The Authoritarian Dimension in Digital Self-Tracking – Containment, Commodification, Subjugation

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Abstract

In this chapter I give an account of the first ten years of the history of digital self-tracking (2007–2017) and bring to the fore an authoritarian dimension emerging from the current phase in its development. Adding a psychoanalytically informed focus on the role of anxiety and its containment to the existing approaches, I show the history of digital self-tracking as falling into three main phases. While, in the early days of the Quantified Self movement, the containment of chronic health problems took centre stage (phase one), the commodification of self-tracking in the form of fitness trackers and smart watches (phase two) has glossed over the initial logic of containment. By the same token, this logic has been spreading to increasingly more spheres of life, colonising users' routines and practices with a general drive towards self-optimisation. Whereas fitness tracking is sold as a highly customised and personalised activity, online corporate surveillance and the selling of user data to third parties turns the self-optimisation endeavour into a decisively social one. Users know that their data travels and that it is being assessed by others, and this tacit knowledge turns self-optimisation into a moral issue: *How fit do I have to be to be fit enough?* It is at this point that private insurance companies are stepping in (phase three) with the suggestion of a trade-off: *'Since you know that your data is up for grabs anyways, why not give it to us directly? In exchange we tell you exactly what to do and how fit to be*. It is in the suggestion of this deal that I see the authoritarian dimension of digital self-tracking.

Introduction

1

Self-tracking, self-quantification, lifelogging – these are some of the most commonly used terms to capture the digitally facilitated practices with which people measure and assess themselves in their everyday lives and daily activities in order to gain heightened self-awareness and improve – ultimately: optimise – themselves by tuning their routines and habits (see Selke 2016a: 1ff; Lupton 2016). Using sensor-equipped *wearables,* such as fitness trackers and smart watches, people measure their physical activity, their sleep, their diet, their moods, their stress levels, their social, love and sex life. With the help of various devices, they are counting their steps, their heart rate, perspiration, breathing, calorie intake, glucose levels etc. (e.g. Wolf 2015). This information is counted and processed and represented back to them in playfully designed and neatly arranged graphics that lets them compare (what thus turns into) their *performances* on a regular basis and, if they wish, allows them to compare themselves with, and be compared by, others online.

Much has been written about this trend, which under the title *Quantified Self* has been taking shape since 2007, when two *Wired* authors, Gary Wolf and Kevin Kelly put that label to what they observed as emerging practices of self-observation on part of a growing number of their colleagues and friends and started promoting it as the future form of self-care (see Wolf 2009). Since then, the academic literature can be seen to have roughly fallen into two camps, with developers and designers tending to embrace the trend for its potentials – not only for self-awareness and sickness prevention at the individual and social level, but also for product development and the opening up and sounding out of new consumer markets (e.g. Swann 2012; Cena et al. 2015; Nake et al. 2016). On the other side of the divide, cultural critics have focused on the movement's potential downsides. They see the self-tracking practices as part and parcel of a general neoliberal drive towards the rationalisation and the rendering competitive of each and every aspect of life, pushing people towards ever harsher regimes of self-maintenance and self-improvement (e.g. Lupton 2016; Selke 2016a+b; Millington 2016; Moore and Robinson 2016; Ruckenstein and Pantzar 2015).

Authoritarian tendencies

The present article is positioned on the critics' side. It shares with them a deep concern over the potentially eroding effects on social solidarity and coherence that it finds hidden in the ways in which these practices and their facilitating devices are being conceived, implemented and rendered service- and profitable – ways for which the notions of optimisation and self-optimisation are central. What the article adds to the existing perspectives is a focus on the authoritarian tendencies inherent in digital self-tracking – tendencies that particularly the latest

phase in the development of digital self-tracking, in which private insurers seek to directly insert themselves into people's tracking practices, bring to the fore. In order to work out these authoritarian aspects, I will supply in this article a reading of the history of the first ten years (2007 – 2017) in the development of digital self-tracking – a history that spans from the beginnings of the *Quantified Self* movement in the Silicon Valley area, via its mainstreaming and commercialisation through mass-produced wearables, such as the *Fitbit* and the *Apple Watch*, to the current process of embedding self-tracking practices in the 'premium' policies of major private insurance companies. As I will argue, the glossing over of the central function of containment, which has been driving early self-tracking practices, in the marketing and establishment of mainstream wearable devices creates the disposition of a need for orientation and guidance that is only supplied when private insurers step in and set the fitness standards according to their risk and profit calculations. By telling people directly how to keep fit and how fit to keep, this process de facto introduces a private profit interest as a moral standard. As I will show, the insurers' profit orientation is linked to a client validation system that rewards the healthy ones.

In the following, then, and after having shed light on the specifics of digital self-tracking and its sociocultural implications in the context of digital media, I will seek to unfold the above history. I will do this by rereading and reassessing the existing research literature as well as submitting to close reading the pertaining discourses, such as autobiographical statements of Quantified Selfers, newspaper and magazine articles (plus the online comments they received), promotional materials, advertisements and annual report statements, particularly by the private insurer *Vitality* that has been at the forefront of systematically including personal health and fitness data into its premiums system.

