

Tracking the Self in Self-Tracking: Gilles Deleuze and the Quantified Self

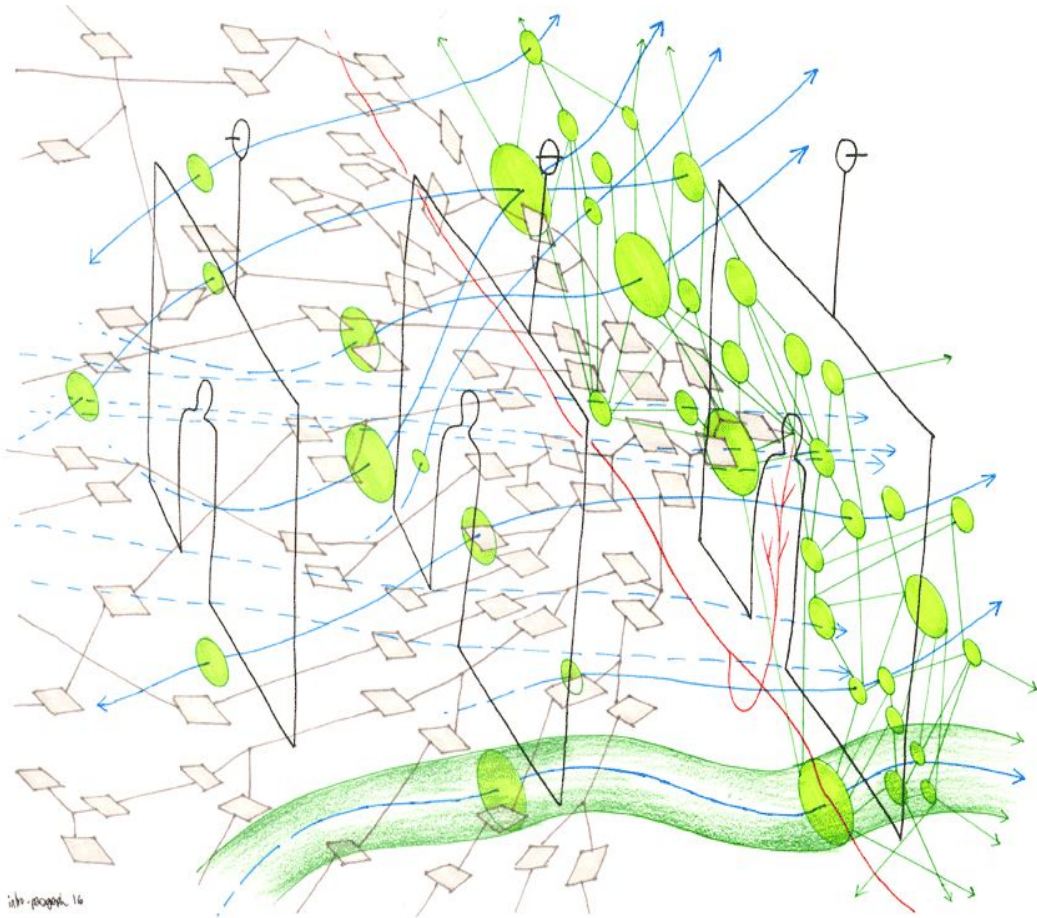


Figure 1: 1000platos-intro-16 (Ngui, 2006)

Name: Jonathan de Haan

Student Number: s1863231

Institution: University of Twente, Faculty of Behavioural, Management, and Social Sciences, Enschede, the Netherlands

Programa: MSc Philosophy of Science, Technology and Society - PSTS
University of Twente

Supervisor: Dr. Lantz Fleming Miller

Second reader: Professor Peter-Paul Verbeek

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Abstract

Ubiquitous computing resulted in more and more of the relations that people have with their technologies becoming ambient one's. By examining the practices of self-tracking, a number of things will be investigated in order to show how the subject is being shaped by technologies in modern society. Through these technologies the boundaries that separate a human being from the rest of the world are shifting, and at times even disappearing, at an accelerated rate. In questioning the boundaries and the limits of the individual, the question of what it means to be human surfaces, begging for an answer. The term posthuman, or posthumanism has become central to this debate. This essay aligns itself with those that can be called radical post humanistic thinkers and the subject is thus seen as as nomadic, embodied and embedded within a locale. Self-tracking, as a practice, is an activity that has the ability to either increase or decrease affectivity and awareness of embodiment and embeddedness and can thus serve as a vehicle to investigate how technologies in everyday society are devices that are part of forces of subjectification. The philosophy of Gilles Deleuze and Felix Guattari will underpin a large part of the arguments of this essay. Deleuze and Guattari, through all their works, called their approach to philosophy, or life in general, "rhizomatic" (2015, 1). The rhizome is a root system without a clear beginning and without a clear end, and it is therefore always in the middle. The main take away from this can be summarized in two central assumptions, that will also form the basis of this essay. One, the subject is not given. Meaning subjects and individuals are created and they change over time. Two, it is 'in between' that anything happens. The following research question will guide these investigations: "What can a post-humanistic perspective on subjectivity, that frames the subject as being shaped and always evolving, reveal about the subjectification processes that are involved in practices of self-tracking and self quantification?" The conclusion that will be drawn, is the need of an ethics of becoming, one suited to life as an expression of affect and desire. As life seeks to overcome problems, seeks to express itself, it seeks to make connections. This is what desire is: life seeking to enhance its power by making new connections. A nomadic subject is one embedded and embodied, and the power to be affected is the power to make new connections.

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Tracking the Self in Self-Tracking: Gilles Deleuze and the Quantified Self	0
Abstract	1
Acknowledgments	2
Introduction	5
The Posthuman and Tracking the Self in Self-Tracking	5
Research Question	6
Methods of Analysis and Structure of the Essay	7
Chapter 1 Practices of Self-Tracking	9
1.1 Practices of Tracking and Quantifying the Self	9
1.2 To Track or To Quantify?	12
Chapter 2 The Posthuman	14
2.1 The Boundaries of the Self	14
2.2 Four Types of Posthumanism	14
2.3 Braidotti's Posthumanism	16
2.4 Deleuze, Guattari and The Posthuman	17
Chapter 3 Thinking Beyond the Subject: Philosophies of Subjectification	18
3.1 Gilles Deleuze and Felix Guattari: a Short Introduction	18
3.2 Dynamic Systems	20
3.3 Rhizome 1 :Rhizomatic versus Arborescent	21
3.4 Rhizome 2: The Virtual and the Actual; On the Univocity of Being	22
3.5 Body Without Organs	24
3.6 Organisms, Mechanisms and Machines	25
3.7 Schizoanalysis: Deterritorialization and Reterritorialization	27
3.8 Becoming Imperceptible and Making Oneself a Body Without Organs	29
3.9 Thinking Beyond the Human: Foucault and Nietzsche	30
3.10 Nietzsche: Active and Reactive	30
Chapter 4 Self-tracking and Subjectification	32
4.1 Sailing on the Plane of Immanence	33
4.2 Coding on the Plane of Immanence: The Body Without Organs	34
4.3 Assemblages 1: From Comensuration to Self Awareness	37
4.4 Assemblages 2: Desiring-Production	39
4.5 Societies of Control	41
4.6 Foucault and The Fold	45
Chapter 5 Conclusion	47
Future Research and Suggestions	48
References	49

Introduction

The Posthuman and Tracking the Self in Self-Tracking

Ubiquitous computing resulted in more and more of the relations that people have with their technologies becoming ambient ones. The contact and interaction with devices is in the background and indirect, woven into a web of overlapping networks. Access to information, and the processing of large quantities of information, has thus gone mobile to such a degree that the absence of any computing technology is an exceptional event in the daily routine of most people. One of the areas that has seen a large growth because of this, are technologies of self-tracking. The decreased size of computing hardware itself, the growth in storage capacity and processing power, and the increased possibilities of wireless communication makes it possible for people to accrue vast amounts of data on themselves. In practices of self-tracking this data is then applied in a process, that can be described as a technology of the self. In this way, the self is taken by the self as an object of investigation and improvement. Subsequently, the boundaries that mark an individual come into question. Through these technologies the boundaries that separate a human being from the rest of the world are shifting, and at times even disappearing, at an accelerated rate. In questioning the boundaries and the limits of the individual, the question of what it means to be human surfaces, begging for an answer. Countless pages have been written revolving around this question, and in more recent decades the term posthuman has begun to take hold of the imagination for some of those, probing for an answer.

The discourse that constitutes the posthuman geography is a complicated one. The posthuman, or posthumanism, can mean very different things to different people. A central topic within this discourse, is the place that the subject holds within the world. Subsequently, the nature of the relationships between the subject and other subjects, and the subject and objects within this world, and how this in turn shapes the subject, is at core what the posthuman is about. The philosophy of Gilles Deleuze, and to a large extent his collaborations with Felix Guattari, have contributed greatly to the debate that informs certain more radical forms of posthumanism. Braidotti, in her book *The Posthuman* (2013), describes how what she terms *anti* humanism, leads her “to object to the unitary subject of Humanism

(..) and to replace it with a more complex and relational subject framed by embodiment, sexuality, affectivity, empathy and desire as core qualities” (2013, 26). It is this nomadic, embodied and embedded subject that is the topic of this essay. Self-tracking, as a practice, is an activity that has the ability to either increase or decrease affectivity and awareness of embodiment and embeddedness. Furthermore, the question at stake for posthumanist thinkers is: is the human subject as an autonomous and rational agent, observing the world from a detachment viewpoint, and interacting with the world of her or his own volition? The posthuman subject for these theorists is embedded in an environment and this environment thus shapes and creates the subject. Technologies of self-tracking occupy an intimate place in the personal ecology of an individual. These technologies serve reductive and quantitative purposes on the one hand, and yet can enable an increased sensitivity to one's own body and the environment one is embedded in.

By examining the practices of self-tracking, a number of things will be investigated in order to show how the subject is being shaped by technologies in modern society. The main concern of this essay will be in which ways the subject and subjectivity are being changed in a society of ubiquitous computing, and self-tracking technologies will be used as a vehicle for this exploration. Much of contemporary radical posthuman philosophy is greatly indebted to the philosophy of Gilles Deleuze. By using certain concepts as developed by Deleuze and Guattari this essay will take notions of a stable subject, in a dualistic relationship with the ‘outside’ world, and critically challenge them. What this subject will be replaced with, is a subject under constant flux and evolution, a subject that is shaped by flows and forces of subjectification.

Research Question

What can a post-humanistic perspective on subjectivity, that frames the subject as being shaped and always evolving, reveal about the subjectification processes that are involved in practices of self-tracking and self-quantification?

Methods of Analysis and Structure of the Essay

The first chapter will give a brief description of self-tracking practices. From this it will become clear that the subject involved in self-tracking is part of a larger network of

influences that put the subject in a web of subjectification processes. Chapter two will then provide a short survey of the posthuman discourse, in order to situate the current essay within the larger debate. While certain strands of posthumanism, for instance what Sharon (2014) calls the methodological kind, take into account these processes of subjectification, the argument of this essay is that they do not go far enough in tackling the subject as part of, and co-constituent of an ever evolving landscape. A landscape in which the subject is just as changed by her environment as she changes her environment in turn. In short, there is an implied dualism still involved in the way that methodological posthumanism views the subject-technology-world relationship. It is in the radical posthuman theorists that we find a perspective on the subject that takes the co-constitution of subject and world into account. And it is in Deleuze and Guattari that we find this perspective, of the subject as always becoming, worked out to the fullest.

