is relative to sophisticated ones (ibid.). Cautious forms of attuning are another strategy identifiable within this research. Noteworthy is that to attune cautiously cannot simply be viewed as a consumer becoming savvy, proactive or making careful decisions. The savviness and proactiveness of consumers is associated with consumers giving attention to what is bought or engaging in extended decision making (Mick and Fournier, 1998).

To be cautious when attuning can also not be necessarily determined as individuals trying to master an object through personal strivings (ibid.). To elaborate on the aforementioned points, insights in section 7.2.1 convey that for participants like Russell with familiarity with an app, there is a greater sense of attempting to master a new relationship, particularly, by restricting the capacities of an app (Hoffman and Novak, 2018) and expressing confidence about policing tracking. This is resonant with the interpretation that consumers can "command" how technology is engaged with (Mick and Fournier, 1998, p.138). For participants like Danny, nonetheless, the collaborative work efforts associated with negotiating engagement with an app and learning ways of working with it are clearer. Nervous, Danny's efforts are contingent upon own capacities and the capacities of various others. This includes the capacity of friends to provide support by overseeing the tracking process and material capacities of the self-tracking objects.

When tensions are actualised, meanwhile, individuals respond in various ways. It is clear from ways interactions with tracking are affective across different periods that for participants like Russell, the process of "policing" is fraught with constant negotiations. This includes negotiations associated with how much attention to give to the capacities data can exercise. This is until de-territorialising from a self-tracking assemblage and doing what Mick and Fournier (1998) articulate as abandoning a technology. Interestingly, whilst Mick and Fournier (1998) argue this a suitable response for managing any paradox, it is rare within this study to see other instances of this (except in other instances whereby participants like Megan, de-territorialise from tracking with any particular devices or apps). Moreover, contra to insights from Mick and Fournier (1998), there is not necessarily a sense of "superiority" (ibid, p.141) complementing such de-territorialisation. This is because de-territorialisation may only be gradual. Alternatively, there is scope to emerge from a self-tracking assemblage once again.

Alternate ways of negotiating which shape well-being further, meanwhile, can include substituting, or can coincide with what Mick and Fournier (1998) articulate as rule-based distancing. Rule-based distancing is argued to be appropriate for managing any paradox (ibid.). This is evident in instances such as when taking a break so that the allure of data does not disrupt enjoyable connections with outdoor wildlife (as is the case for Tony in given moments). Alternatively, when taking a break from tracking in circumstances whereby it would be disempowering and less relaxing to track (as is the case for Rose). Given many individuals value tracking, become reasonably dependant, and given tracking can fail to provoke significant emotional havoc, nevertheless, it is perhaps unsurprising that many participants tend to partner (Mick and Fournier, 1998) by maintaining investment with self-tracking objects. Efforts are directed towards wearing a device regularly, charging devices at particular times to ensure one can record data or consult data. There can be a sense of deep attachment, and to not track can be less favourable.

To simply advocate partnering as an attentive response is perhaps underrating, nonetheless. Though with merit, this falls short of capturing what other literature within chapter 2 of the review or this discussion acknowledges. That is, the potential indispensability of an assemblage (Hoffman and Novak, 2018). This discussion earlier recognises that to march on with digital relationships can be lasting and to be “wired” is not necessarily terrifying. To go further, it can be argued that though ways well-being can be transformed is imbued with paradoxes, transformative experiences can, in various cases, lead to self-tracking objects becoming somewhat of an “inseparable prosthesis” (Šimůnková, 2019). This is evident from comments by participants which indicate it is difficult to imagine not tracking.

Though rarer, another attentive response emerging, and which lacks attention in existing literature drawing upon paradoxes of technology, is that of an individual exercising imaginative capacity in response to paradoxes like freedom/enslavement. This response provides further leverage to the idea that assemblages can become indispensable (if other disruptive forces are not overriding). As insights within section 7.3.4 convey, tensions can emerge for participants like Lincoln. Nonetheless, there is some appreciation for becoming well in a way that is data-driven. Consequently, there is an attempt to recreate relations to try to be affected in a way that will motivate and empower a favourable energy.

To become well, then, can comprise paradoxes and particular attentive responses. Relevant insights, nonetheless, do not always strongly resonate with those proposed by other key authors, and sometimes diverge somewhat.

8.4 FURTHER INSIGHTS AND REFLECTIONS REGARDING METHODS

The methods employed throughout this thesis have enabled rich data and relevant insights which can contribute to theory. Nonetheless, the employment of particular methods in an attempt to better understand self-tracking and well-being – cognisant with Research Objective 2 - has led to further insights also. In particular, insights regarding ways participants can be impacted by the research. Furthermore, insights regarding the advantages and drawbacks associated with particular methods.

8.4.1 Participants emerge from the research process in new ways

This section considers the implications of methods for shaping participants thoughts, feelings, and/or actions.

It is evident that for some participants, an opportunity to take part in an interview can be fruitful for sharing insights, and new thoughts and realisations can emerge. Comments from participants like Rose exemplify this. As is evident from the findings chapter (see section 7.3.4), Rose makes comments suggesting an invitation to participate in the study may not generate a committed response if self-tracking is encountered in less favourable ways (contributing somewhat to the decision to modify the participant recruitment strategy). At the same time, Rose also makes comments suggesting that an opportunity to share experiences of self-tracking is valuable and novel. Indeed, Rose expresses an interest in participating in an interview as she recognises tracking has become significant. She remarks: “That’s why I wanted to get involved in this. I think it just changed everything”. Though finding it “weird talking about it because I have never done this” she also states that she thinks “that is why I had to”. By the end of the interview, Rose makes comments suggesting a greater understanding of the capacity of self-tracking objects: “I knew I used it a lot, I just don’t think I realised quite what it means to” and “do you know what, I could sit and talk to you for about 3 hours because I realise it’s something in my everyday life but I just don’t talk to people about it”. Likewise, other comments from participants included: “The interview has made me think a lot more about why I use it”

Diary recordings, too, generated new realisations regarding self-tracking. For Danny and Tina, recordings heightened their awareness to how one tracks. Follow-up interview remarks such as the following illustrate this:

“It is an interesting thing with the diary, the differences between what I think I do and what I actually do when I sit down and look through or data.” (Danny)

“With it being like a month, it highlights what you actually do use it for and how often you use it. I don’t think I am obsessed as I thought I was.” (Tina)

Diary recordings were further productive for some in the sense that they shaped interactions with self-tracking objects or became themselves a means for enhancing well-being in ways associated with particular interests. This was particularly notable amongst participants using a diary app. Carole, for example, anticipated at the end of our interview that recording diary entries would be “interesting” to notice more so ways tracking was affective. She later acknowledges that interacting with the diary app is reassuring as it became a “positive driver that I’m at least doing what I can”, however. This is in addition to making her, alongside her Fitbit app, “more motivated to up my exercise to reach my goals”. For participants like Russell, meanwhile, a significant implication of the process of recording diaries with an app is that it contributed at least in part to de-territorialising from a data-oriented training regimen. During the follow-up interview, Russell explains that he “took on the diary, in part, I seem to remember, as a way to motivate my engagement in the gym” but through the process of keeping a diary and “communicating my relationship with the gym app” he was shaped in new ways. As Russell goes on to state:

“it was rewarding participating in your study in ways that I had not anticipated. I came into it thinking this is going to help me keep on the straight and narrow, and it has helped me consolidate my thoughts on why I shouldn’t be in the gym at all.”

These insights are worthy of acknowledgement. Researchers adopting relational thinking are encouraged to consider what particular methods can do (Fox and Alldred, 2018), or document ways those involved with the research shift as an entity (Bettany

and Woodruffe-Burton, 2006, 2009). These insights help draw attention to additional capacities that particular methods such as interviews and diaries can generate when participants draw upon particular memories and experiences. Participants become increasingly reflexive and aware of how they are entangled with particular relations, for instance. This is interesting given calls for researchers in marketing and consumer research to direct more attention to the active role participants can play in questioning and scrutinising aspects of their life.

8.4.2 Advantages and challenges associated with particular diary formats

This section now directs attention to the advantages and drawbacks associated with particular methods to advance methodological knowledge. This section draws upon insights associated with diary formats employed especially. The rationale for this focus is that diaries still receive limited attention in marketing research, despite the recognition of their value in exploring an array of issues over a decade ago (see Patterson, 2005). Insights associated with particular choices surrounding diary methods are further underexplored in marketing texts.

As section 5.4.3.2 of the methodology chapter indicates, the design associated with diaries was engineered in such a way that various diary formats were available to participants. The main justifications for this being to mitigate challenges associated with diaries and make a significant effort to encourage participant commitment. As further indicated within the methodology chapter, preferences for different formats varied. A first insight, then, is why particular formats may be more preferable to others. To elaborate, where e-mail was a preference, this was mainly because participants were used to working on a computer or would normally go on their computer. One participant also made a remark suggesting typing and e-mailing is more familiar and seems more sensible than another format such as an app.

“I think because I am old school. I spent 20 years working in an office so typing a thing into word... I find a lot of websites and apps frustrate me...so I find a lot of apps, that one (fitbit) is not so bad, but there are certain things I don't find them intuitive. It doesn't make sense to me...one try and then done. Whereas word I can just type.”