The three pillars of digital self-tracking

Means and methods of quantification for the sake of improving habits and maintaining a healthy lifestyle date back much further than the current digitally facilitated trend (see e.g. Lupton 2013: 25f). Scales to measure our weight and marks on door frames of family homes capturing the growth of kids over the years are just two utterly mundane examples of such means of quantification. What is new in the current digital enhancement and expansion of such practices has been captured in three interrelated concepts (Meissner 2016: 235f). I will present them here in a critical light:

(a) Automation: While earlier practices demanded unfaltering attention and dedication of the people engaged in them in that they needed to be remembered, prepared, performed

and assessed purposefully and manually, the development in digital technology over the past decades has resulted in computers having become increasingly small, mobile, and ever more adept at merging with the human body. At the same time, the progress in sensor technology (gyroscope, accelerator, GPS, thermometer, cardio tracker, etc.) has made it possible for mobile devices to detect movement – i.e. not only the way in which devices are moving with us, but also the ways in which we become moved by our surroundings (i.e. our affective responses). In this way, the possibility for us to be constantly connected to wearables that are able to sense us and are geared to make sense of us, means that measuring processes are now being conducted largely without requiring our attention. Once configured, the recording, tracking, storing, analysing and circulating of the data largely happens automatically, for the self-tracker largely passively and, once the novelty has worn off, beneath people's awareness. The advertisement for the *Mi Band 2*, for example, promises that, 'With a built-in motion sensor, *Mi Band 2* knows exactly when you begin your workout. You don't have to switch modes or tell it before you start' (*Mi.com* 2017). Through this automatisation, what is being tracked is not only the activities and values that trackers in earlier days would have steadied and prepared themselves for, not only those 'workouts' that they had purposefully planned, but also those short runs made in order to catch a bus and/or the walk home because one has missed the bus. By the same token, however, automated modes of self-analysis are penetrating into ever more minute and intimate aspects of people's lifeworlds. As Gary Wolf (2009) writes enthusiastically: 'Numbers are making their way into the smallest crevices of our lives.' This is specifically the case for those aspects that could simply not be tracked before the mobilisation and sensitisation of digital media in the form of smartphones and wearables. These devices now hold the promise – as well as the threat – to give us insights into aspects of our bodies that we were not aware of at all or could only make assumptions about (Pantzar and Ruckenstein 2014: 9).

(b) Gamification/visualisation: The automation of measuring chores and bodily functioning goes hand in hand with processing the accumulated data and representing them back to the tracked self in forms of visualisations. However, as Orit Halpern (2014: 22f) points out, since a visualisation is per definition the rendering visible of something that does not in itself have a visible form, such a visualisation is always already an interpretation – and, as such, it usually follows a set of sociocultural conventions. A visualisation is thus never neutral, no matter how harmless it is made to appear. Overlooking the process

of digital self-tracking so far, we can see that body measurements that we would not have been able to produce without our devices, are automatically captured and immediately given an interpretation in visualisations that follow not only cultural conventions of intelligibility, but also conventions of quality and worth. Circles, bars, graphs, barometers, tables, lists, maps, tags, colours, icons, photos, animations etc. are designed to help turning trivial, everyday chores, and even bodily functions which are not directly control- and/or manipulable, such as heart rate and breathing, into sports-like challenges, establishing 'playful frames to non-play spaces', as Jennifer R. Whitson (2013: 164) puts it succinctly. And, one should add: competitive frames to non-competitive spaces.[i] For example, visualisations using circles are used to represent to users their own performances as pertaining to themselves, connoting notions of wholeness, completeness and calm. Bars in turn are mostly used to make comparative representations of users' performances amongst each other. The competition principle (Rosa 2006), however, is inherent in both. Also in the case of circular representations, it is one's current performance in comparison with one's prior performances that determines whether the circle remains unbroken.

(c) Rendering data social: The above concerns of automation, visualisation and gamification lead to the final aspect of digitally facilitated self-tracking, namely, that of rendering activity data *social*. Here is the point at which the current self-tracking movement, which can be seen as part of the Internet of Things, in which cars, refrigerators and a plethora of other devices are turning smart and networked and are communicating with one another without human intervention (Mattern and Floerkemeier 2010), converges with the more established, human-bound forms of online interaction captured in the promotional metaphor of "Web 2.0" (O'Reilly 2005; Fuchs 2012: 728). In view of the established corporate social networking culture whose for-profit-models are crucially based on stimulating and facilitating users' self-disclosure and the sharing of personal information that can then be commodified (e.g. Andrejevic 2011; Fuchs 2013), it is all but surprising to find 'social sharing' options with practically every tracking application. Gary Wolf (2010) captures the move towards the convergence of Web 2.0 and 3.0 (as the Internet of Things) in worryingly affirmative fashion when he suggests that personal self-tracking data 'are ideally suited to a social life of sharing.' Indeed, he even offers personal tracking data as the solution to the problem of social media exhausting its users' reservoirs of sharable self-information: 'You might not always have something to say', he writes, 'but you always

have a number to report' (Wolf 2010). In this spirit, *Fitbit*, *Nike+*, *Garmin* etc. all seek to construct and organise communities of healthy, active people sharing their activity data and allowing themselves to be ranked amongst their friends, acquaintances and, often, strangers – letting themselves be nudged, cheered and teased on by their networks, support groups or semi-publics delivered by the supplier of the app.

To offer a brief summary of the above points: By automating and passivising the act of self-tracking, *digital devices sound out corporeal personal realms that were not openly available to constant monitoring before* – at least not to the healthy, or, for lack of a better word: the inconspicuous. By visualising the accumulated data, mundane unconscious bodily functions are turned into performances that are thus made available to *cultivation – improvement and optimisation* – and, not least, to realms of *personal worry and care*. This process, in turn, is largely helped by notions of play and playful frames for people to assess their performances with. As we will see: Whereas this *path towards optimising performances* is first and foremost represented as a highly personal, customised endeavour, the forms of visualisation and, ultimately, the gearing of the data towards their being shared anticipates and *evokes a social orientation and, ultimately, a social standard and ideal*, no matter how vague and undefined it might initially be. As Deborah Lupton (2016: 74) writes, 'Underlying many accounts of self-tracking is a barely hidden discourse of morality'. The emergence and form of this morality, I argue, is closely tied to the authoritarian dimension that I want to unfold in this paper.

