Geographies of Compulsive Interactions

Bodies, Objects, Spaces

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Thesis Summary

This doctoral thesis introduces compulsivity as an empirical, conceptual and theoretical phenomenon to human geography. Compulsivity as mobilised here is associated with the Tourette syndrome diagnosis, and can be understood as the performance of unwanted and unprecedented interactions that are experienced to be purposeless and meaningless in their response to unqualified urges.

Drawing on and contributing to medical and clinical sciences of Tourette syndrome, geographies of medicalised performances and perception, as well poststructural and postphenomenological theories in cultural geography, it focuses on the performativity of compulsive interactions between affected bodies and their material environments.

As urge-driven compulsions have received little to no scholarly attention, the study seeks to identify if and how a spatial approach could help understand these engagements. In turn, it explores how compulsivity as a principle could develop geography's conceptualisations of person-place relations.

The study then examines the ways in which bodily environments affect compulsive interactions, and how they are negotiated. It does so through in-depth semi-structured interviews, participant observations, and mobile eye-tracking in close collaboration with 15 participants. The study took place in the homes of the participants, shops, cars, public transport, natural areas, and schools in the Netherlands over an 8-month period.

The outcomes reimagine compulsivity as choreographies between human bodies, objects and spaces that configure towards each other and form systems through dimensions they then come to share. Compulsive interactions constitute, affirm, and (re)stabilise these systems by elongating their durations in order for those affected to thrive. In their anticipation and performance of compulsions, they apply a plethora of spatial negotiation techniques.

In addition to carving out a space for a compulsive approach to body-world formation beyond the Tourette syndrome diagnosis, this study develops a vitalist ethics for human geography to study medicalised performances. Furthermore, it proposes new ways for capacity building for, and integration in, academic research of those affected.

For, with, and *to*

John Clayton

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By Wislawa Szymborska (1923-2012)
From "Poems New and Collected 1957-1997",
Translated by Stanislaw Baranczak and Clare Cavanagh

Under one small star

My apologies to chance for calling it necessity.

My apologies to necessity if I'm mistaken, after all.

Please, don't be angry, happiness, that I take you as my due.

May my dead be patient with the way my memories fade.

My apologies to time for all the world I overlook each second.

My apologies to past loves for thinking that the latest is the first.

Forgive me, distant wars, for bringing flowers home.

Forgive me, open wounds, for pricking my finger.

I apologize for my record of minuets to those who cry from the depths.

I apologize to those who wait in railway stations for being asleep today at five a.m.

Pardon me, hounded hope, for laughing from time to time.

Pardon me, deserts, that I don't rush to you bearing a spoonful of water.

And you, falcon, unchanging year after year, always in the same cage,

your gaze always fixed on the same point in space,

forgive me, even if it turns out you were stuffed.

My apologies to the felled tree for the table's four legs.

My apologies to great questions for small answers.

Truth, please don't pay me much attention.

Dignity, please be magnanimous.

Bear with me, O mystery of existence, as I pluck the occasional thread from your train.

Soul, don't take offense that I've only got you now and then.

My apologies to everything that I can't be everywhere at once.

My apologies to everyone that I can't be each woman and each man.

I know I won't be justified as long as I live,

since I myself stand in my own way.

Don't bear me ill will, speech, that I borrow weighty words,

then labor heavily so that they may seem light.

CHAPTER 1   INTRODUCTION

1.1   COMPULSIVITY?

It is some 16 years ago. My family and me have just finished supper. As always, my father, mother, sister and me get up from our chairs, pick up the glasses, empty pots and pans, and bring them to the kitchen. We all know that my sister, Laura, will not pick up the plates with the cutlery on top, because she just can't. Albeit with some reluctance, it had made its way into the family psyche. In the kitchen she puts the condiments she had picked up instead on the counter so that they align with each other and the edge of the counter perfectly. Before turning around to go back, her hand goes towards the bottom left corner of a cupboard door and pushes her thumb firmly in its tip. She then notices a drawer that had not shut entirely, upon which she has to close it despite my mother using it. With every step she takes, she measures where she puts her feet as to not interrupt the lines coming from the corners of the kitchen, kitchen table, and lines between the tiles. I had seen it a thousand times, and would see it a thousand times more; Laura had explained not knowing why she did it, and simultaneously unable to not do it a thousand times, and would repeat this a million times more.