Interestingly, the participant who made such remark (Carole) did notably change her mind and decided to record diaries with the app instead after 1 initial entry. She asked via email:

“Is it possible to use the app instead? I've realised that I have to take time to crank up the laptop on an evening, whereas I guess the app I can use anywhere.”

This raises further insights. Firstly, the reinforcement of the importance of flexibility regarding diary formats to encourage participant commitment. Secondly, the potential for a diary app to be more convenient. The convenience of an app did become evident by further comments from participants suggesting the app was “easy to use” for instance.

The inclusion of a simple albeit innovative app generated further insights regarding challenges and benefits. As is discussed within the methodology chapter (see section 5.5.2.3), particular technical challenges arose like that of exclusions, for instance. Indeed, the app was only accessible to participants with an Android smartphone. Notable is that some other participants with an iPhone committed to an alternate diary format. Moreover, there were only a limited number of participants ($n=4$) with an iPhone interested in diary keeping who did not commit, and in some instances, other reasons such as being “busy” contributed to this. Nonetheless, it is plausible that further insights that can be generated are potentially missed when such a challenge arises. One lesson learnt, then, which concurs with that articulated by Radcliffe and Spencer (2018) and Spencer and Radcliffe (2018), is ideally an app working across platforms should be offered. Otherwise, other efforts to work around these limits may be required.

Some scholars (e.g., Garcia, Welford and Smith, 2016) have encountered other challenges like that of their diary app not working properly on some mobile phones despite testing the app. Indeed, one participant dropped out of their study, whilst others had to work more to download updated versions of the app or alternatively stopped using the diary app. Interestingly – and thankfully - no technical problems were evident within this study. As one participant commented, “it was functioning fine”. Albeit, this was most likely due to extensive and repeated testing of the app on updated emulator software as well as on phones. To reinforce what Garcia, Welford and Smith (2016) argue then, extensive testing is recommended. To stress here,

however, this should include checking the app works across different platform versions (e.g., Android Lollipop, Android Marshmallow).

By including a diary app within this research, further insights regarding benefits were garnered. For instance, it became clear that a diary app (or using a phone to record audio) can be useful due to portability. Participants such as Russell sometimes recorded audio entries whilst walking home from the gym which was further beneficial for shortening the time between tracking workouts and reflecting on this (reducing retrospective bias). Natasha, meanwhile, once recorded an audio entry whilst “holding the baby”. This helped to convey that audio entries can produce greater volumes of rich material. To elaborate, Natasha’s audio entry once transcribed was lengthier than text entries, which reinforces Monrouxe (2009) who posits audio recordings can lead to participants giving more specifics and being more detailed. Indeed, in recordings like this which is one of a few to illustrate that tracking produces mixed feelings, Natasha is comprehensive about how consulting data (e.g., step counts, badges) shapes her feelings. She is also more detailed about further implications of tracking and exercising more, like that of treating herself to workout clothes (as touched upon in the findings chapter).

Audio entries across participants ranged from 4 minutes to 19 minutes, 29 seconds, and some of these (particularly the ones 14 minutes or more) exceeded the longer recordings of almost 14 minutes found in other studies (e.g., Monrouxe, 2009) and 5-10 minutes initially proposed/anticipated by Garcia, Welford and Smith (2016). This suggests researchers offering audio options should consider that recordings may be lengthy. If offering an app, in particular, challenges associated with audio caps which limit the volume of material that can be recorded (Garcia, Welford and Smith, 2016) should try to be offset. In this research, this was accomplished by compressing file sizes to fit into e-mail attachments. Only some participants may feel comfortable recording by audio, however. Notable is that several participants interacting with the diary app decided to type their entries instead. Only two participants (Russell and Lincoln) recorded audio more than once. Even with the latter participant, however, this was mainly due to efficiency. Resonant with insights elsewhere (e.g., Crozier and Cassell, 2016), recording audio could still feel rather alien. In an earlier entry, Lincoln expresses:

“It is going to take some getting used to, talking to myself...I am recording these before I read the question so that I can feel like I am

talking to someone. It feels a little weird reading the question and then hitting the record button. I hope you can bear with that.”

It also became apparent that typed entries done through the diary app were more likely to capture particular reactions to an event than that of diary entries done via e-mail or pen and paper. This was valuable for making sense of data regarding affective responses to tracking and new capacities generated. Though this may have been due to the enthusiasm of participants or other characteristics, the use of emoji's or use of exclamation marks, when happy or excited, for instance, was more prominent across app entries.

Further evident is the diary app also generated researcher benefits which were less possible with other diary formats such as e-mail or pen and paper. Echoing others (e.g., Garcia, Welford, and Smith, 2016), it was easier to track if and when participants were recording diary entries as they were emailed straight away.

Though offering an array of insights surrounding diaries not yet elaborated upon in marketing research, insights such as those regarding the diary app are further valuable as they essentially respond to calls to build on our understandings of apps which are under-researched but potentially valuable in qualitative research (Garcia, Welford and Smith, 2016).

8.4.3 *Diary methods can generate insights otherwise concealed*

The employment of diaries enabled relevant insights to be generated which otherwise may not have been so evident. For example, as is evident from 7.3.4, insights generated from diaries helped to highlight ongoing tensions that can emerge. These tensions contribute to highlighting the process of becoming well as one comprising paradoxical elements. Links between paradoxes and well-being are underexplored and called for. An innovative approach towards diary analysis also allowed for new insights regarding ways interactions with self-tracking technologies and changes generated constantly vary. Going further, it became striking that all trajectories between participants were different, with no obvious similarities. As is apparent from visuals and textual insights presented within Chapter 7, all trajectories are unique. This highlights the messy nature of self-tracking and well-being. There is no one size which fits all. Ways well-being is transformed by self-tracking is contingent on particular relations assembling in everyday life.

8.5 CHAPTER SUMMARY

This chapter weaves together significant insights from existing academic literature and empirical data. This serves the purpose of revisiting research questions central to the study and provides a foundation for interrogating further implications for theory. There are multiple implications for theory. To clarify, insights help to build on existing well-being literature by affirming fresh ideas surrounding well-being and illustrating further ways well-being is relational, synergistic, and in flux. This bolsters the argument that 'becoming well' is an appropriate term. Concurrently, such a theorisation of well-being contributes to CCT by highlighting the significance of drawing further upon ideas associated with assemblage thinking to bridge a gap. The context - that of well-being emerging in light of self-tracking – also adds to a growing body of work focusing on human-digital technology assemblages in particular. By demonstrating greater vigilance to relationships with self-tracking technology, ways the process of becoming well can be fraught with paradoxes also is clearer. The insights associated with paradoxes are especially fruitful given questions regarding paradoxes are hitherto under-explored. This chapter further illuminates insights regarding particular methods employed.

This thesis now turns to the concluding chapter, which reiterates the purpose of the research, summarises key contributions of the research, suggests avenues for further research, and draws the thesis to a close.

CHAPTER 9: CONCLUSION

9.1 INTRODUCTION

This chapter summarises the contributions of the study, offers suggestions for further research, and brings the thesis to a close. The structure of the chapter is as follows: Section 9.2 reiterates the aim of the research and the questions this thesis has sought to address. Section 9.3 illuminates the theoretical contributions. Section 9.4 summarises methodological contributions, and section 9.5 offers practical implications. This precedes section 9.6, which reflects on the limitations of the study and recommends avenues worthy of further research. The chapter closes with a summary of the research and some lasting thoughts.

9.2 RESEARCH AIM AND QUESTIONS

This thesis aimed to better understand the ways self-tracking can contribute to experiences of well-being for general members of the public who interact with devices and/or apps associated with health and fitness. The research questions focused upon were:

RQ 1: How is well-being and self-tracking understood in existing literature and what opportunities for exploring well-being as less individualistic can be built upon?

RQ 2: How can exploring ways well-being is experienced for self-trackers effectively contribute to relevant research associated with CCT which focuses beyond consumer agency?

RQ 3: What human and non-human components influence individuals to start interacting with health/fitness wearable devices and integrated apps, or standalone apps?

RQ 4: How do individual's interact with self-tracking technologies and (how) do interactions change across circumstances?

RQ 5: How do individual's interactions with self-tracking technology contribute to ways that well-being can emerge?

RQ 6: How do new well-being possibilities (opened up/concealed/overshadowed) from self-tracking compare with what individuals experience when not self-tracking with particular health/fitness wearable devices and integrated apps, or standalone apps?

RQ 7: How do the qualitative insights produced develop our understanding further of well-being as emergent and relational and what are the implications for practitioners interested in promoting well-being?

The findings confirm that well-being can be complex and is relational. Self-tracking objects can perform multiple roles which are relevant to ways well-being emerges in given situations. The findings also suggest that individuals turn to self-tracking to negotiate well-being after becoming affected by other human and/or non-human components. Additionally, findings suggest that self-tracking is not always a straightforward practice which produces favourable changes within the life of an individual. Self-tracking requires working relationships between individuals and data. There can be disruptions. There can be tensions. Nonetheless, to emerge from a self-tracking assemblage can often be enhancing.