In Chapter three, a framework will be created on the philosophy of Deleuze and Guattari in order to introduce certain concepts that will prove useful in an analysis of the self who is involved in self-tracking. It is important to notice here that Deleuze and Guattari, through all their works, are involved in a critique of representation and that they called their approach to philosophy, or life in general, “rhizomatic” (2015, 1). The rhizome is a root system without a clear beginning and without a clear end, and it is therefore always in the middle. The main take away from this can be summarized in two central assumptions, that will also form the basis of this essay. One, the subject is not given. Meaning subjects and individuals are created and they change over time. Two, it is ‘in between’ that anything happens. In between the manufacture of a device and the reasons it was designed. In between the way something is designed to be used, and the way that someone uses it. In between the desire to become healthy and the moment that that transformation might occur. In between cultural ideas that prescribe the parameters of healthy, and a person’s own subjective experience of what healthy is for them. Nothing happens in isolation. And the same holds for ideas and concepts, created by philosophers. Deleuze and Guattari’s philosophy did not occur to them in isolation. Certain ideas of Michel Foucault and Friedrich Nietzsche will be shown to have either influenced the thinking of Deleuze and Guattari, or can be used as complementary to certain concepts as they are used in this essay.

The focus of chapter four will be on the subject, or the site of subjectivity that constitutes the subject, as he or she arises from subjectification processes. However,

subjectification happens through an intricate combination of diverse forces and flows which can be cultural, social, or economic. As will become more and more clear throughout this thesis, a dichotomy between a single subject and society at large will become hard to maintain, when seen through the philosophy of Deleuze and Guattari. Chapter four will thus be about the subject, but a subject in a culture, living in a society.

Chapter 1 Practices of Self-Tracking

Self-tracking as a practice of data collection is not a singular phenomenon. The reasons for self-tracking and the ways in which a person can allow the practice to be of use to them are highly diverse. In what follows a number of different ways of self-tracking will be discussed. What will become clear is that there is a huge variety of reasons for wanting to self track, and that the choice of device, visualization of data and the amount of critical reflexivity by the user, can have significant impact on the practice, and the results for the person doing the tracking.

1.1 Practices of Tracking and Quantifying the Self

Neff and Nafus, in their book “*Self-tracking*” (2016), give a critical overview of practices related to self-tracking, and list five common styles, or purposes, of self-tracking:

“(1) monitoring and evaluating, (2) eliciting sensations, (3) aesthetic curiosity, (4) debugging a problem, and (5) Cultivating a habit” (70). These five will be discussed using examples below.

Most commercially available self-tracking devices are used in the category of monitoring and evaluating. The most obvious examples usually involve the tracking of heart rates and steps taken through wearable devices, in order to improve physical fitness. As Neff and Nafus note, tracking done in this style usually takes the results that are produced without question. There is a pre-given amount of steps one has to take to be healthy, and reaching this goal is what counts. An individualizing of the data is then not uncommon since the results of the accomplished set of actions is what counts for the user. Neff and Nafus cite the use of stars instead of miles run (2016, 73), or the switching from pounds to kilos when measuring weight (2016, 73). In the first case the numbers did not communicate the feeling of accomplishment that came with completing the set goal, while in the second case, the weight numbers were value laden and were experienced as confronting. So while there is a certain amount of reflexivity involved in the way that the devices present the results, the way in which the results are given by the device is usually less critically engaged with by those tracking in this style.

The second style that Neff and Nafus describe consists of users that track to elicit sensations and who actively seek out to the differences between sensations felt in the body and their own reactions to the data that is produced. In this way the data becomes a “prosthetic of feeling” (Neff and Nafus 2016, 75). In what Kevin Kelly has dubbed ‘exosenses’ (Neff and Nafus 2016, 78) the technology that is used, assists in heightening the users own senses of the body and the environment. Of import here is that while the technology functions as an exosense, it is not to be confused with a permanent enhancement. Between the sensations that produce the data, and the feedback that is given by the device there is a certain interpretation taken place that allows for a subjective interpretation of the phenomena. In this manner, the body and mind learn to pick up on certain new signals, and the technology in this manner is used to heighten a certain bodily awareness of mindfulness. The devices record and present the phenomena that happen to the body and the mind as certain events take place, and are thus able to create a sensation of awareness that without the device would have been harder to attain, hence the term exosense.

In some cases this is merely a renewal of sense, in other cases the acquired sense is a novel one. In this way, certain similarities to mindfulness practices can be found when tracking to elicit emotions. The complexity that can arise in enhancing one's sense, and how the cultural environment can react to this, is highlighted by the following example. Y. van de Geest, a speaker at a QS conference in 2012, asked the audience if they felt that: “If you outsource your awareness to technology, do you risk losing your intuition?” (Boesel 2012). One woman replied that she was a patient at a fertility clinic, and that she was self quantifying to track her fertility, and that this tracking had strengthened her ability to sense when she was ovulating. Her sense of her own body was not believed by the clinicians through, when their own tests told them the opposite. Through her insistence, additional test where done everytime that her own sense of her body did not line up with the clinics results. Through ultrasound, it was proven that she, indeed, was ovulating when she claimed she was. She felt that technology, though heightening her own senses, “interfered with [her] ability to communicate with the clinic.”

Tracking for aesthetic curiosity, the third category, shows an overlap with tracking to elicit sensations. However where both styles seek to elicit a response through data gathered by devices, aesthetic curiosity's purpose is usually more creative and playful, but is not

merely limited to the realms of art. Most of these practices are geared towards renewing the relation between the environment and one's reactions to it.

The fourth style of tracking, debugging a problem, takes its name from computer programming where it is used to find the problems that prevent a system from working as it is supposed to. Together with aesthetic curiosity this category exemplifies best the ways in which a body is a system that is part of a larger system. Body and world are not separate but form a whole together. Debugging, when it comes to self-tracking, is used when someone keeps experiencing certain effects of illness, but a diagnosis is not forthcoming. To properly test all possible causes, a larger set of influences needs to be taken into account, in order to look for allergic reactions, causes of fatigue or sleep related issues or other symptoms. For instance Anne Wright (Neff and Nafus 2016, 84), a former NASA roboticist, became too sick to work, yet multiple specialists could not provide her with a helpful diagnosis. She used her debugging skills, learned from her (now former) job, working on Mars Rovers, to collect data about herself. Documenting what she was eating, experimenting with heart rate sensors and diets and tracking these consequences carefully, her symptoms became reducible to “one of three ingredients, all in the nightshade family” (Neff and Nafus 2016, 85). Both the allergy and the reaction her body was having are considered uncommon, or rare. By rigorous debugging of her own system, meaning here both her body and the environments she was frequenting, Wright found a solution that helped her.

The last style, cultivating a habit or “habit hacking” is focused more on what data can reveal and how it can be used to change one's behaviour. Results gleaned from data through techniques of debugging or eliciting sensations can now be used to map one's habits and create new habits or change old ones. Self-tracking assists in identifying the cues and routines that one is engaged in, in order to reveal certain desires as they are part of larger *assemblages*. For instance the habit of eating sweet snacks in the afternoon, can be revealed to be more about boredom than the enjoyment of the snack itself (Neff & Nafus 2016, 91). In habit hacking, there is a very clear idea that desire can be a driving, yet hidden force, and that this desire can come from material and cultural origins. The subject that is involved in these practices, accepts that not all habits are conscious, and that reasoning is supposed to explain that the purpose for a certain habit might just as well cover up the true origins of the desire or habit, instead of explaining them. Reasoning in this manner is actually used to obscure desires that are hidden from conscious thought for many different reasons. Cultivating a habit,

as a self-tracking practice, thus is a technology of the self in the most disruptive manner, when it comes to boundaries of the self. For there is an active work of the self on the self, through various activities and the use of various devices. Furthermore, in order to engage in this type of tracking a certain amount of acceptance needs to be given to the idea that most habits are social and contextual. Engaging in habit cultivation through self-tracking can be seen as a next step, from earlier mentioned styles, for self can now be seen as a subject of investigation by the self for transformation. In self-tracking as habit hacking, the self is seen as part of a larger network, and how this influences one's behaviour and desire.

1.2 To Track or To Quantify?

As has been shown above, the initial choices of the phenomena tracked are just as diverse as the way in which the data is presented, and the same goes for the reasons behind these choices. There is a vast amount of self trackers who use mass produced, and thus pre calibrated, devices. And there are those using methods of their own design, for highly idiosyncratic reasons. It is especially these latter users that also fall into the category of people that associate themselves with the Quantified Self and that are willing to experiment and learn from the practices of tracking itself. Taking the five styles of Neff and Nafus (2016), a further division can be made where those using store bought devices merely for self improvement, do it mainly for monitoring and evaluating, to elicit sensations, and sometimes for aesthetic curiosity. Whereas those involved in the larger practice of self quantifying pick different varieties of styles involving combinations of all five styles. There is an overlapping and an intermixing of these categories, especially in those that actively associate themselves with the larger QS movement.

Taking these two preliminary categories, we can place them on an axis, with self-tracking on the one end and self quantifying on the other end. When someone is casually picking up certain devices to self track certain aspects of one life, this would be on the self-tracking end of the axis. Whereas someone who is involved in all manners of tracking and doing so in a reflexive manner, would fall under the banner of self quantifying on this axis.

Devices on the self-tracking end of the axis, need merely provide an assistant function and are thus usable 'out of the box' and precalibrated by those that require a digital assistant.

The other end of the axis, quantified self, are those that self track in a reflexive manner, using devices and data outcomes to learn more about the idiosyncrasies of their own bodies and how the body relates and interacts with differing environments. Store bought devices can be useful, but usually alongside other devices. Devices and different data representations are experimented with, but progress along a set norm is not so much the goal of tracking, but learning what one's body is capable of. Whereas these two categories can be seen as occupying extreme ends, here too within these groups there is overlapping. The desire to self track and quantify, and the procedures and processes involved, can still have their origins, or internal guidances, in a need to fit a certain norm. And self-trackers, can still learn new things about their bodies while merely casually involved in self-tracking.

In this chapter, it was argued that although there might be a difference between casual self-tracking and more intense self quantifying practices, a closer inspection of these practices shows an overlapping of interests that make a clear distinction harder to make. In the next chapter an overview of the current post-humanistic discourse will be presented, and it will be argued that a more radical posthumanism can give further insights into the way that self-tracking, or quantifying, are part of subjectification processes.

Chapter 2 The Posthuman

This chapter will give a quick overview of the current debate on posthumanism. It will be shown how self-tracking or self quantifying, when viewed from a post-humanistic perspective, holds a potential to disrupt strict categories that fix the subject within a certain mold. From a radical posthuman perspective, this disruptive potential of certain technologies is valued as beneficial to the individual. The self is seen as embedded within a locale, and self-tracking practices allow for experimentation with the body and the way that it fits within an environment and how self and locale relate, and up to a point, co-constitute each other.

2.1 The Boundaries of the Self

The posthuman can refer to a number of perspectives, and every perspective has its own assumption about the future, and past, of what can, or even should mean ‘to be human’. This essay is not the place to provide a complete oversight of the posthuman debate, but providing some background on the debate, will be necessary, since it will be argued throughout these pages that a *methodological* or *analytic* posthumanism does not go far enough in looking beyond the human. It is a more *radical* and *critical* post human perspective that can provide answers for the contemporary complex mixture of humans and technologies, as they transgress boundaries between the subject and the object. In this chapter, first, Tamar Sharon’s cartography of the posthuman debate followed by Braidotti’s variation on the same. Both Braidotti and Sharon have written extensively about the posthuman, and both support a more radical perspective, as the best way of analysing the complex intermingling of humans and technology in the modern age. A radical posthuman perspective, according to Braidotti and Sharon, is best suited to provide answers to the global disruptive capacity of modern technology, exactly because of radical posthumanisms denial of a universal Human subject.