'Compulsions' (e.g. Robertson and Cavanna 2007; Shapiro and Shapiro 1992; Shapiro et al. 1988). 'obsessive/compulsive symptoms' (e.g. Cavanna et al. 2009; Eapen et al. 1994), 'repetitive behaviour' (e.g. Leckman et al. 1994; Miguel et al. 2000; Neal and Cavanna 2013), 'repetitive phenomena' (e.g. Cath et al. 2001), 'Complex motor tics' (e.g. Verdellen et al. 2008) and 'compulsive-like tics' (e.g. Robertson et al. 2008). These are the clinical concepts attempting to capture Laura's acts. They take place following unqualified bodily sensations and anxiety and are associated with the Tourette syndrome (TS) diagnosis. These unqualified 'premonitory urges' become increasingly uncomfortable with time passing when not acted upon (e.g. see Banaschewsky et al. 2003; Capriotti et al. 2013; Leckman, et al. 1993; Woods et al. 2005). Because of these urges, Laura and those who share

her experiences feel compelled to interact with certain objects in a very particular – and often routine – fashion (Comings et al.1990).

Compulsive interactions have been conceptualised as 'behaviour' inciting touch, order and symmetry (e.g. Cath et al. 2001; Worbe et al. 2010). To date, these acts remain a 'fringe phenomenon' in scientific research, as it revolves around the diagnostic criteria of motor and vocal tics of Tourette syndrome. These tics are understood as "sudden, rapid, involuntary, nonrhythmic, and repetitive movements or vocalizations" (Singer 2013, pp. 23). As compulsive interactions are vastly more idiosyncratic than tics, they are difficult to capture by the positivist research traditions of medical and clinical sciences. This has often rendered them either absent from, or indistinctively present in, such research. Therefore, to date, compulsive interactions have only made appearance in debates on how to conceptualise them in relation to tics, and engagement with their performance rare. Whilst carrying a family resemblance with Obsessive Compulsive Disorder (OCD), they differ as compulsions associated with the latter are understood to take place in response to obsessions and connote fear.

Before she knew about these medical conceptualisations, Laura had rendered herself abnormal as her body urged her into the unwanted and unprecedented interactions with certain objects and elements of spaces in 'peculiar' ways. Seemingly unable to control her own body, Laura's engagements did not fit any category, and apart from the physical pain, not being able to make sense of them caused her great distress. All the structures normally employed to regard embodied life proved obsolete; her body did things that she and others around her could not understand through existing systems of logic which normally explained bodily performativity. Apparently, something needed to be 'wrong' with her. After having sought medical help on the basis of her movements and utterings, she was diagnosed with Tourette syndrome. The diagnosis assured her and others around her that it was not her fault. Her brain malfunctioned, and with medication and behavioural therapy, the interactions would become more 'controllable'. As such, the interactions had become rendered a structural problem of her brain, and she did not need to make sense of every individual 'symptom', as what they had come to be known as anew. It was all in her head, and it was her nervous system that needed to be fixed.

This thesis comes at a time when our knowledge about the human body and what it is capable of evolves at breath-taking pace through advances in the sciences. Our bodily existence seems to harbour very few secrets anymore, as differences can be measured with increasing scope and detail. As such, the confidence in our understanding of human bodily existence has never been stronger, and what it does is under ever more scrutiny. Diagnostics capture more aspects of human life with every new publication of the Diagnostic and Statistical Manual of Mental Disorders (DSM), and accordingly, Laura's compulsive interactions have been categorised as 'deviant', defined by and assigned to the realm of neurosciences and psychiatry. As we will see, these Western medical sciences conceptualise all bodily engagements as originating in the brain (Davies, 2016)