To reinforce some insights which build on existing literature focusing on human-digital technology relationships, data can be affective, encouraging changes that are disciplining and even sometimes rigid. This can be welcome, however. Those who track food may appreciate planning meals and learning how to better balance what they consume. This can be especially appreciated after concerns flare, such as those associated with wanting to become slimmer. To make different food choices which are supported by tracking may further be favourable relative to alternate dieting strategies which might be considered a hinderance for some. Individuals tracking activity, meanwhile, can also make changes which are welcome given new interests emerging. Additionally, interacting with data can, contingent on the person and other relations assembling, open up new opportunities including having fun or building social relationships. Such changes can represent unintentional consequences of tracking. For some, emerging from a self-tracking assemblage can also steer the direction of wellbeing (and life) in ways that are further enlivening and which enable the re/ignition of previously unrealised or constrained interests and passions.

9.3 “GOAL!” – THEORETICAL CONTRIBUTIONS

This section now summarises the main theoretical contributions, based upon insights from the literature review and findings. Notably, the theoretical contributions are all interconnected.

9.3.1 Becoming-Well: Well-being as relational, synergistic, and in flux

This study contributes to a more nuanced understanding of well-being. The introductory chapter and literature review acknowledge that well-being is a highly contestable and complex concept (Dodge, et al., 2012). It is indeed “nebulous”, as

Patterson, Kozinets and Ashman (2019) recognise (ibid, p.230). Despite this, coverage of well-being is often oriented towards well-being as something manageable through predominantly individualistic endeavours. Insights regarding ways well-being emerges and how it is experienced throughout everyday life are limited. This is evident within existing well-being literature and literature associated with CCT. A revitalised theorisation of well-being, as offered in this research, is therefore significant. Through this, and in conjunction with the presentation of findings offered (which are not prescriptive nor definitive but can be useful for thinking further about well-being), this research takes a distinctively different track than existing literature that tends to focus more on well-being as ideological or as mediated between human connections. Moreover, this research advances and extends the growing body of CCT research that focuses on the agency of both human and non-human components.

In response to research question 7, the theorisation of well-being as relational, synergistic, and in flux, in conjunction with the framework presented in the preceding chapter, reinforces an understanding that well-being is not straightforward. It is rather a collaborative and constantly ongoing process (McLeod, 2017). It further suggests that 'Becoming-well' – a term employed elsewhere (e.g., see Duff, 2014, 2016) but infrequently used - may be more appropriate for encapsulating what can be significant to ways well-being is transformed.

How well-being advances, or otherwise, is contingent upon ways individuals de-territorialise from an assemblage and re-territorialise (Deleuze and Guattari, 1987). Data presented throughout the findings chapters demonstrates that the assemblages from which individuals emerge are unique. Based on insights regarding self-tracking which address research questions focusing on interactions and ways well-being emerges, it is articulated that important to well-being is investing and attuning. This, in turn, depends on the capacities of individuals as well other components. Well-being is also contingent upon how components work and interact together once attuned. Moreover, the past is intertwined with the present and the future as previous experiences can remain affective and influence whether new changes generated are perceived favourably or less so. This suggests the scope for thinking differently about whether resisting particular forces, considerably pushing limits or enabling lines of flight are always most ideal, as some wider literature advocates (e.g., Duff, 2014; Fox, 2011). Just as the appeal of self-tracking is not clear cut (relevant insights, of which, build on existing self-tracking literature), neither is well-being.

Insights offered regarding ways well-being emerges as individuals continue to participate in self-tracking assemblages or break away from them further resonate with the work of others including Arnould and Thompson's (2015, 2018) calls to consider particular actions and practices which become normalised or concealed as power relations manifest.

9.3.2 What a self-tracking body can do: the significance of technological objects for contributing to well-being

This research delivers a novel take on ways well-being emerges from self-tracking by focusing on what a self-tracker can do as a result of interacting with devices, apps, and data. Extensive insights are given regarding ways well-being is experienced upon investing, attuning, and interacting with self-tracking objects in more limited or elaborate ways. The discussion chapter depicts the capacities of data (e.g., as a source of motivation and so forth) that can be actualised in given events. It gives examples of capacities emerging for a self-tracking individual. This, in turn, reinforces various insights evident within a growing body of literature focusing on self-tracking. Albeit, more explicit connections with well-being are formed. Also elaborated on more are the implications of new changes generated in light of how one has been affected. To link with a key point in section 9.3.1, the research signals how becoming organised by data and enhancing well-being (in ways more disciplining) can be ideal, and comparable with what others (e.g., Bogard, 2009; Leith, 2016) argue, this can open the door to further positive encounters.

Focusing on new capacities resulting from a self-tracking assemblage contributes relevant insights to CCT. More generally, insights from the research shed light on notions that (technological) objects can be pervasive and mediate considerable changes (see Bogerson, 2013; Cochoy et al., 2017, 2020). They are not necessarily just "miniature, friendly" and private extensions of the self (Belk, 2013; Cochoy et al, 2020). This research builds upon literature (some of which is notably conceptual) directing attention to human-digital technology assemblages in particular. As is apparent throughout the discussion chapter, several points are linked with ideas evident in Hoffman and Novak's (2018) work. The research offers insights regarding ways well-being emerges for individuals who are at first self-restricting, for instance. Moreover, the research offers insights regarding the territorialisation of a self-tracking

assemblage when favourable capacities are expanded. The research also illustrates that ways well-being emerges can be implicated by whether an assemblage becomes stagnant or de-territorialised from upon experiencing constraints. These are but a few examples. The research further contributes insights that are relevant to arguments that technologies are unavoidable or inescapable (see Mick and Fournier, 1998; Humayun and Belk, 2020), by demonstrating that what can be done is shaped by whether participation in a self-tracking assemblage continues or not.

9.3.3 A greater understanding of paradoxical relationships between human and non-human

By focusing on individuals' interactions with self-tracking technology and experiences of well-being in light of research questions 4, 5 and 6, the research also offers insights which interrogate and further advance our understanding of paradoxes of technology (Mick and Fournier, 1998). This is valuable given questions have been raised regarding paradoxes (see section 8.3.3.1). Academic coverage of paradoxes associated with self-tracking is also sparse. Scholars including Zolfagharian and Yazdanparast (2017) suggest that making links between paradoxes of technology and well-being is an opportune area for theoretical contribution.

The research provides specific examples of paradoxes that can emerge (see Table 8.1). Some of these (e.g., fulfilling/creating needs; engaging/disengaging; control/chaos) are comparable with those Mick and Fournier (1998) identify. An additional paradox (empowering/disempowering) is acknowledged. Given insights from the study, the research also offers debate. It suggests a key paradox which Mick and Fournier (1998) identify – that of freedom/enslavement - can be framed differently. It further acknowledges that some paradoxes (e.g., control/chaos) found to be frequent in the work of Mick and Fournier (1998) only emerge *sometimes* in the context of self-tracking. The research further acknowledges attentive responses to paradoxes and conveys that responses to paradoxes are contingent upon the person, their history, and so forth. Like paradoxes themselves, some attentive responses resonate with those Mick and Fournier (1998) propose. Others, however (e.g., attuning, imagining), are less considered in the existing literature and are brought closer into the spotlight here. This study opens up debate further by suggesting that some attentive responses to paradoxes – such as partnering – are not entirely

sufficient for capturing the potential strength of connection between an individual and self-tracking object.

9.4 METHODOLOGICAL CONTRIBUTIONS

This research has comprised some reasonably innovative methods resulting in valuable theoretical and methodological insights.

9.4.1 Insights relevant to diary methods

The research employed diaries which enabled several insights. This includes insights regarding varying interactions with self-tracking objects over time and the multiple well-being changes generated (including less favourable or mixed). This differs from other existing self-tracking literature whereby the use of diaries or other methods allowing for insights to be generated at different temporal points is scarce. By employing diaries, this research gives leverage to (rare) propositions put forward in marketing literature regarding the value of diaries. Patterson (2005, p.153), for example, posits:

“One could also speculate that diaries could usefully be employed to gain insights into the process, relationship, setting, product, and consumer of other frequent-usage complex technological devices...Basically, anywhere qualitative research has already proven useful, QDR (Qualitative Diary Research) could also have potential.”

Several insights from this research are testimony to the potential that diaries can have. It is recognised here, however, that diaries have wider implications. This includes their potential to influence participants in new ways as they become increasingly reflexive.

By offering a range of diary formats for participants to choose from, including a diary app, additional insights have also been offered regarding technical issues, advantages and drawbacks. This is interesting as the use of diary apps in qualitative research is lagging and insights are sparse (Garcia, Welford and Smith, 2016). The insights provided may be useful for researchers contemplating new ways for participants to record diaries.

Notably, this research also employed an innovative analytical approach founded upon already established credible and conventional methods to analyse diary data differently. This was upon collaborating with other researchers. A further contribution made is that this research demonstrates how such an approach can be practically applied. Furthermore, this research demonstrates some of the valuable outputs that this approach can generate. This includes visual trajectories which compliment textual data and enable a greater appreciation of how different individuals track and are affected by self-tracking. This could be of interest to other consumer culture researchers interested in the study of processes and how practices or experience change over time. This is significant as consumer culture researchers are becoming increasingly sensitive to change (Giesler and Thompson, 2016).