2.2 Four Types of Posthumanism

Sharon in her *Human Nature in an Age of Biotechnology The Case for Mediated Posthumanism* (2014) provides a mapping of the discourse that forms the posthuman landscape, that will serve as a guideline for this essay. Sharon distinguishes between four

different types of posthumanist discourse: “(..)a ‘dystopic’, a ‘liberal’, a ‘radical’ and a ‘methodological’ posthumanism” (2014,5). What makes her categorization so insightful, and useful, for the purpose of this essay, is that Sharon does not place these types along an axis that ranks them according to their celebration or condemnation of technologies, but rather on their humanist or non-humanist underpinnings (2014, 7). Dystopic and liberal posthumanist discourse, although both having a humanist underpinning, are opposing sides on a certain end of the debate, based on the humanist assumptions that inform their perspective, either overtly or more indirectly and less obvious at, first glance. Dystopian discourse, in a sense, being the most strictly humanist of the four, argues for a human essentialism and subsequently warns against the use of technologies threatening that supposed essence. Liberal posthumanist discourse is the other side of this debate, and is advocated by theorists that can be associated with transhumanism. Liberal posthumanists actively seek to change the human through technology, and their posthuman is the projected end state of ‘superhuman’ capabilities that they aim for.

Methodological and radical posthuman discourses have more non-humanist underpinnings and can, therefore, provide a perspective that is better able to analyse how technology is (co)shaping human reality. According to theorists working from these perspectives, the experience of being human is constantly being shaped and changed by how humans interact with technology. Methodological posthumanism is an attempt to provide frameworks for analyzing the relations between humans and technologies. The work of Don Ihde (1990) and Peter-Paul Verbeek (2005) in post-phenomenology are examples of this methodological posthumanism. Post-phenomenology places technology as a mediating factor between the subject, who experiences the world, and, the objects that he or she perceives and interacts with. As technologies mediate the subjects experience of the world, the world of objects is changed for the subject and therefore the subject changes, because of this experience. And while this methodological theorizing serves a good purpose for analyzing human technology relations, and potentially opens the door for a more open ended view on the subject as he or she is embedded in an environment, post phenomenology, as it were, stops theorizing once it hits the subject. In a sense, there is a barely hidden dualism still present in this strand of investigation. The subject, while open to the world, and through the mediating role of technology, is changed by interaction with the world of objects, still seems to be able to safely retreat within the confines of his or her own body. Post-phenomenology

does take seriously the role that technologies play in daily life, and the way these technologies contribute to the shaping of subjectivity and morality itself through introducing severely kinds of machinic intentionality. However the contradictions involved in this interweaving of humans and technologies and the way this changes ideas about the subject itself is left largely to the side in post-phenomenology.

Radical posthumanism, though, much like methodological posthumanism, diverges by taking seriously the role that technologies play in shaping and changing the experience that subjects have of the world and is willing to address these contradictions more thoroughly, by adopting a more fluid conception of the subject. Radical posthumanism regards the advent of new technologies as an opportunity, but the reason for this, as opposed to liberal posthumanism, is that this blurring of boundaries is a clear indication that former categories are not as stable as once presumed. The anti/post human in this perspective is thus more framed in terms of arguing against defining molds that should hold the individual, against the human as a normative convention. A fixed taxonomy of the human will always be based on what makes someone the same as someone else, whereas focusing on the flows and forces that shape and change the individual indefinitely, difference becomes primary in the processes that guide individuation. This point will be elaborated upon in our survey of Deleuzian thinking, since it is one of the most central points of his philosophy.

2.3 Braidotti's Posthumanism

In Sharon's categorization, Braidotti's philosophy belongs to the radical posthuman perspective, meaning that for Braidotti the subject is not only under the influence of processes of subjectification, but that even the site of subjectivity that constitutes the subject is an ever-changing entity. This subject is not postmodern, thus not anti-foundationalist, but "(...) materialist and vitalist, embodied and embedded" (2014, 51). Braidotti's own categorization of the posthuman is threefold: (1) a reactive form, an(2) analytic one, and her own (3)critical posthumanism (2014, 38). Much like Sharon, Braidotti's indexation does not rely on the celebration or condemnation of technologies in the ways that these interact, and are being interacted with, in modern life. For Braidotti what matters most, is how far theorists are willing to let go of a humanist subject that interacts with the world through technology, and accept a more fluid idea of subjectivity. Comparing her types with Sharon's, the reactive

form comes close to de dystopian thinkers of Sharon, where the goal is to protect as much of the human as is possible in this age of technological saturation. Braidotti's category of analytic posthumanism is similar to Sharon's methodological posthumanism, as they both accept the role of technology as changing the human experience. The radical, or critical, posthuman theorists are those who are willing to go far enough to allow for a subject that can change, adapt and seek out new ways of human expression, as it evolves and interacts with a dynamic environment. But as Braidotti states, it is exactly in "(..) a theory of subjectivity as both materialism and relational, " 'nature-cultural' and self-organizing" (2014, 52) that we can find the tools to protect this nomadic subject in these complex and contradictory times. And it is exactly in Deleuze and Guattari that we find concepts that do justice to this complexity and contradiction, without relying on a dialectic of opposition which should theoretically result in a synthesis of these opposites. Deleuze and Guattari allow for a theorizing in difference for itself by giving difference primacy over identity. This last point will be elaborated upon in chapter three.

2.4 Deleuze, Guattari and The Posthuman

Deleuze and Guattari thus have had a great influence on much theorizing along this radical line of posthuman discourse. Self-tracking, when viewed from a philosophy inspired by Deleuze and Guattari, can now be framed as a form of self expression that challenges certain normative stances on what it means to be human. Instead of taking the more liberal, or transhumanist, view that the human is something that has to be transcended, radical posthumanism will enable a more fluid, nomadic take on the subject, as she or he is expressing his or her own difference, through interaction with technologies and the environment.

Chapter 3 Thinking Beyond the Subject: Philosophies of Subjectification

In the first chapter several techniques and practices of self-tracking were introduced. The second chapter argued that a post-humanistic perspective on the subject, a perspective that views the subject as an effect of subjectification processes, can provide insights into the ways that self-tracking practices are part of, or are themselves, processes of subjectification. This chapter will supply some further background on Deleuze and Guattari, and other relevant thinkers, either to the work of Deleuze and Guattari, or authors that can assist in a post-humanistic analysis of self-tracking, which will be undertaken in chapter four. Nietzsche has had a great influence on Deleuze's philosophy, but in his own right can add additional perspectives on the processes that are involved in self-tracking practices. Foucault, as a contemporary of Deleuze and Guattari, will provide further insight in certain processes of subjectification.

3.1 Gilles Deleuze and Felix Guattari: a Short Introduction

Deleuze as a philosopher belongs to post structuralist philosophy, together with, for example, thinkers such Michel Foucault and Jacques Derrida. This was not a self-styled group of thinkers, precisely for the reason that they theorized against placing rigid boundaries and creating closed systems. However, they shared a way of looking at life, namely, to see *being* as a process of *becoming*. Post structuralist thought, thus examines the way that the structures and systems that make up life, whether they be organisms, political systems or languages, inform and create each other. This is a process of constant overflowing and mutation, and an evolution on both the material and the incorporeal levels. The human subject is therefore also a system amongst many, and is open to change and influence from all sides.

Deleuze first wrote a series of monographs on other philosophers, such as Spinoza (1983), Kant (2008) and Nietzsche (1988) before writing *Difference and Repetition* in which he states, in the preface to the english edition, it is "(...) the first book in which I tried to 'do

philosophy” (1994, xiii). *Difference and Repetition* is a long and complex examination of how repetition is not repetition of the same but repetition of the different. Difference, argues Deleuze, comes before identity. Shortly after it was published, Deleuze and Guattari wrote their first work together, *Anti-oedipus* (2009). Guattari was a psychoanalyst and had studied under Jacques Lacan. He grew dissatisfied with Lacan’s views though and became part of the antipsychiatry movement. In Deleuze, he found a philosopher that shared his view on the individual as created, and always in a process of becoming, as opposed to a pre-given individual.

The analysis of the variegated connections and couplings that spring forth from difference, is central to Deleuze and Guattari’s project, *Capitalism and Schizophrenia* (2009, 2015). Consisting of two parts, *Anti-Oedipus* (2009) and *A Thousand Plateaus* (2015), originally published in 1972 and 1980, it spans an enormous range of topics across the scientific and philosophical field. In the preface to the first part, *Anti-Oedipus*, Michel Foucault describes the work as “(..) the first book of ethics to be written in France in quite a long time”(xiii) and an “*Introduction to the Non-Fascist Life*” (xiii). Foucault refers here to ‘micro fascisms’, the little fascisms in one’s own head, that cause a love for power, and a desire for “(..) the very thing that dominates and exploits us” (Deleuze and Guattari 2009, xiii). The observation that people end up desiring systems and structures that exploit them and diminish their own control, is what drives the analysis of desire undertaken in *Anti-Oedipus*. The way that Deleuze and Guattari view desire can provide useful insights in the reasons that people engage in self-tracking. Desire, for Deleuze and Guattari, is a creative process, but, just as they struggle in *Anti-Oedipus*, with the apparent desire of people for systems that oppress them the desire to improve one’s health can be critically analysed for its origins.

One way to undertake such an analysis is through schizoanalysis. Schizoanalysis, as developed by Deleuze and Guattari in *Anti-Oedipus*, operates from the idea that there is no standard person, no individual that is pre given. Instead, schizoanalysis works with moving parts and multiplicities and sees life as intricate and complicated interaction of all kinds of different systems. The schizo, in this analysis, is not seen as the psychiatric type of the schizophrenic, but points towards “schizzes”. Schizzes are the parts and breaks and ruptures that make up a moving and evolving whole. This refers back to the idea of difference being repeated, and being primary to identity. For, it is in the processes that merely seem to repeat,

that difference is found, and identity only becomes possible through difference, not by repetition of the same. It is the AND that defines anything. “Even if there are only two terms, there is an AND between the two, which is neither the one nor the other, nor the one which becomes the other, but which constitutes a multiplicity” (Deleuze 2002 ,26). In this manner AND AND AND is what defines everything, since it is in the connections that we find how something relates to something else, and thus where in the world it is embedded, and in what way something or someone is embodied. Take anything out of its context and it has the potential to become something else.¹

3.2 Dynamic Systems

By creating minimal and dynamic systems Deleuze and Guattari seek a way to stave off both “(..) absolute deterritorialization on the one hand and reactive repetition of the already-ordered on the other” (Parr 2005, 5). *Absolute deterritorialization* is to completely loose any subjectivity and embrace the chaos of the cosmos as one's own. But to not hold any territory, is to be nowhere. To live life is to structure and systemize, to make certain claims on things. However, to systemize everything is to be merely *reactive* and just repeat what is given (by society) and already ordered by others. One then merely follows the tracks, as they are laid out in front of you. So in this instance, once again, one loses subjectivity, but now to a mass culture that decides for you. By viewing life as a process of making and unmaking connections, Deleuze's writings can be seen as trying to occupy a place in between these extremes. By facing both sides, the wide open and chaotic side of possibilities on the one side, and on the other side the systems and stratified structures, a subject is seen to appear that is able to adapt and change to the forces, flows and fluxes that make up life.