Neuropsychiatric conceptualisations of the body and its performativity have undoubtedly helped to provide relief from suffering in many ways. Indeed, they have become so successful that they are increasingly becoming influential in Western political ideology. Nonetheless, the dominance of these approaches that centre the brain in understanding human performativity permits the dismissal of others, despite an absence of definitive biological proof, especially with regards to compulsivity. Then, as reflected in Laura's experiences, conceptualising compulsive interactions exclusively in terms of the brain and nervous system requires an articulation of detectible difference in structures, fluids, and processes from non-compulsive 'normal' brains. This difference renders compulsivity an epistemological constant, which assumes compulsive bodily performance expressions of an underlying neuropsychiatric problem (see Davies, 2016; Pykett 2017). This renders an ontological dispersal of Tourette's beyond the brain, or body, obsolete. Therefore, looking at what the body actually does, when it does it, and how therefore becomes entirely superfluous. However, such understanding cannot explain why certain engagements always happen in particular situations, with particular body parts, and with particular objects.

1.2   COMPULSIVE GEOGRAPHIES?

This study also comes at a time in human geography in which the interest in bodily performativity has firmly established as central to the "extraordinary sets of relations between people and places" (Holloway and Hubbard 2000, pp. 6). The humanist

approaches upon which such relational understanding of bodily performativity is based mobilises the body in structures of meaning and willpower (e.g. Tuan 1974, Relph 1976; Buttimer and Seamon 1980), in which the body is a 'recipient' of spatial forces. In response to the inherent passivity and universality of such conceptions of the body, its performativity has become rendered actively productive of spatial knowledge (Butler 1993; Longhurst 2001; Teather 1999). Such notions thus activate the body, and place more emphasis on the unfolding of the *momentary* and *in situ* performance of its spatial relations, which gave rise to more vitalist considerations of bodily performativity. The pervading idea that the human has (full) control over, or can grasp their bodily environment then challenged the increasing dominance of cognition as metaphysics for human performativity. The body became repositioned as intimately entangled with its constituencies (Anderson and Harrison 2010).

Conceptions of bodily performativity thus required expansion beyond structures and beyond the human. Such considerations gave rise to post-structural (e.g. Doel 1999; Murdoch 2006; Thrift 2004), post-humanist (e.g. Coyle 2006; Whatmore 2002) and postphenomenological[1] (e.g. Ash 2015; Simpson 2009; Wylie 2005) approaches. They seek to conceptualise bodily performativity from a less anthropocentric stance, and consider its constitution to take place through human and nonhuman agency, as well as corporeal and extracorporeal affects. The co-constitution of human performativity with non-humans such as objects and spaces then challenges the subject-object divide in favour of subjectification processes (see Lea 2009; Ash and Simpson 2016). Experience of embodied life then articulates in the *felt* rather than is articulated in the *known* (Dewsbury 2003; Harrison 2008; Anderson 2014).

At the time this thesis comes to fruition, bodily performance that has been medicalised is being reconceived along more vitalist lines as well. Medicalised aspects of bodily performativity have traditionally been understood as an exclusively human affair in which the environment is articulated as a barrier (e.g. Gleeson 1999). Currently, geographical sub disciplines disability and health geography have recently started to explore human (dis)ability, (ill)health, impairment and (ab)normalcy as co-constituted beyond the human (e.g. Andrews et al. 2014; 2017; Hansen and Philo 2007, MacPherson 2010, Colls 2012, Gorman 2017; Bissell 2009; Hall and Wilton 2017; Hinchliffe et al. 2018). With its focus on bodily performativity, sensitivity to and activation of the corporeal environment, human geography offered

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[1] Although the premise of this philosophical tradition is shared with *neo-phenomenology* and *technoscience*, I refer to it this body of thought as postphenomenology in line with its uptake in geography.

an ethics that could help engage with Laura's compulsive interactions. By reconceiving them through a performative geographical approach, their unfolding could potentially be understood in terms sensitive to the ongoing bodily situation. It is also to these approaches that this thesis is envisioned to make the most contribution.

This thesis adds to the movement in geography away from the human as ontological centre to the embedding of the human in relationalities with non-humans, and as always mobilised in the realm of the more-than human. It adds to the debate a fundamental question about what constitutes the human. Western sciences ascribe to the human inherent qualities of rationality (even when found emotional), intentionality, reflectiveness and consciousness of action. In these ideas these values seem to count as epitome of humanity, that which separates us from non-human animals and objects. This is a notion of humanity that puts us as a species on a pedestal, and is mobilised to commit all kinds of acts to other organisms, as well as to human beings who do not openly commit to these. As such, it sustains current critiques of anthropocentrism in geography and the wider social sciences.