9.5 PRACTICAL IMPLICATIONS

Practically, this research has produced insights which may be relevant to the promotion of health and well-being. These insights address the latter part of research question 7.

9.5.1 Implications for practitioners promoting health and well-being

As section 1.2.4 acknowledges, there is limited coverage within the public health domain directing attention to ways interacting with self-tracking technologies can implicate well-being. This is potentially problematic given an important concern to many is to understand better what can contribute to well-being and foster or encourage interventions (Hardoon, Hey and Brunetti, 2020). This study offers insights which suggest that in various instances, self-tracking technologies can, for many, become a useful material resource which increases a body's capacity to act in ways that are beneficial and perhaps even unanticipated. They can actively mediate well-being in favourable ways. An individual self-tracking may make more careful albeit flexible choices regarding food, for instance, which subsequently may generate feelings such as control. An individual may also engage in more physical activity, and subsequently feel better, build social relationships, and discover new passions. All of this can add appeal to dietary or physical activity practices. Tensions may arise for some, and interactions with self-tracking objects and the changes they produce can vary across everyday life, however. These insights could be useful if practitioners

were to give general members of the public more information about self-tracking. This thesis stresses the valuable potential of this, given interacting with self-tracking technologies can be enhancing.

Whilst not side-lining tensions and paradoxes that can emerge, such information could be oriented around multiple changes that can be generated upon turning to tracking to address particular interests and/or overcome struggles. Notably, some marketers do make efforts to present information regarding how individuals' lives can change from self-tracking. Fitbit (2020c) for example, offers several "real stories" from "real people" based in countries including America. There is scope, however, for a portfolio of different and relevant information to be expanded and made easily known to members of the public in the UK.

Insights which this thesis presents could potentially help to better promote practices such as increased physical activity. This is important as there are limits to the capacity for existing campaigns to promote physical activity (Phoenix and Bell, 2019). Indeed, as Phoenix and Bell (2019) also acknowledge, health institutions have suggested progress for increasing physical activity has been "slow" (World Health Organization, 2018). It is perhaps unsurprising, then, that questions such as "how can health and care professionals get everybody active every day?" (Waterall, 2018) remain pertinent. Reinforcing the favourable well-being implications evident in this research could help to go beyond existing messages. These are often restricted to focusing on preventing or managing physical ailments. For example, it could be useful to stress more new capacities that are not necessarily centred around metrics. The capacity to feel enlivened more when exploring local surroundings, to feel good when moving more, and to feel included when being active with others, for example.

Insights from this research also help to highlight different components which contribute to assemblages that frame bodies in ways perceived less favourably (e.g. becoming-bigger). Several individuals working towards becoming slimmer with self-tracking technologies did notice favourable changes and de-territorialised from particular relations. Nonetheless, the insights generated help to reinforce the need to do more to combat that which can frame bodies in ways which become less desirable. Encouraging shops to offer healthy options at checkouts, for instance. Likewise, insights from this research helped to highlight different components required for capacities such as increased movement to be afforded. Accessible spaces is one example. This research provides insights which support the need for more

interventions such as the provision of safe green spaces and safe commutable spaces, therefore.

9.6 RESEARCH LIMITATIONS AND AVENUES FOR FURTHER RESEARCH

This section acknowledges the study's limitations. Furthermore, it introduces potential areas for further study.

9.6.1 Research Limitations

This thesis provides crucially important insights. For such a significant and pervasive concept, more nuanced insights regarding well-being have been sparse, particularly within CCT literature. There also remains scope to explore further well-being in light of self-tracking. Nevertheless, this thesis does not seek or claim to provide a fully comprehensive nor necessarily generalisable understanding of well-being or relationships between well-being and self-tracking. This thesis provides but one window of insight. Coincidentally, there are limits to the scope of this research and its findings.

To elaborate, despite efforts to gain a diverse range of participants, some parameters have emerged. Insights have not been generated with other self-trackers such as older consumers aged 70+, for instance. This is more than likely a result of online recruitment efforts being most effective during this study. Since 2011 adults aged 65+ and 75+ have consistently comprised a greater proportion of those *not* using the internet (ONS, 2019). Consequently, potential alternate insights from older aged adults recognised to self-track (Statista Research Department, 2016) and who are considered a target to explore further (Seifert et al., 2017) are overshadowed. The primary data was also generated at a particular time (2017-18). Since then, more streamlined devices have come to market and some apps encompass new features. The app associated with *Fitbit*, for example, now offers a community feature. Individuals can join groups, upload social posts or photos and converse with others. If upgrading to a newly introduced premium membership, self-trackers can visualise more detailed data, access guided activity or sleep programmes, or 'earn' bonus active minutes in new games such as 'Get fit bingo' where particular activities are encouraged (Fitbit, 2020d). Insights relevant to this are not provided. Insights from this study arguably remain pertinent generally, however. This is because many new

devices and their associated apps afford many features acknowledged throughout the study.

Furthermore, whilst methods employed including interviews and diaries provided valuable insights, not all participants within the study committed to keeping a diary. There are limits, then, to data generated which supports or offers something alternative to that of all interview data. Nevertheless, the inclusion of a diary methods approach helps to broaden our understanding of the topic. Several valuable insights regarding self-tracking and well-being over time have been uncovered. This includes what happens when different everyday components assemble.

9.6.2 Stepping in another direction

This section proposes several directions for future research for contributing novel insights which can enhance our understanding of self-tracking and/or our understanding of well-being as relational, synergistic, and in flux (as depicted by Figure 8.5). The directions proposed here reflect opportunities arising from the limitations of the existing research or opportunities arising from findings generated.

9.6.2.1 The emergence of well-being for other self-trackers

In light of parameters regarding participants recruited, future studies could employ purposeful recruitment strategies aimed at other individuals who self-track. Retired individuals, for example, are recognised to self-track (Seifert et al., 2017). Recruitment methods such as the circulation of flyers, which have been successful in other studies for obtaining insights from people aged 70+ who track physical activity (e.g., McMahon et al., 2016), could be employed. Directing further attention to what influences individuals to self-track, how connections with self-tracking technology are established, as well as new affective capacities emerging is important for generating insights which can support or extend those already acknowledged within this research.

9.6.2.2 Exclusion

Many self-trackers contributing to this research are employed, self-employed, or studying. Also notable is that whilst some participants were gifted their self-tracking devices, several participants were conscious of how much to spend on a particular

device. Some also worked overtime to earn an income enabling them to invest in self-tracking devices, whilst others obtained a device through a workplace scheme. In many cases, work and income were pivotal factors enabling participation. This suggests that territorialising frameworks of social class, along with greater affluence (Goldthorpe and Lockwood, 1963), cannot be disentangled from self-tracking, and self-tracking is currently a privileged practice (Esmonde and Jette, 2018), contingent upon the economic circumstances of an individual when gift relations are not encountered. Given this, there remain knowledge gaps pertaining to the well-being of relatively disadvantaged individuals. Though not exclusive, this can include poverty-stricken individuals such as the unemployed, the working poor with financial difficulties, and consumers with decreased social and cultural capital (Hamilton et al., 2014).

The well-being of such individuals deserves attentions since their inability to participate in socially relevant practices (Bauman, 2005), or consume objects provoking desire or which enable a normal lifestyle (Hamilton, 2009) can exacerbate stress and dissatisfaction and constrain remedies for boredom (Bauman, 2005). Physical health problems also can arise due to poorer relationships with food, fewer housing choices, and so forth (ibid.). Yet, consuming particular objects can arguably facilitate well-being (Hamilton et al., 2014). Indeed, insights from this research suggest this. There is thus novel scope to investigate whether and how favourable well-being capacities can emerge for marginalised individuals who encounter different relations in everyday life (e.g., food; safe, social spaces; time to exercise) and can assemble with self-tracking objects. Access could arise from circumstances such as sacrificing assets (Yurdakul et al., 2017) or in light of relations with other people. There is also scope to explore whether findings regarding experiences of well-being for those with ready access to self-tracking technology are similar to those with limited access.

Moving beyond a typical preoccupation with advantaged consumers and consequently being less short-sighted (Hamilton, 2009), can generate deeper insights regarding (digital technology) consumption and inequalities. Lines for conceptualising Bottom of the Pyramid (BOP) consumers can also be interrogated further, since available definitions of BOP consumers associated with economic and utilitarian needs are arguably limited (Yurdakul et al., 2017). Sociocultural assemblages from which individuals emerge and which implicate well-being can be relevant. Better understanding self-tracking and well-being for marginalised

consumers can further enable insights associated with desirable conditions for enhancing physical health, and well-being. This is significant in light of trends linked to the consumption of health services by marginalised groups (Cookson et al., 2016) and policymakers and service providers seeking to tackle inequalities.

9.6.2.3 *The significance of gender*

Another rich area for further enquiry is the issue of gender. An explicit in-depth exploration of gender was beyond the parameters of the research objectives central to this research. Nevertheless, it is clear from several research findings that gender is entangled with self-tracking (Esmonde and Jette, 2018), and would benefit from further interrogation and reflection.