Using Deleuze and Guattari's philosophical frameworks, the individual can be ‘opened up’; further, by taking serious the idea that one evolves over time, and thus changes all the time, the variegated flux of alternating influences that shape and make up the

¹ This point is also where Deleuze and Guattari's post-structuralism differs from postmodernism, such as that of Baudrillard. Baudrillard, in *Simulacra and Simulation* (1981), argues against any kind of materialism. For Baudrillard, the *postmodern* condition is one where everything is simulation and copy, and there is no reference to anything ‘true’ anymore, the connection to the original essence is lost. Deleuze and Guattari grant reality to all entities, corporeal and incorporeal, and thus are not anti materialistic. This move is supported by Deleuze's reversal of Platonism, whereby copy and simulacra do differ from an original, but since Deleuze's ontology is one of difference being primary to identity, this does not make either copy or simulacrum less real. More on reality and virtuality in 4.1 of this essay. For more on Deleuze's reversal of Platonism, see the essay *The simulacrum and Ancient Philosophy in Logic of Sense* (2004, 263)

individual can be investigated. The self that measures, tracks and hopes to learn and transform that same self is the locus of a complex network. What perhaps seems to begin with a desire and a device, is actually the middle of a complex operation of shaping forces. A Deleuzian/Guattarian analysis can provide the tools necessary to open up the individual, and trace the lines that construct the individual in order to find the point of their origination.

3.3 Rhizome 1 :Rhizomatic versus Arborescent

Post-structuralist thought in general is a critique of identity and representation. The result of such a thinking, is a move in perspective from the subject, to theories of subjectivity and processes of subjectification. The subject becomes an effect of processes that involve both the individual and the interactions the individual has with other individuals, objects and concepts and ideas in the world that he or she is a part of. From this framing of the subject as an effect, grows a genetic and evolutionary account of thought and subjectivity itself. A corollary of this, is an obfuscating of clear boundaries, both spatial and temporal. Subsequently, references to the middle, and never a clear beginning or end, are abound in Deleuze's and Guattari's writing. In his monograph "Spinoza: Practical Philosophy" (1988), Deleuze describes his own experience with reading Spinoza as follows: "One arrives in the middle of Spinoza, one is sucked up. Drawn into the system or the composition" (129), a dictum which one could easily apply to Deleuze's own writings. In *A Thousand Plateaus*, written by Deleuze in collaboration with Guattari, they developed the concept of the Rhizome: "A rhizome has no beginning or end; it is always in the middle, between things, interbeing, *intermezzo*." (Deleuze & Guattari 1987, 26). The rhizome is the opposite of what Deleuze & Guattari call "tree logic" (1987, 11), which is an arborescent way of thinking in genealogies and hierarchies that divide everything in clear distinct entities and lines, a structuring of thought where one beliefs to be able to trace origins back to a beginning.

The rhizome is meant to show, that any taxonomy trying to statically fix being, or beings, is bound to fail the moment that one takes the idea of evolution seriously. Evolution on a biological scale is a long and slow process, but it clearly shows that life is about adaptation. The individual cannot serve as a fundamental basis for identity, it is derivative of processes that connect, disconnect, and reconnect *difference*. However, a stabilizing factor does play a role in this process. Individuation of species, for instance, happens between two

levels, there is the sorting of natural selection, and then there is a closing of the gene pool that creates an isolation of the species.² A tree-like image of this process will trace this to a common beginning, and eventually end up with the primordial soup. And while this beginning is not at question here, the processes that go from that beginning to the present, in a rigid tree like structure will have a tendency towards a presumed purpose, or a teleological endpoint, a purpose, or goal-orientation, that rhizome does not have. The closing of the gene pool that has a species of animal as an effect, is an effect itself of another process. Otherwise, identity would be primary to difference and not the other way around. Just as with species, the subject is an effect of complex processes of difference. To make this more clear, the concepts of the virtual and the actual, as they make up the real, in Deleuze's ontology will have to be explained.

3.4 Rhizome 2: The Virtual and the Actual; On the Univocity of Being

Self-tracking is inherently about discovery and improvement. To use a device for self discovery, is in a certain sense to accept both the limits of one's own awareness and the potential ability to increase that awareness. By using a device, perception and sense of an event can be compacted and stored. However, technology changes perception in a specific way. Think of taking a picture. Depending on the subject of the photograph, a certain lens is chosen that will allow light to bend a specific way. If the subject is far away, a zoom lens is used to bring the subject closer, but it slightly distorts the image. In just such a way, different technologies, when used, highlight certain aspects of an event, and leave out others in their own specific ways.

When choosing a technology to learn something new about oneself, this technology can alter the subject of inquiry in a specific way. The device will record using certain sensors, that have a certain sensitivity in one range, while not picking up signals in another range. The data that this produces is compacted and stored, and is thus slightly altered. What is brought to the attention of the user is, thus, something that has been actualized by the assemblage of user and technology and the process that is the specific way the device is used. The reality of

² For more on individuation in species see Manuel De Landa, (2013). *Intensive science and virtual philosophy*, specifically p.33, and onwards. Delanda applies Deleuze's philosophy to an approach for philosophy of science, to argue for knowledge without essence.

the event that has taken place is a convergence of several events and phenomena. These phenomena happen in both the material and the nonmaterial sense. For instance, through tracking, an awareness has expanded one's sense of one's own body and how the body reacts to certain stimuli. Deleuze's use of the notions of the virtual and the actual can help one understand these processes as they take place.

However, in order to put the notions of the virtual and actual as instantiations of the real in the right perspective, it is very important to keep in mind Deleuze's insistence on a univocity of being. Although this is a very metaphysical concept, it can give insight in how different ideas and concepts shape the lives of people. "The univocity of Being does not mean that there is one and the same Being; on the contrary, beings are multiple and different, they are always produced by a disjunctive synthesis, and they themselves are disjointed and divergent (..)" (Deleuze 2004, 185). To have a univocity of being is to have an immanent world and to deny a world of essences behind a world of appearances. If Being is made of one substance that expresses itself in multiple ways, reality is then made up of infinite expressions of life, Being might be of the same substance, but the way it expresses itself, is in difference. The real, or reality, consists of both the virtual and the actual. The virtual, however, is not merely a repository of potential, waiting to be actualized into the real, or to be created within reality. In a univocity of being, there is no hierarchy of being. If actual things were merely those things that are real, after being actualized from the virtual, then the virtual would be no more than another world of essences. "The actualization of the virtual is singularity whereas the actual itself is individuality constituted" (Deleuze 2002, 113). A singularity, both as a mathematical concept and in the way Deleuze uses it, is a fixed point that guides flows. It is topologically fixed, though, and singularities relate to each other through vectorisations. Think of a singularity as a buoy in the water, or a series of singularities as a series of buoys constituting a 'road' on the water between which a boat can sail. The boat, or rather the captain steering it, might seem free to leave the set out a trail, but will then run the risk of hitting a sand bank and getting stuck, when safe ways have are not followed. In the virtual anything is possible, but to become actualized within the real, certain concessions need to be made. Biology and gravity, but even social convention, have certain expectations, that will guide the actualization of events. The water of the ocean shifts and turns though, and so does the sand underneath, so the buoys guide the most probable and perhaps safest way, but not the only way.

While in more contemporary usage the term virtual refers to a digital space, in Deleuzian terms, it refers to a plane of immanence. As was described above, an ontology of univocity, is one where there is no hierarchy, no transcendence. To transcend is to be above, or beyond, while if one is immanent, one remains within. This way of reasoning has a direct relation to the rhizome, which is also a root system, without a clear direction. As it grows it loops back and even in on itself, creating new offshoots, or dead ends all within its own area. What becomes more clear, when introducing the virtual and the actual, in relation to the rhizome, is that the concept is directly aimed at removing ideas of *telos* in arborecents schema's. *Telos* is Greek for purpose, and teleological thinking, or arborescent thinking is conceptualizing in terms of goals or purposes. A tree starts as a seed. Its roots go down beneath the surface, in order to get food from the ground, and form a balancing support for the tree, above ground. The visible tree, grows upwards, towards the sun, and its goal seems to be to reach as much of the sky as it can. The rhizome has none of these goals. It just *is*, immanent to itself, growing in all directions, experimenting whichever way it can.

Experimenting with one's virtual body, the image of the body, on the plane of immanence, has as a result a *Body without Organs*.

3.5 Body Without Organs

The Body without Organs first appears in Deleuze's *Logic of Sense* (2015), and is taken from Antonin Artaud, a European avant garde poet, essayist and theater director. Deleuze and Guattari use the term to critically question and challenge the way that a body is organ-ized, and in what ways it can be dis-organ-ized, opening up new forms of organ-ization (Holland 2005, 28). There is a number of things that need to be taken into account to fully understand the way in which Deleuze and Guattari consider the body. First, there is the distinction between the virtual and the actual as described above. What this way of viewing reality allows is that incorporeal entities have just as much reality as corporeal ones. A body therefore can just as easily refer to a body of work, a body of water, or an institution as an organizing social body. The physical body is but a part of who you are. Secondly it is useful here to keep in mind Henri Bergson's idea of the body as an image. For Bergson, an image does not exist in a body or mind. Mind and body are images. If an image is a representation of an actual object existing within a mind, the reality of this is that both the virtual idea and

the actual object are present when seeing or remembering the object. Reality, as lived and experienced, is a complex layering of memory, imagination, perceiving and apprehending. The Body without Organs (BwO) is not so much the body as imagined by the mind, but the unorganized unstratified potentialities that the body is capable of. The body represents Spinoza's famous dictum "(..) we do not know what a body can do" (Deleuze 1988,17) , a phrase that frequently returns in Deleuze's work over the decades. The BwO then, is in between; it is both the antidote for the body as proposed by marketing companies to possess if one wants to be successful and the body that one has. The BwO is the potential that one holds as a body in tune with its surroundings, and the potential of losing all connections with the actual and losing oneself in the virtual. The BwO is a concept to explore and seek out the limits of possession and alienation one can feel with one's body. The BwO will be further elaborated on in chapter 4.2.

3.6 Organisms, Mechanisms and Machines

A further implication of the aborescent schema is, that when traces are followed neatly, however complex, an origin can be revealed as if the universe were a mechanism, running on a clear clockwork. Ideas of organisms running on internal clocks works have followed from certain Enlightenment ideas about the universe, for instance in Descartes schema's of the universe.³ In Deleuze and Guattari, we find an interesting adaptation of this idea, delivering a tension between machines and organisms. The aforementioned rhizome can serve here as a good starting point. Instead of tracing something to an origin, and creating a mechanical schema, the machine, as it is used by Deleuze and Guattari, is something that can make and unmake connections and is, therefore, never fully the same.

Machines as described in Deleuze and Guattari's framework, are more akin to Rube Goldberg's⁴ contraptions, endlessly combining chains of apparatuses, usually repurposed to

³ Descartes as a thinker is a rationalist, and divides the world into *res extensa* and *res cogitans*, or the material substance and the thinking substance, with God as the thirds substance holding everything together. As an Enlightenment thinker and rationalist, Descartes, believed that almost everything can be explained mechanistically. By separating mind and body so strictly, animals for Descartes had neither rationality or feelings, since they were pure matter. The universe and all material things for Descartes, could, in the end be explained as if it were a giant clockwork.