Developing compulsivity as a set of conditions that also underpins human life then helps blur the modern categories of the human and non-human. Indeed, in presenting a humanity that differs from these celebrated values, this thesis shakes their well-established fundaments. As such, it demands a revision of the Western principles of the human condition, as well as the legal system that is underpinned by these principles, as it directly challenges the location of responsibility over action seemingly initiated by the human. Doing so then helps tackle the notion of normality that seems to regulate societal norms and values regarding the place of those deemed not to fit with the idea of what constitutes an abled society. With this thesis coming to fruition in an age of rising fascism, more stringent legal systems, and increased surveillance, it also hopes to help counter the tendency to use neuropsychiatric knowledge, and the diagnostic system on which it is based as method of policing people.

1.3   STUDYING A MEDICALISED PHENOMENON AS GEOGRAPHICAL

The study thus sets off from the premise that a performative geographical enquiry could develop our understanding of compulsive interactions, and help Laura and others like her to better cope with them. Human geography could be therapeutic in

this instance, as it has been in so many others. To date, however, human geographers have had no interest in compulsive interactions in particular and potentially unwanted engagements more generally. The only compulsions that had found their way into geographical literature are those based on fear by Segrott and Doel (2004), and motor and vocal tics driven by urges by Davis et al. (2004). As such, compulsive interactions, and unqualified compulsivity more broadly are introduced into human geography as a new empirical phenomenon.

In this context then, how to study a phenomenon that has been claimed entirely by medical sciences, a set of logics that adhere to vastly different philosophical values and operate under vastly different circumstances to a performative geography? Perhaps it is showing of my initial naivety to believe that a medical concept could be adopted into a geographical enquiry without redefining it. Indeed, with the progression of the literature review, making a geographical approach fit with a medical concept would prove less productive and confusing every day. The discrepancies between what I knew of Laura's compulsive interactions, the medical rendition of these acts, and geography's capacity to make sense of embodied performativity, were astounding. Even more than expected, the medical and clinical sciences and human geography proved hostile to each other; the sciences disregarded considerations of the spatial and experiential in their concepts and methods, and geography refused a compulsive humanity.

For a while, it seemed impossible that human geography with an interest in performativity and the medical and clinical sciences concerned with Tourette syndrome could come together in a productive manner. Exploring a geographical rendition of compulsive interactions that would be beneficial to both disciplines, as well as those afflicted was easier said than done. The study could have created a spatial distribution of compulsive interactions, or a merely descriptive account of the bodily context if the medical scientific ontologies and epistemologies had been adopted uncritically. However, as this would forego capturing the richness and depth of the phenomenon I knew so well, this was not satisfactory. Therefore it required a re-imagination and reconceptualization of compulsive interactions as well as the bodily and spatial conditions enveloping them. The study ended up developing compulsivity as a productive spatial principle that renders people and places susceptible to these interactions.

In the medial and clinical sciences concerned with Tourette's, the spatiality of compulsive interactions had not been considered as an important enough aspect to

articulate beyond 'environmental influences'. It had spiked some interest in the years prior to the study (e.g. Woods et al 2009; Capriotti et al. 2013), and it was on this premise that Cara Verdellen, PhD had become interested in the project. As clinical psychologist with a specialisation in Tourette syndrome she hoped that the project could help improve the effectiveness of behavioural therapies beyond the treatment rooms. In the capacity of external advisor, she provided oversight and insight to the directions clinical considerations of TS research had been developing in. As I do not have any medical training, her presence worked as a confirmation of relevance for those who were unsure what to expect of the project. Her addition proved especially important for the recruitment of participants and the emergence of trusting relations with them, as she has been a familiar face within the Dutch Tourette's community. Nonetheless, with the development of the methodology, it became clear how fundamentally different the social scientific ethics that this study had adopted were in comparison to the medical and clinical scientific ethics. This had several implications for how the study is set up.