Foucault's revival – how self-tracking has been theoretically framed
Before starting to unfold this authoritarian dimension, however, it is necessary to take a short look at how the emergence of digital self-tracking has so far been framed theoretically. Here, the works of Michel Foucault have seen a major revival (see e.g. Bossevitch and Sinnreich 2012; Gilmore 2016: 2530; Moore and Robinson 2016: 2776). The creation of novel realms of personal care under the cybernetic paradigm, the visual interpretation of these realms as competitive – if in a lighthearted and playful manner – and their orientation towards social scrutiny renders Foucault's writings on truth, power, discourse and the body impressively current. Particularly his later works on the *Technologies of the Self* (1988) and his seminars on *Biopolitics* (2008 [1978-9]), but also his interest in panopticism, have been used to shed light on the beliefs that form the context for digitally facilitated practices of self-care – practices that people understand as being in their best self-interest and conductive to their becoming good citizens (Lupton 2016: 48–50). Furthermore, Foucault's conception of a non-repressive power

that makes people willingly adopt positions and practices that promote their subjection to a certain social order (Foucault 1980) has proven of value in assessing the emerging cultures of digital self-tracking (Lupton 1995; 2016). This conception refers us to the enabling, pleasurable associations that advertising for wearables suggests time and again. As the online promotional text of *Fitbit* has it, *Fitbit* delivers "New heart rate experiences to *love*" (*Fitbit* 2007, author's emphasis).

The critical literature on digital self-tracking has extended Foucault's theory of non-repressive, formative power relations with various theories capturing aspects of neoliberal government – Giddens's (1991) work on individualisation, Ulrich Beck's (1992) writings on risk, Baumann's (2000) notion of "liquid modernity" are three of the literature's mainstays. While all these conceptions seem to offer themselves quasi intuitively to the understanding of digital self-tracking, what I would like to add to them is a *psychoanalytically oriented understanding* that comes with a specific focus on fear and anxiety as drivers of the development of tracking practices. Such a focus on anxiety and its containment, I argue, offers a key to understanding the unfolding history of digital self-tracking up to the present point (see Gutierrez 2016). That such a concern with anxiety has been absent from the literature so far might have its reasons in the common perception of self-tracking practices as being predominantly enjoyable; and in continuation, it might have its cause in the Foucauldian and Deleuzian distaste for anxiety as well as the whole tradition of compensatory thinking starting with Plato (see Schuster 2017: 97ff). Foucault's (1980) conception of power as non-repressive, for example, can easily be read as a critique of the centrality of the notions of repression and anxiety in psychoanalysis (see also Foucault 1978). However, while Foucault's desire to challenge psychoanalytic epistemology is clearly discernible at several points in his oeuvre, it seems to me that his disciples are more anxious towards anxiety than he himself was. When, in *The Birth of Biopolitics* (2008 [1978-9]), he distills the nature of liberalism in the motto "Live dangerously" (2008: 66), the "fear of danger" is made one of its main building blocks.

> 'Live dangerously,' that is to say, individuals are constantly exposed to danger, or rather, they are conditioned to experience their situation, their life, their present, and their future as containing danger. […] The horsemen of the Apocalypse disappear and in their place everyday dangers appear, emerge and spread everywhere, perpetually being brought to life, reactualized, and circulated […]. In short, everywhere you see this *stimulation of the fear of danger which is, as it were, the condition, the internal psychological and cultural correlative of liberalism*. (Foucault 2008: 66-7, author's emphasis)

This observation I regard as fundamentally true of the sociocultural situation in which digital self-tracking is being established as a regime for the social mainstream, although, as I will show, it is heavily glossed over by the positive lingo with which the tracking devices are advertised.

Therefore, I want to argue that, while practices of digital self-tracking must surely be conceived within the frame of what Foucault calls the "double impetus: pleasure and power" (Foucault 1978: 45), the role that fear plays in the emergent constellations of pleasurable ideological coercion is of no little importance. As I will show in the following, it is the fear of danger that ultimately leads to the users' dependency on the private insurers. While self-tracking gives ever more responsibility for one's personal fitness to the individual, one of the insurers' central sales argument is to relieve users of this responsibility through a trade-off: *'You give us your data and we tell you exactly what to do and how much of it.'*

A History of Digital Self-Tracking

Part I: The birth of Self-Tracking from the Fear of Danger

"Personally, like, my goal is to basically be– an optimal human being in every aspect of my life" (PBS 2013). This statement by a devoted self-tracker on a 2013 *PBS Newshour* has been quoted frequently in the academic literature (Lupton 2014: 3; 2016: 65; Meissner 2016: 237), since it poignantly captures the wish for and drive towards optimization. What remains vastly unclear in the discussions of this quotation, however, is why anybody would subject themselves to such a regime.

"We're aware of how absurd this sounds. Self-knowledge through numbers", writes Gary Wolf, one of the movement's founders, in a *Wired* article (2009) in order to subsequently convince readers of the opposite. However, while Wolf can show – again in quantified form – that self-trackers are no more narcissistic and preoccupied with themselves than other people in contemporary Western societies, his appeals to sharing one's data for the common good remain vague, derived and secondary. Thus, as far as the basic motivations for self-tracking go, further snippets from the above *PBS* interview offer more concrete clues: "I have an elevated risk for type 2 diabetes", the interviewee offers as an explanation for his conscientious routines, and: "when I turned 40, for me was – you start looking ahead" (*PBS* 2013). While it remains unclear whether the awareness of "an elevated risk for type 2 diabetes" is a cause or effect of the man's tracking activities, the presence of a markedly anxious attitude towards sickness, death and finitude is palpable in the statements. Arguably, it is this anxiety that makes this case exemplary of the earlier stages of the movement's development.