⁴ Rube Goldberg (1883-1970) was an American cartoonist mostly known for his drawings of extremely intricate and complex machines, made from regular items, that despite their complexity, served rather humble, or very often even useless, purposes. For instance a contraption made from, amongst other things, a parrot, sticks, billiard balls, a bookshelf, filled with books, a harmonica, several feet of string, a rock, several

fit the current assemblage. As described in *Anti-Oedipus*: “Producing-machines, desiring-machines everywhere, schizophrenic machines, all of species of life: the self and the non-self, outside and inside, no longer have any meaning whatsoever” (Deleuze & Guattari 2009, 2). Thus, the machine stands for a contraption that can be taken apart, and rebuilt, it is neither material or immaterial, and Deleuze and Guattari insist that it is not mere metaphor. And while the choice for machine in Deleuze and Guattari’s vocabulary might seem curious, or even contradictory at first with their rhizomatic, or ‘anti-arborescent’ thinking, it is carefully chosen to complement and contradict the idea of the organism. A machine is able to make connections in different ways, and several machines can form an assemblage, or different assemblages at different times. The concept of the organism, however implies an individual identity that is far more at question for Deleuze and Guattari. On a material and microscopic level the human organism is teeming with boundary breaking assemblages: Skin, mouth, and intestines are riddled with bacteria. All in numerous varieties of cooperation, attacking and defending. On the immaterial plane the complexities multiply even further: “The subject is a transpersonal abstract machine, a set of strategies operating in nature and spread throughout the social field” (Massumi 1992, 26). As was argued above, the difference between the virtual and the actual is central to Deleuze. The idea of the organism as a concept with clear boundaries between itself and the world is an abstraction, living within the mind, the virtual. The moment it becomes actualised, these boundaries become ethereal; the organism has now become embedded with an environment with which it has a reciprocal and codetermining relation. Todd May, a political philosopher, scholar and writer on post structuralism, phrases the differences and relations between mechanisms and machines as follows in his book *Gilles Deleuze: An Introduction*: “Our perceptions may encounter mechanisms, but our thought must penetrate those mechanisms in order to discover the machines within them” (2005, 123). Mechanisms are, thus, the dogmatic frames and images of thought. These mechanisms make possible thinking and perception on auto-pilot and can help an individual steer through the chaos of life. Beneath these mechanisms operate machines though, and machines are able to make and unmake connections and thus can change. By choosing the image of the machine, Deleuze and Guattari very carefully avoid falling back into a hidden dualism. For if they would merely postulate that mechanisms steer

pulleys and a lightswitch, and its purpose is to squeeze out toothpaste from a tube. For more information see: www.rubegoldberg.com/

our thinking, then this opens a door to essentialist dogma's, or a postulating of a supposed true being beneath perceived reality. Placing machines, instead of, for instance, an essence, underneath these mechanisms, makes possible another layer of becoming, instead of referring to another layer of being. Whatever is beneath are behind the mechanisms, thus remains open to change. Recalling Naff and Nefus (2016) styles of self-tracking from chapter 1.1, the style of habit hacking comes to mind. Through analyzing the different habits, or mechanisms, one is able to uncover the machines beneath them, and to see what new connections are possible, in order to change deep seated convictions.

Brian Massumi, the translator of *A Thousand Plateaus* (2013) from the French into English wrote an accompanying book, *A User's Guide to Capitalism and Schizophrenia Deviations from Deleuze and Guattari* (1999). In a more direct way than Deleuze and Guattari usually do, he describes the subject as follows: "The subject is not psychological, it is not contained in one mind. It is in the interactions *between* people" (1994, 26). This does not mean that the subject is merely interpersonal, but that the area in which the subject emerges, is made up from influences from all sides. Genes produce, but also mutate; societies have consistency and a culture, up to a point but are in constant states of flux too. Every new instance has its own connections, made up of its own speeds and slowness.

3.7 Schizoanalysis: Deterritorialization and Reterritorialization

One of the most important lessons one can take from the two volumes of *Capitalism and Schizophrenia* (2009, 2015) is that Deleuze and Guattari attempt to destabilize concepts that most people take for granted through processes of deterritorialization and subsequent reterritorialization. The first volume, *Anti-Oedipus* (2009), argues that the nuclear family cannot be taken for granted and it is through a coupling of Marx, Freud and Nietzsche that Deleuze and Guattari conceptualize a materialist semiotics. By utilizing the three great materialists of the nineteenth century, Deleuze and Guattari argue that systems of capitalism, psychoanalysis and the nuclear family, all feed into each other in order to create the modern subject. The subject now fluctuates between the two extreme poles of paranoia and schizophrenia in the social and mental ecology that these systems create. The reasons that these systems fit together in such a way that Capitalism, psychoanalysis and the nuclear family complement each other, and make the two extreme poles of schizophrenia and

paranoia the the boundaries for the modern subject, are complex, and the subject of the almost 400 pages of *Anti-oedipus*(2009). For the purpose of this essay is suffices that these systems all involve the production of desire, and that the desire that is most prominently produced under the reign of these systems, fluctuates between schizophrenia and paranoia. For Deleuze and Guattari the unconscious is creative and active, and desire is an active force. Desire is the force of life seeking to express itself in various ways. In a rather biting passage in *Anti-Oedipus*, the confining mold for the subject created by the myth of Oedipus, coupled with the individualization of the family, under capitalism is taken apart: “I take a woman other than my sister in order to constitute the differentiated base of a new triangle whose inverted vertex will be my child-which is called surmounting Oedipus, but reproducing it as well, transmitting it rather than dying all alone, incestuous, homosexual, and a zombie.” (Deleuze & Guattari 2009, 71). What this passage makes clear is that, according to Deleuze and Guattari, modern society leaves little room for those that do not find a partner of the other sex and choose then to build a family with them. Nonconformity is regarded as abnormal; abnormality is framed as ‘in need of diagnosis’, as a disorder that needs to be fixed.

Freeing desire from instinctual and habitual determination is the entire goal of schizoanalysis. However, experimenting with this comes with it’s own dangers. Once desire is freed, it can be captured by repressive social representations. It is this process of deterritorialization and reterritorialization that is central fo schizoanalysis and the entire project of *Capitalism and Schizophrenia* (2009, 2013). In the second volume *A Thousand Plateaus* (2015) Deleuze and Guattari apply this the constant deterritorialization and reterritorialization process and give numerous examples of it. One of the most direct examples is how a stick in a hand, is a deterritorialized tree branch, reterritorialized as weapon. This also shows how deterritorialization and reterritorialization are constant processes and how just freeing one’s desire is not the end of a process. Being as becoming is a process with no end. The concepts of deterritorialization and reterritorialization show how friction and appropriation are a constant process and how process is at the core of any concept. A philosophy of difference is a philosophy of process.

As a concept becomes *deterritorialized*, becomes an other’s, or from a different perspective actually one’s own, there will always be a force that will seek to *reterritorialize* the newly became concept. So as self-trackers accumulate data about themselves and, in this way, experiment with devices seeking out the boundaries of the possible, companies involved

and interested in big-data collection will seek to appropriate these methods and find a way to make them adaptable (and thus marketable and saleable) to many different people. More in this process, and how it can result in a form of ‘soft resistance’ will be discussed in chapter 4.2.

Finding new expressions of oneself, through measuring and data collection is a process whereby the senses are seen as in a process of giving and taking with an environment that is, by default, not a stable one. In this process of negotiation, the sense of the body is seen as a process itself. Attention can be paid to different aspects of how the body relates and reacts to different stimuli, and how the nerve system is an intricate system, that is able to learn and adapt. The body becomes a site of learning, precisely because it is taken as an object of study.

3.8 Becoming Imperceptible and Making Oneself a Body Without Organs

Chapter 6 of *A Thousand Plateaus* (2013) bears the title “November 28, 1947: How do you Make Yourself a Body without Organs?” (Deleuze and Guattari, 173). The answer is: you already have one, or even several. Throughout the remainder of this essay, I will analyse the forces that combine to create a subject. It will be argued, that the subject is created, and that a dualistic view, where the subject is on one end, and the world on the other, does not do justice to the intricate ways that an individual is connected to the world. Furthermore technology adds to the obfuscation of boundaries that separate a person from the world. Amongst several other concepts, the Body without Organs is introduced as an answer to reductive over-organizing that leaves the individual as nothing more than a accumulation of scientific results. One of the main assumptions of this essay is that it is within the *in-between* that anything, or more precisely, everything happens. The BwO is virtual, but is affected by the actual, and the actual is affected by the BwO.

Between the virtual and the actual, reality is created. Thinking, according to Deleuze, transforms life. Thinking and acting are at times then, not that far apart. As all of life is in a process of becoming, it is on the move. In *A Thousand Plateaus* (2013), Deleuze and Guattari, state the following: “Becoming is a verb with a consistency all its own: it does not reduce to, or lead back to, ‘appearing,’ ‘being,’ ‘equalling,’ or ‘producing’” (279). To be

affected, then, is to *Become*. But not only do people *Become*, everything is in the process and the act of becoming. In these ways, blocks of becoming are created, influencing each other. This happens in different tempos, at different rhythms, and leave different impressions. “A thing, an animal, a person are now only definable by movements and rests, speeds and slownesses (*longitude*) and by affects, intensities (*latitude*)” (Deleuze 2006 ,69). Now, the body becomes definable by the sum total of its longitude, the material elements under given relations of movement, and its latitude, the sum total of how much the body can let itself be affected. Power is now the power to change, to adapt and to make new connections. However, go too far, and one Becomes-imperceptible. An assemblage that has elements of a society, technological devices, and an individual can leave the individual *reactive*, swept up by blocks of becoming. A static individual that cannot and will not, allow change, however, does not increase connections, and becomes powerless again.

On last example can illustrate how difference can be primary to identity. In *Spinoza, practical philosophy* (1988) Deleuze describes the process of subjectification by comparing a plow horse (draft horse) and a racehorse and an ox by their affects, or their capacity to be affected (124). The draft horse has more effects in common with the ox, than with the race horse. both the plow horse’s longitude, the way it moves, and has connections with the earth, and the plow horse’s latitude, the way it affects and is affected by what it does, places it in a block of becoming with the ox.

3.9 Thinking Beyond the Human: Foucault and Nietzsche

While Foucault and Nietzsche are unique thinkers in their own right, there is an underlying theme that unites them, namely: to think beyond the human condition. Foucault famously declared “the death of man” in *The Order of Things*(2006a). Nietzsche used the idea of the Overman, the *Ubermensch* as the human being that should overcome the human being as he is now.

While the main argument of this essay relies on Deleuzian, and Guattarian, concepts, these other two thinkers will make appearances throughout the next chapter, to strengthen the main line of argument, as Foucault and Nietzsche in their own way, add to the post-humanistic perspective.

The next subchapter will introduce the notions of active and reactive force, as first introduced by Nietzsche, so that these can inform the analyses undertaken in chapter 4.

3.10 Nietzsche: Active and Reactive

The notion of force as employed by Deleuze relies on his reading of Nietzsche. *Nietzsche and philosophy* (Deleuze, 1983) is a comprehensive oversight of Nietzsche's philosophy and gives insight into how the notion of active and reactive forces, as developed by Nietzsche, are employed in much of Deleuze's own later writings. Power, or forces, that interact, produce relations, but these relations are not inherent within the power, meaning that the relations produced do not have a seed of origin within the power. That which is produced is novel, therefore, inherently not entirely predictable. One of the most insightful contributions of Nietzsche on the way that culture sweeps up a person is in his analyses of the interaction that takes place, between *active* and *reactive forces*.

In Nietzsche, Deleuze finds a philosopher of forces and immanence. Nietzsche's conception of active and reactive forces, and the eternal return are used by Deleuze as concepts to analyze subject formation. Through Nietzsche, we begin to see life as an interplay between forces, but it is especially Nietzsche's distinction between active and reactive forces that will be of value to the analysis of the flow of forces that surround and shape the self that is involved in self-tracking. For Nietzsche, the active and reactive forces are in a struggle, whereby the reactive forces, through nihilism, end up depriving the active forces of their power. Deleuze does not argue against this, but is very careful to take from Nietzsche the analysis of the interplay between these forces, without, attributing the origins of this directly to nihilism. What Nietzsche's concepts, in the hands of Deleuze, can contribute to the analysis of self-tracking, is the way in which power can be transformed and transferred between different subjects, but also between assemblages of humans and technologies or institutions.