Firstly, the study refrains from prioritising the premise upon which the compulsive interactions have been medicalised. Indeed, as the geographical element articulates in the interactions, and not in the diagnosis, the Tourette syndrome as such is not the central focus of this study. The diagnosis is only invoked as context within which understanding of the interactions has been developed; both academically and experientially. The diagnosis also imposes an artificial separation between bodily performativity that has been medicalised – and thus denormalised – for which a different set of expectations become mobilised. Prioritising the medicalisation would have troubled grasping the fluidity with which compulsions slip in ongoing life. Also, focussing on the interactions themselves prevents the TS diagnosis to become mobilised as a self-referential explanation. In line with this, participants are not referred to on their potential capacity as 'patients', as this study does not take place in a medical context.

Secondly, and by extension, this research refrains from studying compulsive interactions first and foremost on their capacity to cause suffering. The interactions are mostly regarded a negative aspect of life, and the outcomes of this study have been envisioned to be therapeutic. Nonetheless, Laura and many others I have spoken about their compulsive interactions with, refuse to see themselves necessarily as victims of their own condition (see also Hollenbeck 2003). According to Springer (2013), the potential ambiguity stems from the experience of the

premonitory urge; whilst those affected have no control over its emergence, they do over their response to them. In other words: they feel compelled to act out what their body urges them to do, but as they can suppress the urges to varying extents, most people insist on the compulsive interactions to be their decision. Allowing for a variety of personal stances about this, the study does not start off with the premise of aiming to erase the compulsions, or 'fix' the afflicted body. As such, the study does not conceive of the compulsions as a priori signs of (dis)ability, (ill)health, impairment, or as affirmation of abnormality. In turn, this allows for a fluid and situational emergence of suffering, without denial and in full awareness of its potential to burden. On this basis, the study adopts a pre-personal ethics of unpicking this bodily performance.

Thirdly, this study aims to open up a space in which those affected can express the "affective force" of their experiences, as Callard (2006, pp. 875) articulates it. Therefore, the study aims to go beyond raising awareness of the condition's existence, and explanation of what it is. It is hoped that the study facilitates a discussion that is heard beyond their community and carries to other realms that can be of assistance in coping with the compulsive interactions, and the Tourette's condition more broadly. Instead of necessarily translating their experiences into medical language, the study hopes to contribute to the development of an experiential vocabulary that captures the richness of individual sense-making processes. To this end, the study is geared towards giving those afflicted a platform to do it for themselves for a new audience that I think should be aware of them and their condition.

1.4   RESEARCH QUESTIONS

The overall aim of this thesis is to enquire in what ways human geography and the concept of compulsivity co-emerge, interact, and interrelate. In other words, this thesis identifies what can be learned from a spatial perspective of compulsive interactions. It intends to reveal how bodies, objects and spaces permit, allow and even induce such interactions, as well as the spatial ways those affected negotiate the effects by adopting measures that tackle the relations between bodies, objects and spaces. Furthermore, the study aims to gives those affected a voice in research on and treatment of their condition, and break compulsivity out of medicalised spaces and into the realms of the everyday. In turn, the study intends to uncover

what compulsivity can uncover about relations between human bodies, objects, and spaces when engaging in purposeless, irrational and meaningless ways. As such, it aims to unsettle the category of the human in geographical research that does not permit such relations. The study also aims to open up geographical enquiry into medicalised phenomena without the necessity of adopting medical and clinical renditions of the phenomenon. Ultimately, the project intends to demonstrate how both geography and compulsivity can be a *method* rather than only a *subject* to interrogate each other. With these goals in mind, the thesis asks the following questions.

Research question 1: How are compulsive interactions, performed by people with a Tourette syndrome diagnosis, affected by the bodily environment?

This question aims to uncover what aspects of the bodily environment are responded to during compulsive interactions performed by people with a Tourette syndrome diagnosis, and in what circumstances they become 'interesting' for those afflicted. What kind of compulsive interactions take place with what kind of materials and with what body parts? What are the circumstances under which they are performed, suppressed, or adapted to better suit a situation? What are the attributes of the objects and spaces, and how do these evoke compulsive performativity? What do compulsive interactions accomplish, and for how long? Under what circumstances do they recur, if at all? This question aims to establish compulsive relations between bodies and their environments, and the ways in which the urge mediates these relations.