Findings illustrate that in terms of gendered interest, it is often women who become attracted to, and invest in, self-tracking technologies. Several women engage with dominant feminine ideals, even if not conforming wholly to an ideal image (Coffey, 2013). In turn, this contributes to their bodily experiences as they may turn to self-tracking in an effort to feel better and to pursue new capacities such as fitting into desirable clothes. This is evident from women post-pregnancy and women who seek changes after becoming attentive to poorer relations with food or limits to physical activity. These limits can be related to preoccupations with work or parental duties. Findings further illustrate that for some women, an interest in self-tracking cannot be disentangled from a concern about an aging body and ones' capacity to do activities including shopping or spending time with family. To self-track can, therefore, result in women committing to their concerns for beauty, health, and family, through increasing bodily discipline. Regarding capacities generated, it is evident that for several women, discipline through self-tracking becomes enjoyable and empowering, which in turn contributes to ongoing intimate relations with data. For some, the quantification of everyday life also helps to manage own leisurely time more productively around gendered responsibilities such as housework or childcare. It is thus clear that for many women, gendered ideals are continually produced through relations established.

Consequently, concentrating more in-depth on ways that gendered norms are perpetuated, and continually becoming, as a result of interacting with self-tracking technologies and behaving in increasingly regulating ways, is advocated here to be particularly opportune for building on relatively scant insights regarding gender within

self-tracking literature. This is further opportune for contributing interesting insights to consumer research, whereby gender is recognised to be a compelling research topic (Bettany et al., 2010).

9.6.2.4 Further opportunities for exploring well-being and self-tracking

The potential for tensions to emerge from self-tracking could also be explored further, particularly given the interest of consumer culture researchers in probing more the impact of digital consumption devices (Cochoy et al., 2020). It is plausible that consumers affected by self-tracking in more restricting and constraining ways may be less likely to participate in a study. Particular comments (see section 7.3.4) suggest this. Gaining insights from those willing to share their experiences could, however, broaden our understanding of ways well-being is shaped by self-tracking.

Some findings also suggest that self-trackers are likely to converse about data with others (e.g., partner) or make decisions including taking longer walks which involve others (e.g., partner, children). Another avenue for further research, therefore, could be to explore ways self-tracking can be affective and generate new capacities for individuals who are not themselves directly self-tracking. This could include family members, friends, or colleagues. This could further shed light on whether and how others become well in light of self-tracking.

At the time of writing, individuals across the globe including in the UK are also emerging from another national lockdown as a result of COVID-19. In the UK, COVID-19 has resulted in individuals spending a considerable amount of time socially distancing and staying indoors at home. Capacities for socialising have become constrained and capacities to do exercise workouts have been impacted. There is a novel and timely opportunity, therefore, to explore whether and, how, becoming catapulted into a situation whereby one is forced to adapt to new routines has implications for the ways self-tracking technologies are interacted with and ways self-tracking contributes to experiences of well-being. This could be useful for generating new detailed insights regarding disruptive forces and for enabling comparisons with insights presented in this thesis. Suggestions for research could include investigating further whether and how tracking physical activity encourages individuals to retain some sense of normality and structure within the day. Attention could also be given to whether consulting step data or participating in challenges helps facilitate favourable feelings such as a sense of achievement irrespective of how much

physical activity is done. Attention could also be given to whether this contributes to less favourable feelings if exercise is constrained. Researchers could further explore whether engaging with challenges or engaging in conversations with like-minded others contribute to an enhanced sense of social connection during a time of unprecedented change whereby connections with others have been fundamentally challenged.

9.6.2.5 Applying theory to alternative contexts

One way of evaluating the usefulness of a theory is to consider its applicability for enhancing understanding in a new context (Belk and Sobh, 2018). It is envisaged that ways well-being is advocated within this thesis could be thought about and teased out further in other contexts to interrogate and advance our understandings of well-being. This could perhaps be in contexts whereby individuals undergo particularly challenging transitions. Transitions can include adopting other healthy consumption habits, for instance (Appau, Ozanne and Klein, 2020).

Though not exclusive nor exhaustive, introduced here are some further suggestions for taking forward our understanding of well-being. This might be relevant to different literature bases. Considerations of well-being are budding in entrepreneurial literature, for instance (Wiklund et al., 2019). Yet, there is scope to develop understandings of well-being further regarding entrepreneurial journeys (ibid.). At present, well-being is associated with psychological resources entrepreneurs are determined to have or with individuals having the freedom and control to do personally meaningful and purposeful work. Alternatively, as is further acknowledged by Wiklund et al., (2019), well-being is depicted as static and is focused on particular consequences of self-employment. Deserving of attention are explorations of well-being across various phases of developing, starting, growing, and running a venture.

Exploring key tenets associated with the framework depicted in Figure 8.2 could perhaps offer an alternative starting point for exploring well-being here. The process of becoming-well could be explored in light of what affects individuals and leads to starting a venture; ways of becoming attuned with stakeholders; new capacities emerging from the venture including those that drive actions such as adopting more creative strategies; disruptive and volatile forces; and a consideration of how changes generated compare with before the venture, for example. It is envisaged that this

could not only add to a growing body of entrepreneurial literature directly addressing well-being but also could add to literature (e.g., Ashman, Patterson, and Brown (2018) drawing attention towards entrepreneurial journeys from a less agentic stance whereby assumptions that entrepreneurship is predominantly self-directed are questioned.

Other potentially fruitful contexts include those which are service-oriented, given it is argued that there are ample opportunities to contribute to studies of well-being in service industries (Uysal, Sirgy and Kim, 2020). Services industries comprising the beauty industry (e.g., hair salons and spas) are just some examples whereby studies associated with well-being are encouraged (see Klaus and Tsiotsou, 2019). Moreover, questions associated with well-being in settings including that of academics joining structured communal writing retreats (Eardley, Banister and Fletcher, 2020) are being raised. There is arguably potential to explore well-being further from the view that well-being is relational, synergistic, and in flux, in any setting like this.

9.7 “HOW DID IT GO?” SUMMARY AND CLOSING THOUGHTS

This thesis is positioned amongst growing research in CCT focusing on the agency between human and non-human. The research is positioned amongst literature drawing upon assemblage thinking including literature focusing on human-digital technology assemblages. The research explored well-being in light of self-tracking and gave details about individuals' prior experiences, how objects and data are collaborated with, and new capacities produced from self-tracking which impact well-being. Resonating with other literature adopting a fresh well-being perspective, the research put forward a framework for better understanding well-being (in light of self-tracking) and suggested well-being can be better understood as a process of 'Becoming-Well'. The research made further contributions such as that of contributing new insights regarding paradoxes.

As I write this, I cannot help but think of a prompt I am met with when I record activities on my relatively new Garmin device. That is, “how did it go?”. I believe it is important to contemplate such a question in light of my PhD journey. After all, undertaking a PhD and focusing on a single topic for a considerable amount of time is but one of the most important activities I have partaken so far in my life. It has been challenging. For me, the writing up and channelling of insights from mind to word document

particularly so. The process has generally sparked my feelings to fluctuate – from enjoyment one moment to frustration the next, to enjoyment once again. I have become immersed with the project in various ways, and in doing so, this has enabled me to become aware of, and engage critically with, different theoretical perspectives and engage with others and try new methodological approaches.

The study has also transformed the way I think about, and practice, self-tracking. I have been struck by the multitude of well-being changes self-tracking can afford. Attention to data indicating favourable ways well-being can be enhanced is what has partially contributed to me recently re-starting self-tracking again and being recaptured by a self-tracking assemblage. Albeit, the way I have become attuned with my new device and interact with it differs given prior relations remain affective. Indeed, I initially took a break from tracking after reflecting and realising that participating in a self-tracking assemblage was not always enhancing. Though some favourable changes were generated on occasion, I also became attentive to tensions which other participants also have encountered at times (e.g., becoming compelled to move more, feeling bad when consulting low step count data).

As well as contributing to theory, I envisage that the insights from this work will remain with me. As is cited in Markula (2019), Deleuze (2007, p. 180) states “the question facing every writer is whether or not people have some use, however small, to make of the book, in their own work, in their life, and their projects”. I do wonder how I will think about what I have learnt from this research in the future and whether insights from this work will differ or be perhaps reinforced. As I become affected by new assemblages emerging in everyday life, how might my interactions with self-tracking objects change for instance, and in what ways will self-tracking have the capacity to affect? Perhaps this is an opportunity for yet another study. Though a line is drawn here, this does not have to be, nor is it, the end.