The anecdotal evidence from the above case can be more systematically corroborated by a look at the online page of the *Quantified Self* movement. Amongst other things, this page hosts videos and transcripts of talks by members and affiliates of the movement outlining their tracking practices. Seeking to understand self-trackers' motivations, Choe, Lee et al. (2014)

conducted a content analysis of the videos uploaded there. Studying all applicable video presentations between January 2012 and April 2013, which amounted to 52, the researchers mapped the presenters' motivations for their histories of self-tracking and identified over two thirds of these as being connected to a health issue, with over one third reporting a concrete health problem as the main motivator for their track-keeping. Considering that these early practices emerged out of an environment dominated by tech-workers, programmers and developers, this percentage is even more significant. While the article mentions trackers' desire to optimize their workflow, use of time and resources, as well as a generally explorative and experimental attitude towards the technological possibilities as the two other discernible motivations (Choe et al. 2014: 1147), more or less concrete worries about health appear as the single concrete reason for developing tracking practices and devices.

Further light on anxieties related to health as the main motivation of early self-trackers can be shed by looking at the commentary sections accompanying key articles introducing the movement (Wolf 2010; PBS 2013). In the online commentaries to these articles, the unfolding conversations inevitably veer towards questions of norms, with the majority of the commentators condemning self-tracking practices as compulsive and pathological. However, while such a reactionary stance is hardly surprising for online debates (see e.g. Krüger 2015), what is relevant for the present argument is to find this conservative, condemning stance being repeatedly punctuated with the protests of self-trackers who point to the vital importance of their lifelogging practices: "Narcissism? When your blood pressure is through the roof and a cardiologist tells you to lose 25 pounds, keeping track of your weight and blood pressure is narcissistic?" What this pattern of interaction suggests is that fear – i.e. a concrete fear for one's health, or even one's life – is at the heart of a substantial part of early self-tracking practices. In this context of controlling chronic conditions, these practices have a clearly restitutive and therapeutic function of containment.

Containment and its pleasures

The concept of containment that I want to offer for the understanding of digital self-tracking is taken from psychoanalytic theory. Having received its decisive impulses from the analyst Wilfred Bion (1962 a+b), containment refers to early, pre-oedipal levels of development that include cognitive function and thinking. Building on Melanie Klein's notion of 'projective identification' (Klein 1946), Bion ventured that the act of placing unwanted feelings and emotional states in another person can also have a communicative function (see Schneider 2009: 86f). Passing on, say, states of uncontrollable rage, bottomless sadness or overwhelming

anxiety to another might thus be done in order for this other to elaborate on and translate these feelings so that they can be returned to the self in more controllable form.

I want to argue that this is what is being achieved in the early practices of digital self-tracking. Fears of life threatening dangers – 'through-the-roof' blood pressure, a survived heart attack or stroke, the threatening stages of diabetes etc. – are handed over to the tracking device which translates and returns these fears in controllable and manageable forms – forms that allow the self to relate to its condition in an active way. When in a recent article, Colin Campbell (2016) criticises the Western fetishisation of the digital and the resulting hubris of our trust in the measurability and manageability of everything, this fetish shows its productive, restitutive flipside in situations defined by the opposite of fantasies of omnipotence, namely, poor health and illness. In these cases, the digital in form of wearables can indeed function as a container for threatening, potentially traumatic experiences and a place to work on them repeatedly.

It is this container function of digital self-tracking that also defines the particular pleasure that can be derived from it. In this respect, Jacques Lacan's (1988) rendering of the Freudian pleasure principle offers a productive approach to understanding the pleasures of containment. Pleasure, Lacan holds, is a way of dosing out quantities of excitation so as to limit and control the latter. In his seminars on the ego, book II, Lacan (1988: 63) grants the pleasure principle a 'restitutive function', stating that it is 'the principle of regulation which enables one to inscribe the concrete functioning of man considered as a machine in a coherent system of symbolic formulations' (1988: 62). Indeed, one will be hard-pressed to find a more evocative formulation for the containing function of digital self-tracking. By measuring, visualising – and thus *symbolising* – the concrete functioning of 'man' *with* a machine (i.e. wearable devices), this machine-like functioning is inscribed into 'man's' self-conception. In so doing, the troublesome, unruly and unbounded excesses of *jouissance* – i.e. the excesses of unconscious desires, or manic states, rage, the self-oblivion of ecstasy, or the fragmenting free-fall of overwhelming anxiety – are channelled and contained in a regulating and restitutive form of pleasure that is to 'maintain at as low a level as possible the tension that regulates the whole functioning of the psychic apparatus' (Lacan 1992: 119, in Evans 1996: 148).

What I would like to take away from this scoop of the early phase in the history of digital self-tracking is the following: With the exception of an experimental and technology-driven interest in self-tracking in a minority of cases, the majority of early practices was motivated by more or less concrete health issues and a more or less concrete fear of danger, the excesses of which people sought to contain and regulate through their tracking activities. Thus, while enjoyable

aspects of self-tracking can surely be found in a fascination with technology, its mainstay seems to be the mild pleasure of controlling excessive excitation, i.e. from giving an unlimited, indefinite and threatening *real* a clearly discernible and interpretable symbolic form.