Research question 2: How do people with a Tourette syndrome diagnosis negotiate performing compulsive interactions?

This question seeks to identify spatial elements to the management of performing compulsive interactions, and if these can teach us something about the kind or their origin. It asks if these negotiations could say anything about the nature of objects, spaces, or even the body with which compulsive interactions take place. Looking more closely at these negotiations might reflect harmful aspects of the compulsive relation between the person and place. Placing negotiations in relation to compulsive interactions could also reveal more about the complexity of the way those affected anticipate and sustain their involvement in compulsive interactions and compulsivity more broadly.

Research question 3: What can be learned about the relations between people and place from compulsive interactions performed by people with a Tourette syndrome diagnosis with and the negotiation of affective environments?

This question explores what compulsive interactions reveal about personal geographies that geographers had not yet considered, and if this could be helpful in conceiving aspects of person-place relations that sustain human thriving and deterioration. Also, it seeks to address the ways in which compulsivity as so far removed from human geography's long-standing, comfortable attendance to meaning, rationality, and intentionality can teach us something about humanity? Furthermore, this question also aims to examine human geography's engagements with medicalised performances. As such, the outcomes of this question offer not only an interrogation of geography's acceptance of a stretching of or a challenge to the way the category of the human is currently conceptualised, but one with an aspect that has been medicalised.

1.5   CAPTURING COMPULSIVE GEOGRAPHIES

Understanding the spatiality of the performance of compulsivity requires a situational onto-epistemology. The study focussed on documenting the unfolding of individual compulsive acts. This unfolding then provided information about the circumstances upon which the compulsions emerged, and what elements of situations played a specific role (e.g. body parts, objects, place aspect). In order to capture this unfolding, I kept the situation of the study as open as possible, and left it up to the participants to decide with what situations they felt comfortable in performing their compulsions. In line with my expectations that were based on having witnessed Laura performing compulsivity, and having spoken to others and Cara Verdellen, most places with a deep familiarity to the participants became the most prevalent research sites. As chosen by the participants, these included the home, car and different modes of public transport, supermarkets and shops, natural areas and streets, a university building, a café, and a pharmacy. The data collection then enveloped a multi-method study carried out over a period of 8 months in various places in the Netherlands. Capitalising on Laura's extensive networks, developed through her ongoing involvement with the Dutch Tourette's foundation (Stichting Gilles de la Tourette), I was able to work with 15 people for up to 12 hours per one participant, which formed the empirical basis of this study. The study is based on 48

meetings and roughly produced 48 hours of interview material, 248 registered and observed compulsions, and 10 hours of mobile eye-tracking recording) (see Chapter 3 Methodology).

The capturing of the spatiality of the compulsive interactions took place in three ways; each method offered documentation of different aspects. They include semi-structured interviews, participant-observations, and mobile eye-tracking, although participants decided how, where, when and for how long they took place. The interviews captured the experience of performing compulsions and the urge to do so. They proved challenging in some instances; how can you communicate an act you have to do but do not want to do or know why you do them? I had anticipated participants struggling for the formulation of answers, but was taken aback with the vastness of the difficulties it presented. As such, instead of being able to 'explain' compulsivity on an experiential basis, the study offers the delineations of experience in compulsive processes. In turn, this clarified the ways in which and the extent to which a person can and does take responsibility over their compulsive acts.

The participant-observations captured what body parts, objects, and spaces directly became involved in the compulsion. They also demonstrated how these interactions took place in real-time in between other-than-compulsive[2] life, how the presence of other people was negotiated, and if and how they camouflaged performing them in any way. With this method it became most clear how strong compulsive processes unfolded differently between people. Activities had me walking 7 dogs for 2 hours, crouched on the floor felting, hanging out in a charity shop, and having lunch with partners or children. On two occasions where participants had promised themselves and me to not 'hold back', they were so disappointed with the amount that 'came out' that they recorded themselves during an activity that invoked many compulsions and sent me the file afterward. On the basis of these recordings and the observations, it dawned on me how elusive these interactions are, and that they are anything but clear-cut and different from non-compulsive interactions. Despite having developed a keen eye for compulsivity through the years of living with my sister, on many occasions I had to ask the participant 'if that was one'. And to my astonishment, they were not always sure about the compulsivity of particular acts. Compulsions turned out to be more fluid than they were described in the scientific literature, as well as in the interviews with the participants themselves.