As was shown above, when someone picks up a device to practice self-tracking activities, there are many different factors at play. Not only are there outside forces weighing on the decisions of individuals, such as marketing and social pressure, but also all of these forces have left a mark on the subject in such a way that decision-making has been

transformed and shaped, desire has been influenced and the power of institutions has been internalized, folded up inside the subject.

In Nietzsche's perspective, active forces seek to enhance themselves through affirmation through a process termed Will to Power, and reactive forces react to this, by trying to separate the active forces from their power. Reactive forces can, thus, become powerful, but only in a manner that is a reaction to something, never on their own accord. It is this nihilism that, according to Nietzsche, drives humanity because the reactive forces do not seek their own expression but merely resent that another seeks to express oneself. What makes this analysis so relevant for self-tracking is that for Nietzsche and Deleuze both, life is a power of singularization, of differentiation, and phenomena; organisms, societies and institutions are all expressions of forces seeking expressions. There is a univocity present, because although the material world might inform a lot of expressions of life itself, the influences of immaterial forces, is just as important. An assemblage that consists of a human, a device, and a society placing certain expectations on an individual can now be seen as an expression of the coming together of different forces. Having made the distinction between active and reactive forces, we can examine this assemblage in such a manner that, even though a conscious decision has been made by a user to pick a certain device and choose a certain practice, these might turn out to have been *reactive* decisions. Or, using the concept introduced earlier, a paranoid or schizoid origin might be revealed.

Chapter 4 Self-tracking and Subjectification

In the first chapter several ways to self track were introduced, and a distinction was made between those that self-track more casually and those that are more intimately involved in tracking the self, and enter an area of self quantification. In the second and third chapters, the relations between the posthuman, and Deleuze and Guattari's philosophy were analysed. It was argued that Deleuze and Guattari's perspective can serve as a better understanding of the subjectivation processes that make up practices of self-tracking and self quantification. This chapter will work more closely with Deleuze and Guattari's concepts, and apply them to unravel the different lines and forces that come together in the subject, as he or she is part of a society, and is involved in self-tracking practices. Since the subject, in post structuralist thought, and in Deleuze and Guattari's philosophy especially, is to a large extent inseparable from his or her surroundings, this chapter will not stop at the subject, but move forward to looking at the forces that surround the individual as they come together in the individual.

A number of steps will be undertaken to show how a web of conflicting forces is not merely surrounding the individual subject but actually is the basis for subjectivity itself. As this chapter moves on, the focus will go more from the subject as created by forces, to the forces that are involved in this process. However throughout the rest of this essay, it will be argued, that concepts that make a clear inside versus outside distinction concerning the individual, will be replaced by concepts that do not make this distinction so clearly. Interiority and exteriority will be treated, as this chapter progresses, more and more in a relative manner. The underpinnings for this line of argumentation will be made clear in the sub chapters throughout the fourth chapter.

4.1 Sailing on the Plane of Immanence

In the previous chapter, the relation of the virtual and the actual were described using the image of a waterway, created by placing buoys in the water. When a person self tracks, as the virtual is actualized and creates a reality, then buoys are followed and a track is adhered

to. The main waterway, can be the safest, and is perhaps even the best way. However, not all the boats are the same. Some can sail more shallow depths, while others need the middle of the waterway. As a device is chosen, a direction is chosen and sometimes even a speed is set. A program is uploaded or selected. Today, perhaps it is interval training; slowness and speed consecutively follow each other. While a device can be seen as a singularity, a fixed-state device, it is part of a larger assemblage: “We can say that there is assemblage of desire each time that there are produced, in a field of immanence, or on a plane of consistence, *continuums of intensities, combinations of fluxes, emission of particles at variable speeds*” (Deleuze 2002,73). An assemblage of desire is, thus, anything that desires something. If your assemblage seems to consist of you and your fitbit, only the actual is taken into account. From the virtual come all the expectations you bring, but also the flows that have created these expectations. The need to feel healthy has, perhaps, long been reached, and the mechanism of your thinking, the image of thought that defines your picture of health, is perhaps an unachievable goal heavily influenced by marketing campaigns and Hollywood movies. The device itself has its own virtual parts in the assemblage. While it might have been conceived with the most charitable convictions, a company runs on profits and simply needs to sell to stay in business.

Desire is flowing through the assemblage. First there is a desire to be healthy, to be fit, perhaps to *fit in*. A regime is chosen, say running, and a device is selected. Changes start happening. The body gets fitter, waking up becomes easier, sleeping gets better, compliments are received. The new desire that is produced through these different assemblages, the work out assemblage, the workplace assemblage, might be to attain even higher goals. At first it was running to lose weight; now perhaps training for a marathon is within the horizon of possibilities. It is within the *event* that has been created through *assemblages* that *desires* are created. The lines and tracks that are followed have, in part, been laid down by the singularities, the devices, and in part in the interactions that take place between these as attractors and the subjects who follow them.

4.2 Coding on the Plane of Immanence: The Body Without Organs

Chapter 4.1 posited a conception of reality that suggests that the real is made up of both the virtual and the actual. The concepts of the real and the actual make it possible to

grant concepts and ideas within the virtual, just as much reality as material objects. By making reality consist of both the virtual and the real, though, the material reality of objects is not denied. It is in this context, that Deleuze and Guattari's (in)famous concept of the Body without Organs is presented. The Body without Organs is the virtual body, that corresponds with the actual material body. The BwO is thus real, and yet it also represents the potential and the possible, or even the material impossible.

By using the BwO to track the self in the self tracker, the different series and elements that constitute an assemblage can be allowed to reveal themselves. If, for instance, the action is tracking steps, and the goal is to be healthy, the BwO allows us to see where the parts of this particular assemblage came from. While the self tracker runs, and the device measures, all sorts of assemblages contribute. The definition of healthy has been decided upon by a number of people and has been actualized in a number on a scale. However, the need to feel healthy must be examined itself. It can be partially a need to 'fit in', to belong to a group of people. Furthermore, when is healthy, healthy enough? And as the device keeps triggering feelings of accomplishment through carefully chosen graphics that are designed to elicit a neuron response that delivers serotonin and dopamine to the brain, endorphins are released to combat muscle aches (Kolata, 2008). A whole new assemblage is created, whereby the body, the device and the app, and feelings of accomplishment, partially through societal appreciation for becoming a fitter body, are now chemically linked. The entire production of desire with the subject at the centre, a subject who simply set with a desire and a device, has transformed and transfigured the subject, through several assemblages.

What the concept of the BwO reveals is the intricate linkage of the corporeal and the incorporeal as expressions of the same substance of life. Assemblages cover both the physical and the nonphysical. Chemicals in the body contribute by making one feel a certain way, but the sense of one's body contributes in its own manner. One is a site of subjectivity, embodied and embedded, a complex changing mixture of inside and outside forces. The BwO as a site within the virtual is something that one can programme *on*. The BwO is created and can serve as a site of resistance. In this context, the BwO can be connected to what Nafus and Sherman (2014) have called the "soft resistance" of certain self trackers and QS'ers. The act of collecting data can become an act of resistance to big-data collection by companies in certain cases, exactly because the data that is collected only makes sense to the individual who has collected it. What we see here is an example of schizophrenic deterritorialization, data

collection and creation for the sake of creation, of exploring one's connections with the world. In contrast, big-data companies have a paranoid reaction of reterritorialization, renaturalizing the data to make it universal again. Thinking back on Braidotti's description of the posthumanist subject we again find the importance of location to the positing of the subject. Braidotti's embedded and embodied subject is "(...)firmly located somewhere, according to the feminist 'politics of location'" (2014, 51).

Nafus and Sherman have been conducting ethnographic research from within the QS movement since 2011 and note that a "(...)mixing of technical, commercial, community, and personal work indeed is par for the course within the Quantified Self movement" (2014, 4). It is through this overlapping of interests, that Nafus and Sherman (2014) speak of a 'soft resistance' when it comes to data collection. The resistance is due to the 'big data' collection being done by corporations or governments. Soft resistance happens when self trackers assume multiple roles as designers, collectors, and sense-makers of data in that they offer a resistance to seemingly hegemonic big-data practices. The data they collect is idiosyncratic, and the notions of healthy always refer back to the individual: "Such plasticity fragments data sets and disrupts current algorithmic logics, and thus creates both material and social resistance to traditional modes of data aggregation" (Nafus and Sherman 2014, 2). It is this awareness of the lure that private data collection has for corporations, and context that can give meaning solely to the collector that makes QS'ers stand out. While quantifying can easily be construed to be a reductionist practice, a way of setting oneself up to fit into larger regimes of data collection, the stance that many QS'ers take is that not all data is the same. Much of that data that is collected through self-tracking practices only makes sense to those who do the tracking. Another aspect is the vast amounts of data that are being collected. While big data implies the ability to collect and process vast amounts of data, relevance is still key. Those who are seriously involved in self-tracking show a tendency to drop certain projects as quickly as they take up new practices. Amongst QS'ers there is a strong dictum of "N=1", meaning that the sample size is one, only the person doing the tracking. 'Healthy' then means what is *healthy for the tracker*: "Big data enthusiasts come to the QS world in search of access to data that could indicate 'healthiness' as indexed by relatively stable measurements, controlled and vetted by medical practice. But QS practices simply do not cohere in this way" (Nafus and Sherman 2014, 8).

The above example of ‘soft resistance’ can serve as a good example of the way in which deterritorialization and reterritorialization operate. There is the tensions within a single person, and in that same field at a certain moment, the tension between individuals and larger institutions, or corporations, in this case. This schizophrenic, as was described in chapter 3.1 is opposed to the ‘paranoid’ person, who projects and sees everywhere structures that regulate and systemize life. We can already see here a certain isomorphy with self-tracking. Self quantification, taken to its utmost, could signal a need to control and know everything. By accumulating endless amounts of data, the uncontrollable, through reduction and data analysis, is hoped to become controllable. What a schizoanalysis can disclose however is that the paranoid and the schizophrenic are both tendencies present within the human psyche. If one lets a desire for control run free, one ends up paranoid. However, as will be shown, those that self quantify in a reflexive manner often do this to such an extent that it defies simple reduction to a mean. The amounts of the accumulated data are so vast, and the phenomena they refer to idiosyncratic to such an extent, that the value of it can only be interpreted through a highly subjective perspective. And most rigorous self quantifiers, are very aware of this. It is precisely for this reason that $N=1$, meaning a sample size of one, is an often heard credo in QS circles. Deterritorialization and reterritorialization are both expressions of schizoid or paranoid tendencies and are processes always present and always involved in a tug-of-war. Anytime a schizoid deterritorialization takes place, for instance a person accumulating data for a sample size of one, thus $N=1$, making the data idiosyncratic, a paranoid process will react to this. The paranoid tendency is to reduce the data, create algorithms that can make the process universal, and thus reabsorb it into a norm.

4.3 Assemblages 1: From Comensuration to Self Awareness

Commensuration is the process by which different qualities are transformed into a common metric (Lupton 2014, 97) The body becomes both subject and object of scientific measurement and interpretation.