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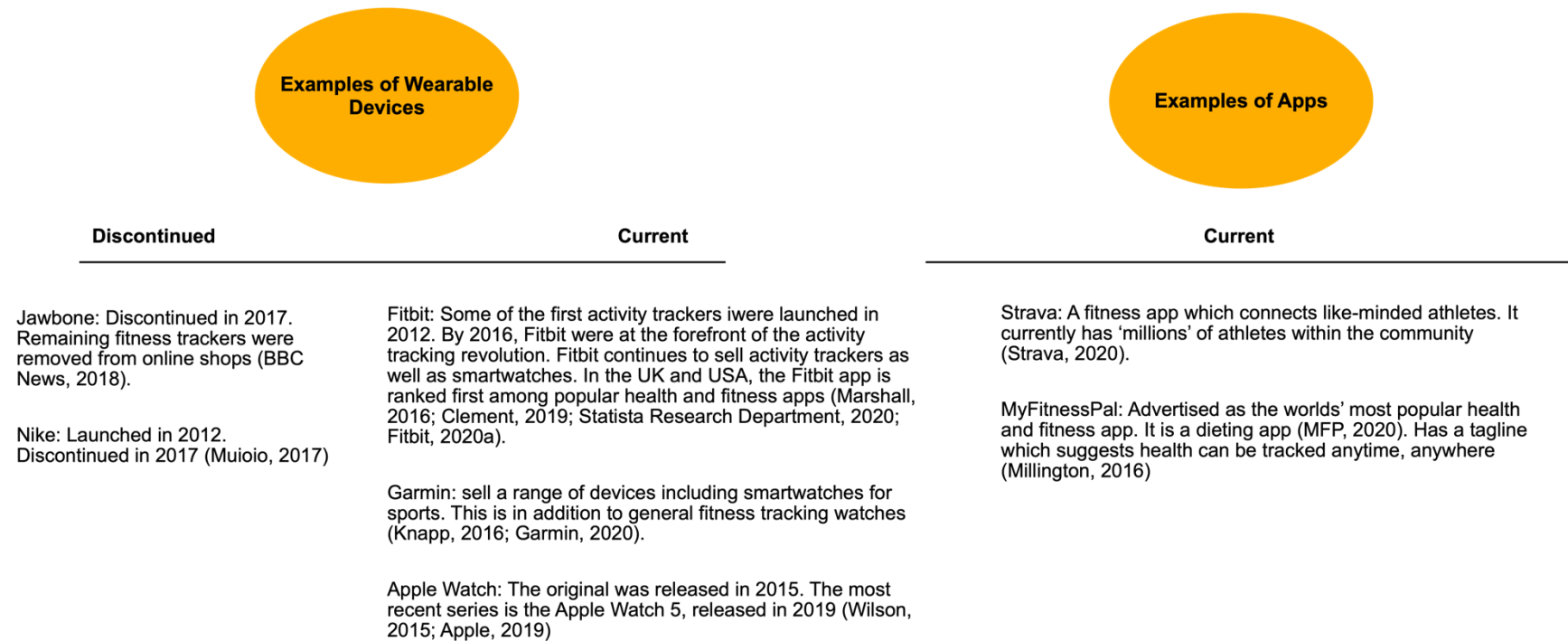
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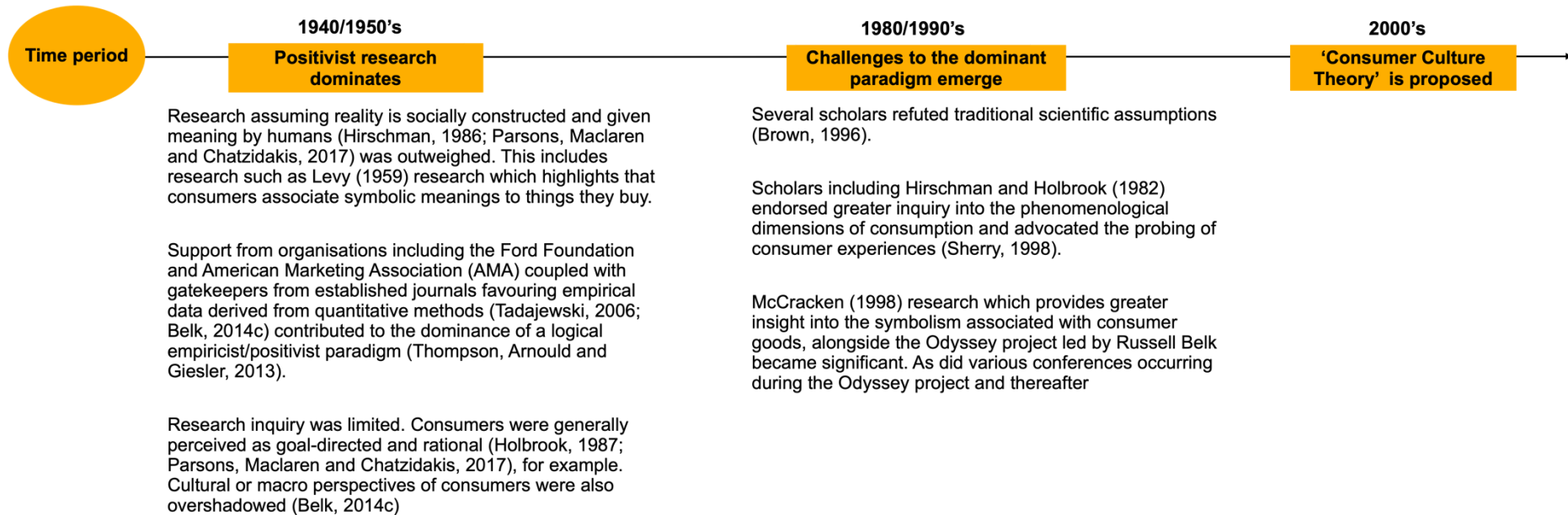
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APPENDICES

APPENDIX A – Details regarding self-tracking technologies



APPENDIX B – Background information regarding CCT



APPENDIX C – Examples of marketing research employing diaries

Reference	Purpose/Benefit of employing diaries
Patterson, 2005; Baron, Patterson, and Harris, (2006)	Capture otherwise concealed details regarding the role of text messaging in consumers' lives
Epp, Schau, and Price, (2014)	Better understand how family practices transform in ways that cannot be directly observed
Burton and Nesbit (2015)	Better understand subtle influences leading people to smoke
Kerrigan, et al (2014)	Explore the use of music during running
Zarantonello and Luornala, 2015)	Explore chocolate consumption
Hartmann (2016)	Better understand gardening practices
Marchant and O'Donohoe (2019)	Better understand routine, mundane interactions between individual and smartphone

APPENDIX D – Study advertisement posted online

Individuals' experiences using apps and/or wearable devices for health and wellbeing

Are you 18+? Do you use health/fitness apps and/or wearable devices for maintaining or managing your health and wellbeing?

Volunteers are sought to participate in a study regarding their experiences using particular technologies and the impact of these on their health interests and wellbeing.

Volunteers will be interviewed (for approx. 1 hour) and also be given the option to reflect on their experiences through a personalised and preferred diary format.

All data will be anonymised and kept confidential. You can withdraw from the study at any time.

For more information or to take part in the study, please contact Rachel Spence
R.Spence@liverpool.ac.uk

Rachel Spence

PhD Researcher, University of Liverpool Management School

APPENDIX E – Consent Form

Committee on Research Ethics

PARTICIPANT CONSENT FORM

Title of research project: Exploring the lived experiences of individuals using technologies for health and wellbeing

Researcher(s): Rachel Spence

**Please
initial
box**

1. I confirm that I have read and have understood the information sheet dated 10th October 2016 for the above study. I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my rights being affected. In addition, should I not wish to answer any particular question or questions, I am free to decline.
3. I understand that, under the Data Protection Act, I can at any time ask for access to the information I provide and I can also request the destruction of that information if I wish.
4. I understand that confidentiality and anonymity will be maintained and it will not be possible to identify me in any publications
5. I understand and agree that my participation will be audio recorded and I am aware of and consent to your use of these recordings for use in writing up and publishing the study findings
6. I agree for the data collected from me to be used in relevant future research.
7. I understand that my responses will be kept strictly confidential. I give permission for members of the research team to have access to my anonymised responses. I understand that my name will not be linked with the research materials, and I will not be identified or identifiable in the report or reports that result from the research
8. I understand and agree that once I submit my data it will become anonymised and I will therefore no longer be able to withdraw my data.
9. I agree to take part in the study

_____ Participant Name	_____ Date	_____ Signature
_____ Name of Person taking consent	_____ Date	_____ Signature
_____ Researcher	_____ Date	_____ Signature

Principal Investigator:

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Work Address: ULMS, Chatham Street, Liverpool, L69 7ZH

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APPENDIX F – Initial Interview Guide

Initial Interview guide

Thank the participant for their time

Introduce self and reiterate the objectives and purpose of the study.

Thank participants for their time.

Reiterate ethical concerns (e.g. re confidentiality and anonymity)

Explain what the interview involves

Today I will talk to you about your thoughts, feelings, and experiences regarding the use of your self-tracking technology. The interview will last approximately 1 hour. I would like to record the interview for transcription purposes. Is this OK? *Gain verbal consent.*

Interest in self-tracking

- What motivated you to start using particular self-tracking technologies?
- Can you tell me what is important about the technology for accomplishing particular interests?
- How did you think the technology would help address particular interests?

Interactions

- How long have you been using particular self-tracking technologies?
- What features of self-tracking technology do you engage with? (Prompt: why, how, how often).
- Has your engagement with self-tracking technology changed over time? How and why?

Experiences with self-tracking technology, and thoughts and reactions towards self-tracking technology

- Can you tell me about your positive experiences with the technology?
- Can you tell me about your negative experiences with the technology?