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[2] In not wanting to invoke a dichotomy, as compulsivity does not have a distinguishable, stable 'Other', I use other-than-compulsivity where a difference needs to be made.

Although mobile eye-tracking had been a desired method since the development of the research proposal two years prior to the start of the study, it had not been planned as comfortable and high quality systems were very expensive. Six months into the data collection with the interviews and observations, one of the newest systems had been made available to me for two months (see Section 3.3.3). This was the Tobii Eye-Tracking Glasses 2, which is a pair of glasses that traces the gaze of the wearer and records it against what they are looking at. Therefore I consider myself extremely lucky that all people I had worked with before, and those becoming involved after were happy - and frankly quite curious! – to do some eye-tracking sessions with me. As this method captured the unfolding of compulsive interactions in real-time and from the first person perspective, it provided invaluable information about the circumstances that led up to them. In combination with the interviews on the basis of the recordings that allowed participants to recall the moment's sensations and appeal, and decision not to suppress it, this method opened up new dimensions of access to the compulsive situation. The 9.5 hours of recording this produced captured the intricacies of compulsive engagement with amazing depth, which I feel I only have been able to scratch the surface of in this research.

Indeed, as mobile eye-tracking is a relatively new method both in human geographical research and on urge-driven compulsivity and Tourette syndrome research, this study opens up new methodological possibilities for future research that combines them. The qualitative analysis this study conducted of the recordings, which had been developed for quantitative analysis might speak to new audiences, and contributes to attempts to make manufacturers consider developing software for qualitative research. Also, with the combination of the three methods in the collaborative social environment shaped, the study offers a new way of conducting research based on performative philosophies. As such, it offers a new performative methodology on research into medicalised human conditions which is currently dominated by narrative methods (e.g. Davidson 2010; Davidson and Henderson 2010; Donovan 2014; de Leeuw et al. 2017).

1.6 THESIS OUTLINE

This thesis is set up to be constructive of finding ways forward between medical and clinical sciences of Tourette syndrome and compulsivity and human geography. To

this end, it does not study the differences between the approaches to compulsive interactions in exhaustive fashion. Rather, it acknowledges the situatedness and cultures of the production of medical knowledge (see Philo 2007).

Chapter 2 on the literature review then starts with an exploration of the medical and clinical literature on compulsive interactions that are driven by unqualified urges. Rather than uncritically adopting the results, the chapter filters out the general tendencies and suggestions of spatial and experiential pronunciation of compulsivity. Thereafter, geographies of medicalised performances are explored to understand how geographical sub disciplines have rendered the bodily performances in accordance with suffering that bares similarities to that produced by compulsivity. The third and final section of the literature review establishes productive conceptualisations of the relations between human bodies and their environments in compulsive interactions.

Chapter 3 elaborates on the methodology of the study by explaining the research ethics, collaboration with the participants, and the application of the methods mentioned above. The chapter explains how the focus on the compulsive interaction has become embedded within social and material histories. It finishes with elaborating on the analysis of all data and in what ways it feeds into the results chapter.

The analysis is presented in Chapters 4, 5, and 6. Chapter 4 elaborates on the analysis of the data. It contains a reflection on the ways the medicalisation of the participants influenced the study, and an establishment of the compulsive condition as experienced to conceptualise it as a geographical phenomenon. Chapter 5 elaborates on how a geographical conception understands how the body and the extracorporeal are rendered by their mutual configuration towards the compulsive situation, and how these configurations are negotiated. Chapter 6 analyses how compulsive interactions constitute an ecology of particular body-object-space configurations that require compulsive interactions for particular kinds of stabilisations that have particular durations. These ecologies are explored on their effects on negotiations of compulsions and on human thriving beyond them.