Part II: The Commodification of Containment

The commercialization of digital self-tracking and its establishment in the social mainstream is the second phase in its history. While an orientation towards profit-making was part of the Quantified Self meetings from the first (Lupton 2016: 35), the launching of mass-produced devices on the consumer market has added a new quality to the practices and their potentials. This phase, I argue, is defined by the question on part of the tech industry of how to make attractive to the majority practices that to a significant degree have been borne out of the need to contain threats to the self. The argument that I want to pursue goes as follows: By reinterpreting digital self-tracking in a radically positive light and by glossing over its origins in containing fears stemming from bodily ailments, the logic of this containment becomes diffused and extended to ever more spheres of life and the living body, which before were not considered problematic, bringing each and every activity and bodily function that is being tracked under the aegis of anxiety and its containment as well as the affirmative pleasures of self-mastery and control.

The promotional discourse with which the tech-magazine *Wired* has been framing the *Quantified Self* movement offers a good entry point into this development and its dynamics of avoidance and foreclosure. In 2015, Minna Ruckenstein and Mika Pantzar conducted an analysis of this discourse in articles from 2008 through 2012. As they write, this discourse is shaped by *Wired*'s "fiercely optimistic market-making efforts" (2015: 2) – efforts that are characterized by

> declarations of historical and cultural disjuncture (these ruptures have included the end of media, the end of the economy, the end of history and, more recently, the end of science), accompanied by announcements of the beginning of new eras of economic prosperity and technological advances (Ruckenstein and Pantzar 2015: 2).

What Ruckenstein and Pantzar (2015) work out in their analysis of 41 articles on the subject are four thematic clusters promoting the idea of self-quantification as a new paradigm of self-fulfillment. These thematic clusters they labelled "Transparency", i.e. that every aspect of the self and the world can be made transparent through quantification, "optimization", i.e. that "the calculating self can be perfected", "feedback loop", i.e. that the transparency achieved through tracking points to the individual behaviors that need changing in order for the individual to self-

optimize, as well as "biohacking", i.e. an emphatically fearless attitude towards self-experimentation and the extreme manipulation of one's own body (2015: 7).

While, in advertising fashion, the magazine seeks to avoid any associations that might be troubling to its readers, it is easy to poke holes into the surface of the discourse and point towards the reservoirs of anxiety lying just under its surface. Especially the theme of biohacking renders the absence of the fear of danger suspicious in that it makes it spectacular. When, in an interview, the biohacker Tim Ferriss explains his quantified body experimentation by saying "I wanted to find out what was just below the threshold of life-threatening" (*Wired*, October 2010: 158, quoted in Ruckenstein and Pantzar 2015: 11), this search paradoxically seeks to approximate exactly *that* point – *that flatline* – from which the majority of the early self-trackers sought to move and stay away from. In its heroic emphasis of fearlessness, the theme of biohacking and the way it is presented in *Wired* hits home the centrality of the logic of containment for the field. What it tells its readers can be paraphrased with Foucault's "Live dangerously!" – And, indeed, we can, because, according to *Wired*, it is just a matter of controlling *feedback loops*. As *Wired* editor Thomas Goetz writes in "Live Smart – Live Longer" (2010), "health is just a system of inputs and outputs". Approached from this angle, health becomes something directly manageable and manipulable and something that one can experiment with until one has reached an optimum homeostatic state. It is this belief which forms the core of the containment of health fears in quantification, only here it is used to facilitate a fantasy of omnipotence.

Another case in point is the theme of transparency. Here the anxiety-related aspects of self-tracking are flatly brushed off. "The underlying assumption", write Ruckenstein and Pantzar (2015: 7) with a view to transparency, "is that people are data-hungry and eager to take advantage of the growing amounts of data generated by sensors, satellite images, and search engines." However, as indicated above, whereas people struggling with poor health might indeed be data-hungry, because their sickness and the anxieties that come with it preoccupy most of their thinking, such hunger can be expected to be decisively less acute on part of people without such problems. Indeed, the latter might feel burdened, even threatened, by the prospect of being offered total transparency and a "window" into themselves "that was unfathomable a few years ago" (*Wired*, February 2012: 34, quoted in Ruckenstein and Pantzar 2015: 6), as it takes away from their carefreeness. In this respect, it is telling that one occasionally finds in the promotional rhetoric of self-tracking traces of soft coercion, as when Wolf explains self-

trackers' behavior by stating that "they believe their numbers hold secrets that they *can't afford to ignore*" (Wolf 2010, author's emphasis).

Enter Fitness

Yet, even with the help of soft coercion, recent sales figures for wearable trackers indicate that substantial parts of the social mainstream remain skeptical of self-tracking. A report by the *International Data Corporation* (IDC), a market intelligence agency, concedes that consumer demand remained behind projections. So far, the report states, the major problem with wearables has been that "their utility and necessity has been questionable at best" (IDC 2017). Under the heading "Wearables Aren't Dead, They're Just Shifting Focus", the report seeks to dispel the worries of investors: the wearable market still grew by 25%, it confirms calmingly, and 2016 came to a close "with 102.4 million devices shipped" (ibid). In this situation of mild disillusionment, the question of how to make self-tracking attractive to the population at large is being asked anew, and, against what I have been working out so far, it might be paraphrased as: How to convince sufficiently healthy people to worry more about themselves? The answer that is currently emerging is: *fitness*. Fitness, the *IDC* press release states in relation to the wearables market, "has been the only use case with any 'stickiness'" (*IDC* 2017).