(Relevant prompts: e.g., can you tell me about how interacting with particular data makes you feel? How do you respond?)

- Can you tell me about any particular memorable experience you have had with the technology? (Prompts: a positive experience, a less positive experience)
- Could you show me any of the features of your technology or could you show me any data that evokes particular thoughts or feelings?

Transformations

- How do you think the technologies have impacted your well-being? *(Consider how do participants make sense of what well-being is for them?)*
- Can you think of what ways has your life changed since self-tracking?
- Do you envisage continuing self-tracking?

Closing questions

- Do you have anything else that you would like to add?

APPENDIX G – Key Points from the Diary Brief

Key Point	Explanation
Why a diary?	Gaining rich detail regarding the use and impact of apps and/or wearable devices in everyday life will be beneficial for understanding better the ways they can help enhance wellbeing, or hinder wellbeing. A diary is a fairly novel way of allowing individuals to reflect upon and record their experiences and in particular their feelings and behaviour, close to the time of their experiences. This can be particularly beneficial for individuals trying to track, or make sense of, particular activities over time and how their technology or data affects them.
Using a diary	<p>There will be several questions to guide reflections.</p> <p>You are encouraged to reflect on your experiences for 28 days.</p> <p>Reminder prompts will be sent to you - condition to prior agreed preferred contact method and frequency of prompts.</p> <p>There is flexibility regarding diary formats available to choose from (E.G: pen and paper, email entries, personal voice recordings or voice notes from a device, or recordings on a purposefully built android app).</p> <p>There is no word limit. Simply write as much as you feel like, though being as detailed as possible for each question is encouraged. Recording the date and time of reflection is also encouraged. Visuals including any photos/screen captures that you feel are relevant (e.g., data evoking particular feeling/action), alongside an optional caption/note, can also be sent, if you wish, to compliment a diary entry.</p>
Data confidentiality	All entries are private and confidential, and data will be anonymised.
Researcher contact	Whilst regular contact from the researcher will be maintained throughout, do feel free to get in touch at any time if you have any queries whilst completing the diaries (email address provided).
Diary formats	<p><i>Pen and paper:</i> A paper booklet with 7 days of entries each will be given. Paper entries can be scanned and e-mailed to the researcher or given to the researcher personally.</p> <p><i>E-mail entries:</i> Questions will be emailed. Entries can be typed (such as on a word document) then e-mailed to the researcher.</p>

Personal voice recordings: Voice recordings can be done via voice memos or other recording features on a phone/tablet/computer/any other audio enabling device. Voice recordings can be e-mailed to the researcher.

The recording the date and time of reflection at the start of the recording is encouraged.

App (Android Only): This purposefully designed app allows you to send written, audio, and visual entries via your Gmail client (prompted from the app) all in one go. If you have an android device, you will have the option to install the application if you wish.

All question prompts will be visible on the main screen of the application. Once each question prompt is clicked, a new page with the option to type a reflection (unlimited word count) and/or record audio will appear. After saving any audio recordings and after writing any entries, a check will appear next to the question answered on the main question screen. After answering the question prompts, written and audio recordings for each question can then be sent to the researcher via email. To avoid loss of data, please email diary entries before closing the application. Please note that sending entries over a w-ifi connection will prevent using mobile data and thus will help to minimize any data costs that may otherwise incur.

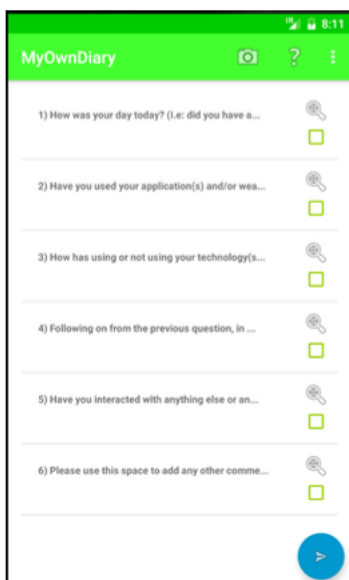
The application can be uninstalled at any time.

APPENDIX H – App Tutorial Guide

ANDROID APP TUTORIAL



This is the terms and conditions page. This will be visible once clicking 'continue' on the welcome page, which you are greeted with (one time only). The terms and conditions page will also only appear once upon first opening of the application. To continue using the diary, the tick box indicating acceptance of the terms and conditions should be selected before pressing continue. You will then be taken to the main questions page. If you click cancel, the application will close.



The camera icon (top right) allows you to upload a picture (from camera on phone or photo storage) and add a caption.

The question mark (top right) provides a note in case help is needed. The dots (top right) give you the option to uninstall the app, as well as set a daily reminder.

This page also includes the main questions. Click on a question to see it in full and to record your answer via audio and/or text.

Note that depending on your screen size, you may need to use a scroll bar (this would appear on the right side) to see all questions.

The blue icon (bottom right) is the submit button.

ANSWERING QUESTIONS



Here is an example of what the screen looks like once a question is clicked. Simply click the microphone to record voice or click in the 'answer here' section to input text. The text box allows for unlimited text. The arrow back can then be clicked to go back to the main screen, where the checkbox for that question will then be green, indicating completion. (Sometimes the main back button on the phone needs to be touched first before the back button on the app, if the text box has a certain amount of text in).

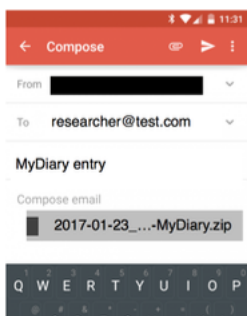
You can return to a question and edit the text if you wish, simply by clicking the question again.

Submit Answers

Do you wish to save your 6/6 answered questions on your device, and open your Gmail client with the answers attached, enabling you to submit your answers to the researcher? (It is advisable to be connected to wi-fi due to file size)

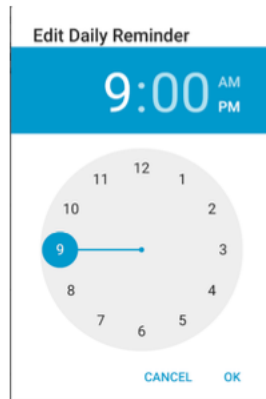
To submit your answers, press the blue bottom, which is on the left of the main screen. You will be greeted with this message. Click ok to continue with your submission after you are happy with your answers for the select number of questions

CANCEL OK



After clicking OK, your email (Gmail) client will open with the answers automatically included as a zip file. You can add additional text if you wish into the email before sending. The email will be sent to the researchers' address which is set as default to the researchers' university email, once you hit the send button.

OTHER FEATURES



This is the edit daily reminder page. Touch and move the dial to the preferred time (currently 9PM on the image provided).

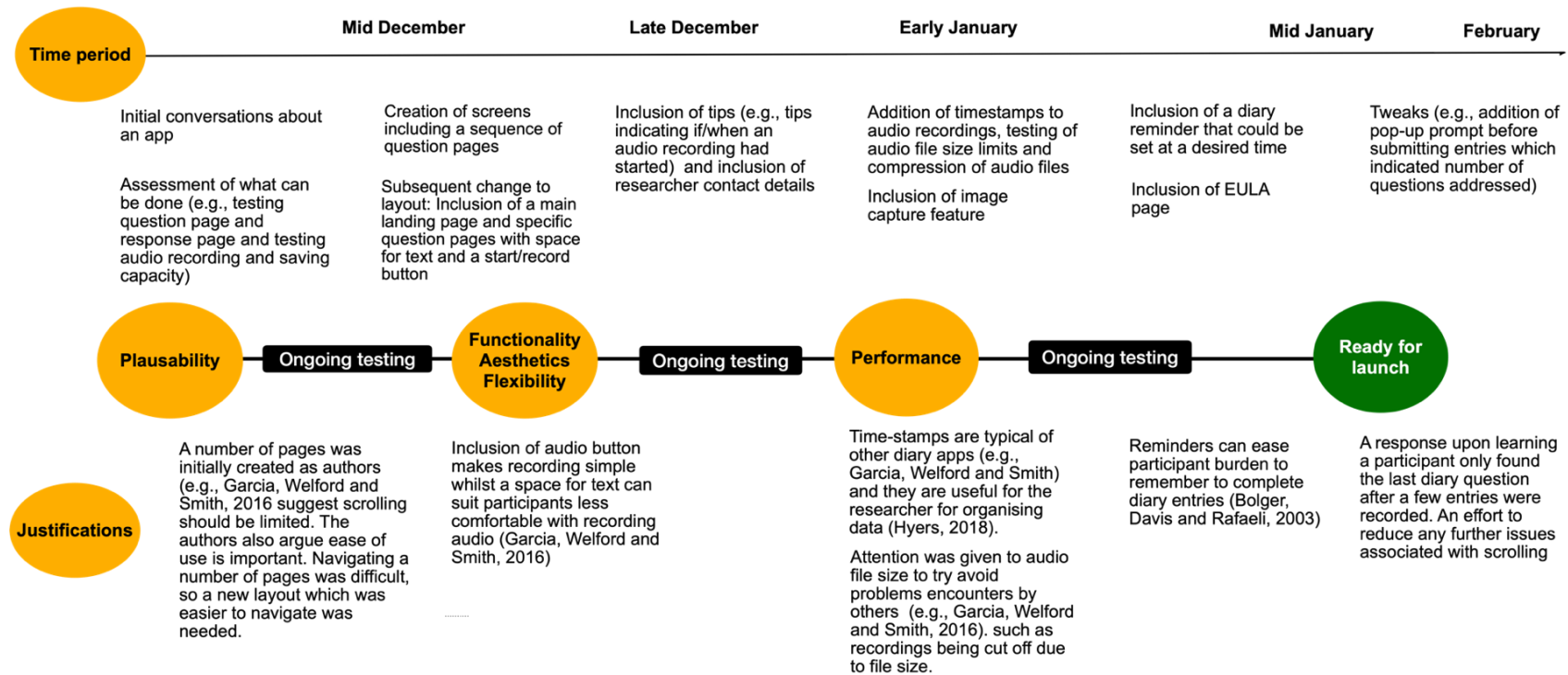


This is the page that appears if you wish to take or upload a picture. Simply press the relevant button to take/upload your photo.