To make sense of measurements, one usually refers to a collective norm, or a general bar that is set from a collection of data. Knowledge is a social product, and one can only know if one’s heart rate is fast or slow, if there is a norm that states what others experience, and an average has been created. One's own measurements are now compared amongst a set

of measurements and given meaning as a relation to the set. However, the interior of what is experienced by measuring something and how this relates to an outside norm, differs from person to person. Gary Wolfe, together with Kevin Kelly, the coiner of the term Quantified Self, emphasizes the notion of a unquantifiable interior: “But we think of these tools as pointing outward, as windows and I'd just like to invite you to think of them as also turning inward and becoming mirrors. So that when we think about using them to get some systematic improvement, we also think about how they can be useful for self-improvement, for self-discovery, self-awareness, self-knowledge” (Wolfe 2010).

It is exactly in this notion of interiority and exteriority that Deleuze and Guattari can provide further insights. What needs to be emphasized, though, is that the notions contained in the ideas of an interior and exterior do not refer to a set boundary. The concept of the assemblage can help to illustrate this. Developed by Deleuze and Guattari, the assemblage is a complex constellation that can be comprised of bodies, artifacts, notions and expressions. What it is meant to capture is the complex nature in which individuals are shaped from all sides by forces and to illustrate the different guises these forces can operate under. The assemblage can just as well consist of an arrangement that holds no human individuals. The schema that now arises does not point to a definite inside and outside. If, for instance, a group of people is tracked for running times, the inside of this assemblage refers now to the average, or the mean, of their running times. The assemblage constitutes a short-lived entity with a specific context.

Since assemblages are not static, they change over time and overlap in multiple ways. When Wolfe thus speaks of tools that are becoming mirrors instead of just pointing outward, an analysis through Deleuze and Guattari's concept of the assemblage, can reveal that the presumed boundaries between inside and outside are not so clearly defined as Wolfe makes them sound. For instance whether the tool used is merely pointing outward, or used as a mirror, the subject doing the tracking is still placed at one end of a process. The distinction made is still that of world, technology and then subject. However the individual does not live life in isolation, only interacting with the world through self-tracking technologies. The technologies themselves are part of larger assemblages; the software they run comes with pre-calibrated norms and guidelines. But the subject is part of a larger network of culture and upbringing and is subject to a personal history of change and an individual expectation of the future shaped by external and internal forces. Between the need to track, the devices used, the

data visualized and the feedback that results from the reception and interpretation of this data, all sorts of spaces are transferred. The assemblages that arise and dissipate are unique occurrences and in need of their own specific analysis.

Kathie McCurdy, an user-experience designer and researcher who has *Myasthenia Gravis*, an autoimmune disease that weakens muscles, created a graph out of her symptoms without any numbers (Ernesto 2012). She used her skills as a designer to represent the data she collected about herself not to get a more accurate picture of her illness, but to facilitate a smoother communication with medical caregivers. Since she had to speak about her condition to a lot of different people, she could now provide a “given” and thus not always have to explain the same thing when asked for her history.

The diverse ways in which the tracker of the data can apply devices and representations to this data to make it their own, and appropriate in within their communication with the world, is thus an essential element of many of these practices. By creating new connections of sense within the body and with other bodies (technological, institutional or organic) there is a blurring of inside and outside. The objectivity of devices is not taken as given but viewed as influencing and being influenced by the way the tracker uses them. As Nafus and Sherman put it, self trackers, “(..) put things out in the world (software, reminders, routines, and sensors) in order to reflect on, and reorder, what is inside the body (the sensation of energy, mood, or productivity)” (Nafus Sherman 2016, 6).

4.4 Assemblages 2: Desiring-Production

As desire manifests itself within an individual, its origins are concealed. Desire is an active process and is produced and changed as it is either fulfilled or delayed. The desire to smoke a cigarette is an example. Or to become a parent, or have job security, or vast amounts of riches. All these examples seem straightforward, perhaps, but each and every one is a compounded assemblage, an aggregate, of several different origins, that all have their own ways of being satisfied. While the cigarette, for instance, might bring relief to a stressed body, a big part of this relief, is the deliverance of a substance that the body has learned to crave and miss. However, the ritual itself can come with its own satisfactions, which have become part of the assemblage. As one goes outside for a minute to smoke, the desk or

workplace, for example, is left behind, and one enters another environment. The ritual is larger than the nicotine craving itself.

Self-tracking as an activity to track progress in physical or health-related exercise or practices can emerge in an environment or society where by most within the society do no physical labour. The desire to have a fit and healthy body, thus is an activity done alongside or after one's regular job, and it needs to fit into a schedule. The body as a source of labour is regarded as secondary to other skills. However there are health benefits to regular exercise, and a particular demand for physical appearance. Technology then can provide assistance to streamline this activity to be as effective as possible. The desire to track is informed by different forces. The assemblage that makes one self-track, is thus both personal, as well as social and cultural.

As Deleuze explains in a densely packed sentence in *Dialogues II*, commenting on the writing process behind *Anti-oedipus*: “ It seemed to us that desire was a process and it unrolled a *plane of consistence*, a field of immanence, a ‘body without organs, as Artaud put it, criss-crossed by particles and fluxes which break free from objects and subjects’(2002.) Desire as a process does not belong to a subject or an object; it manifests itself *in-between*. Desire is never singular; one desires in aggregate. To go to a bar for a drink, it is not because one merely desires a drink, but also companionship, meeting friends, being out of the house for a while. Desire seen thusly is a positive force seeking to experiment on the plane of immanence. Desire is therefore a social force that can form and enhance the power a body has through its connections with the world at large. In short, to be, is to be *within*. There is no world that is *outside*, experienced by a mind from *within* a body. Lines intersect and cross, and mind and matter happen *in* experience. Lack as desire, as it is postulated by psychoanalytic theories, assumes too much a mind, a subject, that is missing something, looking for a completeness. Desire, though, Deleuze and Guattari argue, is a flow, and it is pre-individual. As life seeks to overcome problems, seeks to express itself, it seeks to make connections. This is what desire is: life seeking to enhance its power by making new connections. When desire is framed as lack, it is captured within a dualistic framework, deterritorialized, and seen from an absolute subjective perspective. Desire, then, becomes part of a subject who views the world, takes in what comes at her, consumes it and feels a lack, a void within when the desire has been fulfilled and the moment has passed. What the concepts

of the assemblage and the (desiring) machine express is that this dualism is untenable when the univocity of being is taken seriously.

Anytime connections are made, an assemblage is created. The machine is used by Deleuze and Guattari to illustrate this, because a machine is able to make and unmake connections and change itself in the process. The machine is chosen for its ability to break boundaries and go beyond the nature-synthetic dichotomy. An organism, reproduces only with its own kind. When an organism eats another organism, it destroys it. Organisms that do attach themselves to others usually are only of the parasitic kind and would not be described as symbiotic. The machine goes beyond all this. It can make and unmake endless connections. What the machine image makes possible is the theorization of a 'becoming machine'. It has no centre or heart, no controller in the middle. The 'I' that is there is an effect, and it becomes through passive syntheses and is itself fractured. The 'I' is a multiplicity. The subject is a product of subjectification. Flows come together, line up and diverge, form conjunctions, disjunctions. If desire is a social force and it is fabricated and assembled, then being swept up by desire finds its origins in *and* around a person, in institutions, cultural conventions, language and all regimes of signs that constitute the social world.

When one desires to self track, improving upon this desire becomes part of a larger set of forces. Kaiton Williams (Ernesto 2014), for instance, is a QS'er who started self-tracking to lose weight. In his experiments to lose weight, he discovers in himself an internal conflict in his desire to be healthy. While he is getting fitter, at the same time he realises that these desires find an expression through devices made by corporations and entrepreneurs. What concerns Williams is the amount of control one still has when optimizing has become a goal in itself and seems to never end. In his own words: "When being healthy no longer seems to mean just avoiding being sick but continuously optimizing our selves" (Ernesto 2014). The flows and forces that make up his desire have been swept up by, and are now a part of, assemblages larger than himself.

At this point, it is important to note that the notions of deterritorialization and reterritorialization bear a certain resemblance to Nietzsche's notions of the active and the reactive. Both denote the way a force can within a certain context express a certain power. However where deterritorialization and reterritorialization are designed to be used as neutral, in the sense that a deterritorialization, even when seen as a force that is liberating desire from

sedentary habits, it is not always positive. Also the retaking of a concept and reintroducing it back into a larger system always is not always an act of negative reterritorialization. These acts, just as Nietzsche's active and reactive forces, are part of the struggle and conflict that make up the flow of life. However the active forces are those that seek to affirm and express themselves on their own accord. Whereas reactive forces, merely react to those active forces out of resentment. The notion of the active and reactive are value laden, and although constituted relationally, the ultimate goal in life, according to Nietzsche, is the victory of active forces. Reactive forces only seek to divorce active forces from their power, and can become dominant in that way. And it is with this in mind that Foucault's notion of the disciplinary societies is picked up by Deleuze. For the idea of a norm, that all can adhere to, is a reactive value, as it places responsibilities outside of one, and merely affirms one's *sameness* instead of one's *difference*. The next subchapter will take a closer look at the never ending cycle of optimization, by way of Deleuze's work on Foucault.

4.5 Societies of Control

In Deleuze's work on Foucault we will find two concepts, *the dividual* and *the fold*, that will further help to disclose some of the ways in which the subject is under constant pressures, both from the outside and the inside, that make a clear distinction, between interiority and exteriority hard to make. In one of his later essays "Postscript on the Societies of Control" (1992), Deleuze uses Foucault's insights on the ways that modern societies subjectivize their citizens through discipline. Deleuze claims we have moved from disciplinary societies to societies of control. The *individual* is disappearing and is being substituted by the *dividual*. Control and improvement are in this view now placed on the subject itself, and he or she always carries it everywhere, as it is *folded up* inside oneself. This process of folding is the focus of the next subchapter. The concept of *The fold*, as described in Deleuze's book on Foucault (2006), encapsulates the folding up of the outside into the inside, of the subject, and subsequently producing the site of interiority that envelops subjectivity.

Kaiton Williams' self-tracking experience, as referred to in chapter 4.2, can help introduce what Deleuze has termed *the dividual*. Williams, a PhD student at Cornell university, in the Department of Information Science, and also a QS'er, has shared his

experiences and concerns as a self tracker. His PhD area concerns how devices, applications and algorithms are more and more used to understand “who, when, what, & why we are” (Ernesto 2014). Whilst doing this work, he privately became concerned about his health, specifically his weight, and he started experimenting with self-tracking devices and apps. Williams adapted a shifting regime of apps, sensors, devices and databases in order to understand and manage his habits and the effects they have in his body. He now found himself in an internal conflict by giving himself over to the lure of numbers and graphs, which were based on rough estimates and provisional theories, whilst being part of a group of researches that is critical of the persuasive and reductive logic that powers these same graphs. The irony, he admits, was not lost on him. The conflict, Williams goes on to describe, is that while he is intellectually fully aware that he was reacting to reductions, that he was still buying into an image of the body as a precise system. The body as a system, however, is one that goes out of sync on small discrepancies. In self-tracking, in the manner that he choose to do it, he is giving power over his body to an industry that designs technological solutions from a commercial angle. While personal success stories were pouring in, and he lost weight and subsequently felt better physically and mentally, there was a nagging fear that the control he had over this success was not fully his. “My conglomerate and I had constructed a digital model of my self that I fully bought into and managed. I was managing myself, it seems now, by proxy” (Ernesto 2014). The desire to feel healthy might be a genuine one, even a beneficiary one, but to what extent is this still a personal choice, in an assemblage such as the one Williams created for himself? The devices and algorithms that help him manage himself are designed and created by companies in order to make a profit. As Williams remarks, “(O)ur personhood and our work is [sic] increasingly being defined not just by ourselves, but by an array of others that includes entrepreneurs, governments, institutions and corporations that are all building on our desire to optimize our selves” (Ernesto 2014). Desire is produced, and its origins and effects crisscross and overlap in an increasingly complicated manner.