As Brad Millington (2016: 1185) writes, fitness "is commonly associated with strength, flexibility and cardiovascular endurance", but it also includes "feelings of capacity and control, as well as perceptions of social norms and expectations". In this latter focus on norms in particular there announces itself a moral and relational dimension that can be unpacked further with the help of the *Oxford English Dictionary*. Beyond the "state of being physically fit", the *OED* lists *suitability*, *qualification* and *competence* as established meanings, the "state of being morally fit" and *worthy*, as well as "conformity with what is demanded by the circumstances; propriety" (*OED* 2017: "fitness"). For my walk through the history of digital self-tracking both the basic physical dimension and the moral, relational one become relevant. Under the aegis of fitness, the containment of the fear of danger finds its alternative articulation in the moral obligation of shaping one's body and maintaining it in a shape that is adequate, suitable and worthy in relation to existing social norms. Concrete health issues and the task of containing them thus become diffused into vaguer and more general worries about one's rightful place in society. In this process, the logic of containment becomes dispersed into the most remote niches of individual existence. "That's the idea *Fitbit* was built on – that fitness is not just about gym

time. *It's all the time*" (*Fitbit* 2017, author's emphasis). Or, in the words of the *Apple Watch* promotional page: "Every move counts. So count every move" (*Apple Watch* 2017).

One of the images on the *Fitbit* page that is to prove fitness's total – and *totally desirable* – pervasion of life shows young people dancing in the twilight of what might be a club or an outdoors party. "How you spend your day determines when you reach your goals. And seeing your progress helps you see what's possible" (*Fitbit* 2017), continues the text that is superimposed over the image (which I began to quote from further above). In this way, even an evening out, partying and dancing with friends – i.e. an activity usually identified with more dubious fitness effects – is now brought under the logic of the worry over one's propriety. Spheres of play are becoming vetted for their capacity to maintain the individual in the best possible relation to reality. Notions of competition and rational choice, the two main pillars of neoliberalism (see Bröckling 2016: 59f), are introduced into spheres that have traditionally been seen to offer respite from such preoccupations. In this light, optimization in digital self-tracking comes to mean the production, identification, and subsequent containment, of an ever-increasing number of activities and bodily functions that can be submitted to worry by being made measurable, comparable and thus potentially assessable for their social and moral fitness. "Seek it, crave it, live it", ends the *Fitbit* (2017) promo-text that simply cannot shake the more worrisome associations of containment, no matter how hard it tries to present self-tracking in a positive, desirable light.

How fit is fit enough?

Returning briefly to the example of the self-tracker who confessed on *PBS* that his goal is to become "an optimal human being in every aspect of my life", what I hope becomes perceivable against the above is that this wish to be optimal amounts to the anxious question of *Am I good enough? Am I worthy of claiming my place in society?* Since the principle of competition keeps social standards fluid and in upward mobility, it literally takes *optimal* human beings to meet them. In this respect, the above questions also hold a key to an understanding of the kind of narcissism that digital self-tracking breeds. "[N]arcissism, in the simplest sense", writes Aaron Balick (2014: 81), "is a defence produced in response to misrecognition" – for example in the relationship between child and parent, "when recognition fails and the parent sees the child as an object, or as an extension of the parent's own self" (ibid). When a subject becomes caught up in such a misrecognition of another, Balick continues, it will attempt to fashion itself along the lines of what it believes it is required to be. This preoccupation with oneself as a defensive reaction to the question of *How does the other want me to be?* is at the core of narcissism and,

in elongation, it is this anxious question that is structurally produced and reproduced by automated digital self-tracking. Each of the variables that the tracking devices measure repeatedly begs the question of conformity and adequacy of its user – *Is this healthy? Is this ok? Is this right?*

In my view, the fluid social standards that drive the anxious wish to be optimal go hand in hand with the move towards personalization and customization in fitness tracking. "[S]et your goals and get moving" (*Apple Watch* 2017). The more our tracking devices afford us to *find our own fit(ness)*, as the devices' promotional texts have it (see e.g. *Fitbit* 2017), the more we are being made responsible for the fit of this fitness and the social adequacy of our workout regime – and the more daunting becomes the question of the social norm, exactly because it is never clearly brought into view. By promising fitness "for everyone" (Millington 2016: 119), the tracking devices invite us to keep the question of *How fit is fit enough?* at a distance. Indeed, this seems to be so despite the social functions that are offered as a standard with every tracking app and device. As Rooksby et al. (2014: 1165) report, none of the self-trackers they interviewed shared their data with their social networks: "The social features of apps almost became a running joke during the study. People would often say that the app connected to social networks such as Facebook, but when directly asked if they use that feature they invariably said 'no'" (Rooksby et al. 2014: 1165; see also Meissner 2016: 236f). While trackers usually shared their data in small circles, i.e. with one or two friends, family members or a limited number of colleagues, posting such data on Facebook was criticized by several participants, because they associated it with egotism and narcissism and with putting social pressure onto themselves and others (Rooksby et al. 2014: 1170). Especially the statement by one of the interviewees, that "it's almost one of those things where you set yourself up for failure" (in Rooksby et al. 2014: 1171), gestures in the direction of what I am suggesting here, namely, that customization and the notion of *finding one's own fit* go together with an anxious avoidance of the social dimension of fitness and the question of *How fit is fit enough?*