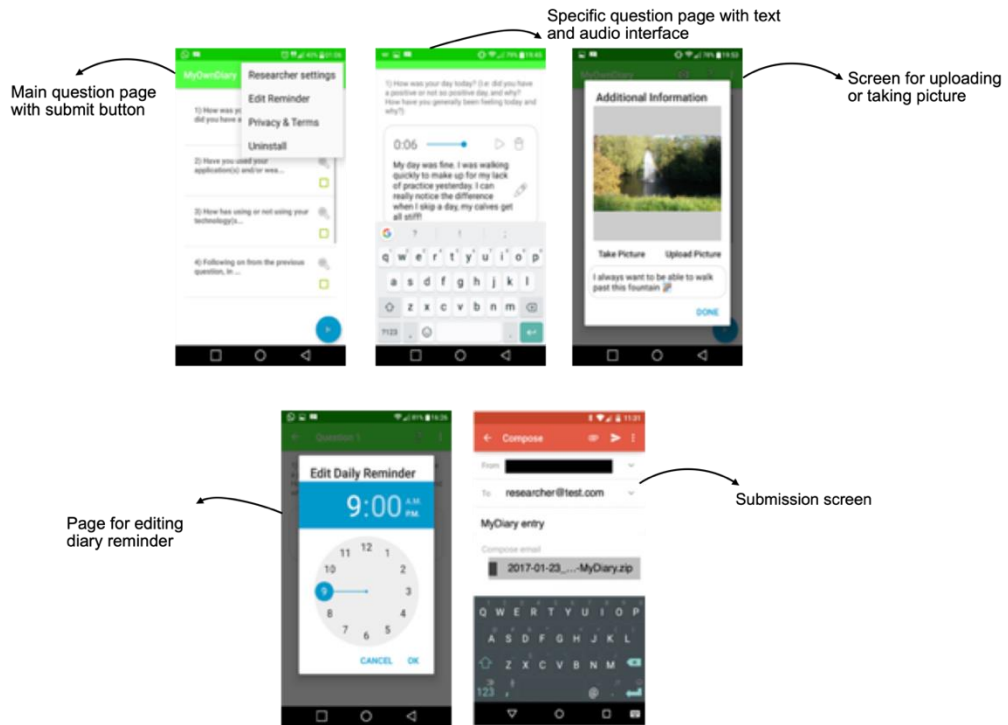
You can click the caption box, which will then allow you to add additional text. To go back afterwards, use the arrow button on your android phone and then the back button on the app.

APPENDIX I – Timeline of App Development



The app was constantly tested on an Emulator as well as on real phones to check appearance, test functionality and navigation. Testing is important for managing the reliability of an app (Garcia, Welford and Smith 2016).

APPENDIX J – Visual Examples of Diary App



APPENDIX K – Diary Questions

ORIGINAL DIARY QUESTIONS

- 1) Please describe the main things you have done today
- 2) Tell me about your use of particular technology(s) today (i.e., if you used your technology, how have you interacted with specific features? when did you use the technology(s) and what was happening at the time(s)? why did you interact with particular features? if you did not use your technology, why not?)
- 3) How have interactions with your technology and its particular features affected your feelings and thoughts today? (i.e., tell me specifically about any positive, negative, or unanticipated feelings and thoughts that you have had before using the technology; when using the technology; afterwards)
- 4) With regards to how you felt whilst using the technology and afterwards, in what ways did this impact your actions? why? (i.e., please be specific about how this impacted your motivation and/or engagement to do or not do something to feel a certain way and/or satisfy needs/wants/urges)
- 5) Have you interacted with any other thing or person(s) other than the aforementioned technologies to serve your motivations? why?
- 6) What was the most meaningful experience you had with your technology today and why?

Any additional thoughts?



REVISED DIARY QUESTIONS

- 1) How was your day today? (i.e., did you have a positive or not so positive day, and why? How have you generally been feeling today and why?)
- 2) How has your day impacted your use of technology(s)? (i.e., why did you interact with specific application(s) and/or wearable device(s) more or less than other days? For example as a result of: what you did or did not do during the day; how you were feeling; anything you saw)
- 3) If you used your application(s) and/or wearable device(s) today, how have you interacted with specific features and how often? Why did you interact with these features?
- 4) How has using the features of your application(s) and/or wearable device(s) impacted your feelings and thoughts today? (i.e., tell me about any positive, not so positive, and unanticipated feelings or thoughts you had during, and after, each interaction with your technology(s) and why; and whether you wish to keep interacting with features interacted with, and why/why not)
- 5) With regards to what you felt and/or thought from using the technology, in what ways did this impact your actions? Why? (i.e., please be specific about how this impacted you to do or not do something in order to feel a certain way and/or satisfy needs/wants/urges)
- 6) Have you interacted with anything else or anybody else to serve your health and wellbeing interests today? Why/why not?

Any additional thoughts?

FURTHER REVISED DIARY QUESTIONS

- 1) How was your day today? (i.e., did you have a positive or not so positive day, and why? How have you generally been feeling today and why?)
- 2) Have you used your application(s) and/or wearable device(s) today? If so, please be detailed about: what technology(s) and specific features you interacted with; when and how often; why you interacted with these features more or less than other days. If not, please be detailed about why not
- 3) How has using or not using your technology(s) impacted your feelings and thoughts today? i.e., tell me what positive, not so positive, mixed and/or unanticipated feelings or thoughts you had during, and after, interacting with features of your technology(s); any feelings and/or thoughts you had from not interacting with features of your technology(s); and why you felt and/or thought this way
- 4) With regards to what you felt and/or thought from using or not using your technology(s), in what ways did this impact you to do, or not do something, in order to feel a certain way, and/or satisfy needs/wants/urges?
- 5) Have you interacted with anything else or anybody else to serve your health and wellbeing interests today? If so, please tell me why, and how this impacted you

Please use this space to add any other comments you think may be relevant



FINAL DIARY QUESTIONS

- 1) How was your day today? (i.e., did you have a positive or not so positive day, and why? How have you generally been feeling today and why?)
- 2) Have you used your application(s) and/or wearable device(s) today? If so, please be detailed about: what technology(s) and specific features you interacted with; when and how often; why you interacted with these features more or less than other days. If not, please be detailed about why not
- 3) How has using or not using your technology(s) impacted your feelings and thoughts today? i.e., tell me what positive, not so positive, mixed and/or unanticipated feelings or thoughts you had during, and after, interacting with features of your technology(s); any feelings and/or thoughts you had from not interacting with features of your technology(s); and why you felt and/or thought this way
- 4) Following on from the previous question, in what ways did such feelings or thoughts influence your actions, in order to feel a certain way and/or satisfy needs/wants/urges?
- 5) Have you interacted with anything else or anybody else to serve your health and wellbeing interests today? If so, please tell me why, and how this impacted you

Please use this space to add any other comments you think may be relevant

APPENDIX L – A summary of suggested reflexive approaches

Power/Ontology	Type of Reflexivity	Importance of Reflexivity	How to practice Reflexivity
More researcher controlled/Singular reality	Objectivist	Demonstrate a researchers' capacity to be authoritative and make decisions regarding ways to discover truths rigorously and credibly.	Make methods and the role of those involved in method design transparent. Evaluate methods employed.
Less researcher controlled/Singular reality	Experiential	Finding the subjective voice of the researcher and including it.	Reflect on ways the researcher situates themselves socially and emotionally with the research and topic. Reflect on relationships with participants. Reflect on response to research encounters.
More researcher controlled/Multiple realities	Perspectival	Highlight different voices or perspectives comprising the research.	Recognise that different perspectives can be associated with a topic. Be sensitive to different voices. Document how theories used carry particular assumptions and alternate approaches would produce new knowledge. Reflect on own perceptions and assumptions as part of social/institutional groups and the implications for constructing knowledge.
Less researcher controlled/Multiple realities	Multiplex	Interrogate ways that the researcher and researched are constituted in different ways by the research process.	Document ways those involved with research emerge and how this impacts upon the research process.

(see Bettany and Woodruffe-Burton, 2009).