In his essay *Postscript on the Societies of Control*, published in 1992, Deleuze uses Foucault’s work on *disciplinary societies* to describe the transition from these societies to what he calls the *societies of control*. Foucault, in his work *Discipline and Punish* (1995), describes how Western society in the eighteenth and nineteenth century developed the disciplinary society. In this organisation of society, the individual never ceases to pass from one enclosed space to another. There is the family, the school, the factory, the hospital, and

every space has its own laws. The goal of this is to concentrate and distribute, in time and space, and maximize the efficiency and use of both the people and the institutions that govern them. Central to Foucault is that power and knowledge are intimately linked. Power produces knowledge, and this knowledge in turn is used to keep power with those who have it. Deleuze, however, argues that these institutions are dying. The institutions themselves announce reform after reform, but “(..) it's only a matter of administering their last rites and of keeping people employed”(Deleuze 1992, 2). This does not mean that control is given to the individual, or that power and knowledge become linked. What has begun to replace the old institutions, is the society of control. In a mechanism similar to Foucault's *panopticon* (1995), the individual is turned on itself and is organizing her own control is subsequently turned into the *dividual*. Foucault uses the panopticon to describe how discipline and surveillance are used to their maximum advantage through minimal means. To illustrate this, Foucault turned to Jeremy Bentham's designs for a penitentiary (1995) designed in such a way that the prisoners never know when they are being watched. The prison consists of a large circular hall, housing all the cells, with windows facing the inside of the building. In the middle of this circle there stands a watchtower, but a prisoner from his cell is unable to detect if a guard is present or not. The effect this has, according to Foucault, is that the prisoner always feels watched and therefore has to assume he is always under surveillance. The knowledge that control is being exercised is enough that through disciplined structuring of this enclosed space, the subject, the prisoner in this case, has altered his behaviour. Foucault used this example to illustrate how this disciplining of bodies has found its pinnacle in the twentieth century. In an often quoted passage, Foucault writes : “Is it surprising that prisons resemble factories, schools, barracks, hospitals, which all resemble prisons?” (1995, 228). Discipline is everywhere, and bodies are distributed and placed across time and space, producing a certain social order.

Where in Foucault's disciplinary societies, institutions exercised their control by creating enclosed spaces, in societies of control the institutions have become nebulous, like a gas. “Enclosures are molds, distinct castings, but controls are a modulation” (Deleuze, 1992, 4). A constant tweaking and adjusting is taking place, and it is the individual itself that is supposed to take this responsibility. The result of this constant adjusting is a need to retrain and educate oneself, and constantly present the best, or healthiest, person that one could be. In disciplinary societies, everytime one entered another enclosed space the figurative dial was

returned to zero, and one has to start again, prove oneself again. Within societies of control “If the most idiotic television game shows are so successful, it's because they express the corporate situation with great precision” (Deleuze 1992, 4). Disciplinary societies had two poles, the individual on one end and on the other, ‘the masses’. All administrative systems were designed to deal with the position the individual has within the hierarchy of a given mass of people. In societies of control the mass/individual pair has disappeared, and in its place we find *the dividual*. The dividual is controlled by *passwords* that give or deny access to information. Everything becomes about numbers and information, market value, marketing. Control is levied through information and debt- the flows and fluxes of control. Before the disciplinary society, it was the sovereign that reigned. A crime was punished on the body because a crime was interpreted according to the ways in which it hurt the sovereign who owned everything. The prison system evolved at the same time the cities grew, and science turned its gaze inward, to the psyche of a person. The prison was designed to discipline and educate, punishment made place for re-education. But as these institutions grew in power, this power became embedded within the institutions. Within the society of control, the *corporate society*, the power to regulate and control needs no enclosure anymore. The panopticon effect is administered by every individual on themselves. The need to be healthy, the need have as much information as one can have on oneself, has been folded into the individual.

4.6 Foucault and The Fold

In the last chapter of his monograph on Foucault, Deleuze speaks of the way Foucault was in a sense obsessed with the folding and doubling that creates the subject’s relation with itself. Folded force creates subjectification (Deleuze 1991, 86), time becomes a subject because of folding (ibid 89), and folding is even at the heart of Foucault’s break with phenomenology (ibid 89): “An Outside, more distant than any exterior, is ‘twisted’, ‘folded’ and ‘doubled’ by an Inside that is deeper than any Interior, and alone creates the possibility of the derived relation between the interior and the exterior” (Deleuze 1991, 91). The ‘Outside’ and ‘Inside’ spoken of here are created by doubling the experience of the world, inside an individual. If there is not an individual, then nothing is being experienced, and nothing is remembered. In the process of being, in the event of phenomena happening, something gets

recorded and archived; a diagram is created, and a doubling has taken place. What is described here is a process of memory and how it serves to create an individual. If I run, my body reacts and my mind might remember the event. While running I do not process all that is happening; my mind will probably wander. Whether I am mindful of all that is happening or not, the event of running is taking place. All kinds of events like this take place on a daily basis, and most are not mindfully experienced, nor actively remembered. All of these events in one way, or another, constitute a meeting of the individual and the world; all these events leave marks, physical or psychic, and are thus a process of doubling or folding.

According to Deleuze, there are four folds that affect the subject's relation to itself. There is the fold of the body, the fold of social conflict, the fold of knowledge and the fold of the outside, the limit of life and death (Deleuze 1991, 86). What these four categories of folds express is the different ways, in which the outside is leaving its marks on the inside of the subject. The subject consists of all that she or he has experienced. However, it is knowledge that stands in the middle of it all. For seeing and speaking means knowing, and we do not see what we speak about nor speak about what we see. It is in knowing that we consolidate all the agreements on what we see and speak about. But, central to Foucault, is that power and knowledge are intricately linked, in that power is based on, and makes use of knowledge, and yet, power also shapes knowledge. The subject is increasingly shaped by the power relations that surround the individual, and power and knowledge both are individualized to such an extent that subjectivity comes more and more under question. The growing concern of what room there remains for the subject finds expression in Foucault's later work, *The History of Sexuality Part 2 & 3* (1992, 1990), and the *Hermeneutics of the Subject* (2006b). This can be interpreted as a return to the subject, but, according to Deleuze, Foucault does not return or discover the subject in these works instead adding a third dimension to knowledge and power, namely self. Knowledge, power, and self are irreducible; they imply each other; they are historical and can be considered as "three ontologies" (Deleuze 1991, 94). It is in modulation and interplay between these three ontologies that subjectivity is created.

The folds create sites of interiority, and it is here that a subjectivity is found. This idea is hard to grasp as long as the distances involved here are grasped as Euclidian. "Every inside-space is topologically in contact with the outer-space" (Deleuze 1991, 97). These are not distances measured but distances sensed. So if we go back to the example of Anne Wright, the woman who discovered her allergies through careful tracking of the interactions

her body had with her environment, the only information she started with was that her body was showing symptoms of sickness and that doctors could not tell her why. The knowledge of the average body that was present at the institutions examining her was inadequate to help her. It was only through applying her own measurements, and using these with the sense she alone can have of her body and how it reacts that she was able to find the triggers for her illness. In her case, it turned out to be simple, yet highly uncommon allergies.

An analysis, such as the one above, can indicate that any subject's desires have been intricately and carefully planted inside the individual, from the outside, and leave one wondering if there is any free will left for individuals to decide on their own. It is, however, outside the scope of this thesis to get into a debate concerning free will and autonomy.

Chapter 5 Conclusion

As society becomes more technologized, and technologies become smaller and more powerful, the networks we are a part of become more and more a fusion of the digital, and the biological. Whereas some might view this as a reason for grave concern, as a danger that results in the loss of an original humanity, others see in this shifting of the boundaries, opportunities for growth, and the breaking down of old hierarchies. In chapter 2 it was argued that a radical posthumanism, underpinned by a Deleuzian philosophy of becoming, would be best suited to reveal both the paranoid and schizophrenic tendencies within these in new human technology assemblages. Throughout this essay, it was argued that a struggle between chaos and order, is at heart of all systems. Active and reactive forces, deterritorializations and reterritorializations, as time keeps flowing, it becomes clear that life is not static, but constantly becoming. Those that are involved in self-tracking to such an extent, that they adopt the term Quantified Self, are well aware of the tensions involved between the individual and masses of people. The QS'ers, while intensely pursuing what their own bodies are capable of, and learning from this through quantifying all manner of aspects about themselves, meet up regularly in big groups to share their experiences. Knowledge is a social product, even when your sample size (N) equals one, (only the self). As the individual subject is involved in measure and quantifying the self, tensions arise and dissipate, and while a QS'ers can now appropriate designs and devices, that in their sheer analytic power were, merely a decade earlier, solely available to big institutions, this act of deterritorialization, of schizophrenic creation, is, just as quickly, reterritorialized by big-data companies, in a paranoid tendency to systemize, as these corporations are looking for ways to order and structure the idiosyncratic experiments of the $N=1$ QS crowd.

To have control signifies to be able to master a thing, but the production of desire in the subject, is done at a molar scale, and is pre-individual. As was argued in chapter 4, through Deleuze, via Foucault, and Nietzsche, via Deleuze, as the subject is shaped by forces, these forces are shaped in turn. There are flows of becoming yet blocks of becoming steer these flows. Control now becomes a process, that in turn is swept up along a flow, and is individualized as it becomes, and eventually dissipates again. Whereas Foucault spoke of disciplinary societies, structuring and ordering bodies in place, Deleuze speaks of societies of

control. Control has become a floating presence, and has become completely embedded within the subject. Control has however taken on a different meaning. It has become a control over the body, one's skills, one's education, *in order to* fit in, within the flow, the block of becoming, that is most dominant at the time.

Chapter four of this essay closed with Becoming as the power to be affected. When someone is self-tracking, in what way is the body affected? What blocks of becoming are created? The previous chapters have argued that there is no single answer. There are blocks of becoming that seduce one to surrender, to follow the masses, and there are becomings that are more individual. Self-tracking can be both reactive and active, paranoid and schizophrenic. What is needed, is an attitude towards life that is an ethics of *life itself*, and to reiterate Foucault's words in referenced in chapter 3, a *non-fascist life* specifically.

Future Research and Suggestions

Earlier versions of this essay had a section on Bergson, but as the writing progressed, giving it the proper attention within the chosen framework, distracted from the main arguments. Bergson as a thinker has hugely influenced Deleuze's thinking, but it is in Deleuze's books on cinema, *Cinema 1* (2013a) and *Cinema 2* (2013b), that Bergson's philosophy of time and the image truly gets picked up by Deleuze and giving a new perspective. Both Bergson's philosophy on mind, matter, memory and time, and Deleuze's philosophy on cinema, provide ample insights in their own right, but could provide interesting new perspectives on perceptions of the self, and the relations and assemblages that constitute individuals in a world crisscrossed with connections. Furthermore, Keith Ansell-Pearson, who has written extensively on many topics, including Nietzsche, Bergson and Deleuze, has just published a new book titled: "Bergson: Thinking Beyond the Human Condition" (2018). This further strengthens Bergson as belonging to a more radical post-humanistic perspective. The main line of argumentation for this essay was being as becoming, and the ways in which an individual is steered by subjectification processes. The essay that was not written, would have taken Bergson, and Deleuze's reading of him, and focused on *lived* time versus *clock* time, and how, even before the invention of cinema, we live in a world of images, that shape us. This approach would have been complementary to the thesis as was written, but would have been drawn from a slightly different angle.

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