Turning a blind eye to corporate surveillance
Translating this situation into the idiom of surveillance, which has been a topical concern of studies into social media (Andrejevic 2011; Debatin 2011; Marwick and boyd 2014), one could say that what emerges from the research literature is that peer-surveillance is flatly rejected by self-trackers. In other words, while trackers always have a number to share, they very seldom do so intentionally. At the same time, however, *corporate surveillance* proves to be a much

more ambiguous issue. Indeed, in a parallel to online social networking, the storing, mining and repurposing of user data by the device and app suppliers is part and parcel of what self-trackers are required to tacitly tolerate and push out of their minds when starting to digitally track themselves (comp. Fuchs and Sevignani 2013; Krüger and Johanssen 2014). The extent of this corporate surveillance becomes apparent in a study of twelve health and fitness apps conducted in mid-2014 by the US-American Federal Trade Commission (FTC). The commission found that, altogether, the apps "disseminated user app data to 76 third parties" (Kaye 2014): "Fourteen third parties grabbed usernames, names and email addresses from the apps, while 22 received data on exercise and diet habits, medical symptom searches, zip codes, geo-location and gender" (ibid.). When Gary Wolf (2010) suggests that "One of the reasons that self-tracking is spreading widely [...] is that we all have at least an inkling of what's going on out there in the cloud", this interpretation is diametrically opposed to the one I am suggesting here, namely, that users actually try to avoid thinking about what is going on "out there in the cloud". After all, it is in the 'cloud', i.e. in a digital, networked infrastructure, that user data are accumulated *en masse* and quantification can unfold its standardizing, normalizing potential. Where I agree with Wolf (2010), however, is that "we all have at least an inkling of what's going on". In the case of corporate social networking, for example, the circumstance that we sign away the exclusive copyright to our data when ticking off the obligatory "terms and conditions" box has long since become common knowledge (e.g. Trepte 2015). It would therefore be naïve to expect corporations to show more restraint with tracking data. Thus, whereas trackers' rejection of the social features of their apps and devices suggests that they seek to avoid being confronted with openly competitive situations and the social dimensions of fitness, users will nevertheless have a dim knowledge of their tracking data being sold on and 'shared'. In this light, the "inkling" that Wolf (2010) refers to can be understood as the vague awareness that, even if we abstain from measuring the social fit of our fitness, others will not have such qualms.

Phase 3: A strong Partner to help us on the way

It is the situation unfolded above, in which digital self-trackers react to covert corporate surveillance by turning a blind eye (Steiner 1985; Krüger and Johanssen 2014), that prepares the ground for the third, current phase of digital self-tracking. This phase is marked by private health insurers seeking ways to integrate quantified tracking data into their health and life insurance programs, inviting clients to directly submit their tracking data to them. In this way, trackers get access to premiums and benefits – from *Starbuck's* vouchers to price deductions on their insurance fees – and the insurer obtains access to its clients' personal activities and

health stats. To my mind, it is this turn that introduces a potentially authoritarian dynamic into the phenomenon of digital self-tracking. In a situation in which people are dimly aware that their data are being mined by interested third parties, without them knowing, however, who these third parties are and what their interest in their data is, the offer on part of private insurers for clients to hand their data over to them directly amounts to lifting a veil. The covert, vested interests of third parties are being made open and concrete. Paradoxically, I want to argue that this move amounts to offering clients relief – relief from the indeterminacies of the social and from the pressures of responsibility. What trackers are being offered in the tracked-fitness deals is the possibility to free themselves of the burden of finding their own fit and of determining their own optimum in exchange for a concrete standard that is being set by an outside authority. In this trade-off, then, the logic of containment returns once more in that trackers can exchange insecurities and contingencies for a new dependency. The private insurer offers itself as our guiding authority. This authority tells us exactly how it wants us to be and what it expects us to do and it promises to judge us accordingly. That this judgement will be based on the authority's private interests might then be seen as more tolerable than the 'great wide open' of one's own optimum.

'Shared-Value Insurance'

The *Vitality* insurance company, a subdivision of the globally operating *Discovery* group, is the vanguard of reward- and incentive-based health and life insurances. "We encourage you to lead a healthier life and reward you for doing so", it reads on its UK health insurance page. And: "we give you something back when you get active and track your activity, meaning you can benefit without having to claim" (Vitality UK health 2017). Under the title "Vitality Shared-Value Insurance", the company has been offering insurances the rates of which are calculated on the basis of the tracked and quantified fitness behavior of its clients. In the UK, *Vitality* is even offering an *Apple Watch* deal as part of its insurance program. In return for a bargain prize for the device, clients commit to a considerable physical regime and, in the case of underperformance, are being taxed with an extra monthly fee.

In *Discovery*'s 2016 *Integrated Annual Report*, the "Shared-Value" scheme is presented as a '*win-win-win* situation': "Clients" profit from "improved health" and "better value through better price and benefits". The "Insurer" profits from "lower claims", "higher margins" and "lower lapse rates". And "Society" profits from becoming overall "healthier", from "improved productivity" and a "reduced healthcare burden" (*Discovery* 2016: 25). Under *Vitality*'s rule, then, there are no losers; we will all prosper and never take sick or die. The pun in the "Shared-

Value" slogan seems to be intended: clients are to "share" their "values" (i.e. fitness data) via their tracking devices so that the insurer can make sure that they are also "sharing" the insurer's "value" of its clients working hard for good health.

With its core markets being South Africa and the UK, *Discovery* has recently started to expand into other markets as well. In 2016, it sold its "Shared-Value" scheme to insurers across the world. In Asia, it initiated a co-operation with *AiA*, in Germany and France with *Generali*, in China with *PingAn*, in Japan it operates as *Somitomo Life*, in the US with *John Hancock* (*Discovery* 2017: 23). Taking the presentation on the German *Generali Vitality* life insurance page as my example here, one can see how the externalized super-ego-like authority, which clients are invited to depend upon, becomes evoked and erected: "A healthier everyday life has a lot of advantages", the page starts explaining the insurance scheme, "But in the long run what is often missing for us to lead an active life is a strong partner who motivates, rewards and accompanies us on each step. This is changing now with *Generali Vitality*, the program of the small steps." (*Generali Vitality* 2017)[ii] And with a view to the philosophy behind the scheme: "That is important to us: to be a partner that motivates and supports. That fills you with enthusiasm to live more actively and eat more sensibly. Completely without pressure and just because you want it. Because you feel better with every step." (*Generali Vitality* 2017)

On any of *Vitality*'s online pages, one can witness how notions of personal fitness are funneled into significantly more binding assessment standards. Upon joining, clients are to register online and take the "Health Review". This review is used "to set you some goals and suggest some of our partners to help achieve them", it says on *Vitality UK*'s health insurance page (Vitality UK health 2017). And:

> You'll also be able to find out your Vitality Age – our scientific calculation that assesses the impact of your lifestyle on your health. Your Vitality Age may be higher or lower than your actual age but it's a great way of understanding your health in an easy and straightforward way. (Vitality UK health 2017)

The *Vitality Age* works along the lines of the well-worn joke of the doctor telling a patient that 'You are in great shape for a 70-year old. Such a pity that you're only 30!' The effect of this ranking tool is either flattering and calming – *I'll live to be a 120!* – or anxiety-provoking – *I'm a ticking time bomb and could die any second!* Luckily, *Vitality* has yet another tool that serves to contain the potential anxieties derived from the *Vitality Age*. Upon entering the program proper, the insurer offers a hierarchy of awards in the Olympian spirit – bronze, silver, gold and, somewhat out of character, platinum medals (*Vitality* fitness categories, e.g. Generali Vitality 2017).

The more fitness points trackers collect – by subjecting themselves to regular health checks and measuring the amounts of standing, walking, running, swimming, working out etc. – the higher they climb in the hierarchy, the more rewards they are entitled to receive – free coffees, cinema tickets, discounts on sports equipment, air travel, holidays and lowered insurance rates. At the same time, and more importantly still, clients are given a tool with which to make sure their personal fitness *fits*. In other words, they are given the possibility to relieve themselves of the burdening question of the adequacy of their personal lifestyle choices by handing the whole task of determining their fitness and worth over to their insurance company. The burden of worrying about oneself is thus exchanged with the dependency on an authority that promises us, not to relieve us from this burden entirely, but to limit it by virtue of concrete, if considerably strict, demands.

Choosing a reward-based insurer such as *Vitality*, then, is not so much an embrace of the competition principle (Rosa 2006) in the sphere of personal health and well-being – indeed, this embrace is already inherent in the commercialization of digital self-tracking. Much rather, in the peculiar situation to which this commercialization has led, the choice of a reward-based insurance means the *containment* of the competition principle and an ever-fluid notion of competition that is captured in the concept of optimization: the open-ended struggle with oneself. Openness and fluidity become contained and limited in the solid standards that are spelled out and set by the insurer. No doubt, these standards will serve the latter's profit-making interests, but at least they are communal in that they are binding for all clients. Viewed in this light, it might indeed be the longing for "shared values", i.e. for communal standards and for *less* competition that drives people towards reward-based insurance offers. We might not all be equally fit, but under the insurer's guidance we can at least aspire to the same fitness values. And in case we fall sick, there is someone who will know whether we deserve to be helped or not.

Conclusion

In summary, what I hope has become perceivable in my account of the history of self-quantification is the following: Approaching digital self-tracking as a technology of self-care with a focus on worry, fear and anxiety results in a peculiar sequence of displacements of such anxieties and their containment – a sequence that, at its current point, unfolds an authoritarian dimension. Starting with tech-workers creating appliances and devices with which to track and contain concrete health worries by giving them a quantified and thus manageable form, this logic of containment becomes glossed over in the phase of commercialisation. Anxieties and

their containment become diffused and begin to colonise potentially every aspect of personal tracking practices. Under the aegis of 'fitness for everyone' (Millington 2016), the logic of worry starts colonising life itself (Rose 2001) and tracked fitness becomes a matter of social worth and fitting in. Furthermore, while the customisation and personalisation of quantified fitness makes more general assessment standards recede into the background, this is countered by the tacitly known reality of corporate surveillance. Whereas users might refrain from actively comparing themselves with others online, most of them know that there are third parties who do so covertly. In this situation, in which users are instigated to self-optimise against the vague knowledge of vested third-party interests, the rendering concrete of such interests on part of private insurers is equivalent to pulling away a veil: *'You know that we can get our hands on your data anyways, so best give it to us directly and we'll buy you a coffee!'*, seems to be the deal suggested to the insurant. And, indeed, agreeing to this offer has the potential to function as a relief – a relief from the pressures of being responsible for one's own physical propriety in a radically indeterminate and contingent context. *'Wondering how fit is fit enough? Well, you have the data, we have the answer!'*

The authoritarianism that I see arising here lies in the exchange of the indeterminacy of one's personal fitness for concrete and binding standards defined by the private insurer. Burdened with the ever-increasing weight of responsibility for oneself, people are being invited to cast off this responsibility by making themselves dependent on a "strong partner". This authority promises to contain our worries by telling us exactly how fit we must be to fit in. By rewarding us for good health, does the unequal partnership not cultivate the expectation of being punished for poor health as well? In the end, then, when we find that we can no longer keep up with the corporate gold standards, we might be the first ones to agree that we had it coming.

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[i] Sarah Miriam Pritz (2016: 181), for example, observes about the visualisation of emotions in tracking apps, that "positive feelings and emotions consistently form the upper end of the scales. Emotions, therefore, are not only categorically arranged – and therefore also 'generated' as specific categories – by these self-tracking techniques, but also hierarchically ordered and rated".

[ii] All translations from German into English are the author's.