Chapter 7 concludes the study by providing answers to the research questions, listing contributions to, and implications for, various aspects of geographies of medicalised performances, post-structural and postphenomenological approaches in geography, as well as for the medical and clinical sciences of Tourette syndrome.

The thesis finishes with offering a research agenda for future research on compulsivity.

CHAPTER 2   LITERATURE REVIEW

This study aims to reveal how bodies, objects and spaces permit, allow and even induce compulsive interactions, and how they are negotiated. In turn, it considers how spatial configurations of these elements as constituted by compulsivity may inform human spatial relations. In exploring these notions, the thesis turns to academic scholarship that provides insights in the performance and spatialities of compulsivity, perceptions and similar engagements with bodily environments. It does so by bringing together literature from a range of academic disciplines, whilst drawing mostly from a number of geographical sub disciplines. The chapter first turns to the medical and clinical sciences of Tourette syndrome (Section 2.1), and reviews its engagement with urge-driven compulsivity. This broad set of literatures, consisting of neuroscientific, psychiatric, and clinical psychological work, provides scientific insights into compulsive interactions and negotiations to date. Drawing on these literatures helps to establish what is known about compulsive acts, the urges that drive them, as well as in what ways bodily performativity and environments have been considered to affect compulsive interactions and their negations.

In the recognition that urge-driven compulsive interactions have not been considered outside these medical and clinical contexts, the next section (Section 2.2) explores these accounts with geographical literature on medicalised performances that bear similarities to compulsive interactions. The section develops the understanding of compulsive interactions and their negotiations by considering how these pathologized interactions have been rendered spatial, and in what ways bodily environments affect their constitution and negotiation. In addition to this body of literature, also literature on processes of perception is briefly explored to broaden the understanding of the ways in which modes of perception can inform how compulsivity may articulate in body-world encounters.

These findings feed into an engagement with more theoretical geographical work in Section 2.3 that allows exploring the spatialities of the performative and non-representational aspects of the compulsive interaction. Building mostly on post-structural and postphenomenological literature, the understanding of compulsive interactions is developed on its resonance with the bodily environment as mediated

through the flesh. To this end, this literature helps to establish the ways in which the bodily environment could be understood as affecting compulsions by decentring the human. All sections are laced with experiential accounts of compulsive interactions provided *as* scientific publications (Joseph Bliss, Micheal Kane, and Lance Turtle), *in* scientific publications (e.g. Eapen et al. 1994; Miguel et al. 2000), through autoethnographic work (Amy Wilensky, Nick van Bloss, and Peter Hollenbeck), and in short documentaries (Shane Fistell). This allows measuring the development of the argument against the lived experiences of those affected.

2.1   MEDICAL AND CLINICAL RENDITIONS OF COMPULSIVE INTERACTIONS

> THERE IS SO LITTLE OF THE GRAND OR NOBLE ABOUT MY CONDITION THAT, WERE IT IN MY POWER TO WAVE A WAND AND BANISH TOURETTE FROM HUMANKIND, I WOULD BE TEMPTED TO DO SO. YET, I HAVE TO WONDER WHETHER THIS ACTION WOULD TAKE SOMETHING OUT OF THE WORLD.
>
> - HOLLENBECK 2003, NP

As set out in the Introduction, this thesis aims to unearth how bodily environments affect compulsive interactions, how these interactions are negotiated, and what implications this understanding has for person-place relations. In order to formulate answers to these questions, literature on urge-driven compulsivity needs to be reviewed. To date, this phenomenon has only been studied in the medical and clinical sciences concerned with the Tourette syndrome diagnosis. However, as stated in the Introduction, this is problematic. Indeed, medical and clinical sciences are underpinned by positivist onto-epistemologies that produce knowledge of compulsions in terms of difference in *degree*, not *kind*. As such, these scientific renditions do not centre the *performance* of compulsive interactions, and do not necessarily engage with the *lived experience*, nor the *spatiality* of compulsive interactions. Therefore, this section reviews the medical and clinical literature in ways that helps establish compulsive interactions and their negotiations. This literature mainly consists of neuroscientific, psychiatric, and (clinical) psychological scholarship. It does so by presenting the rigid conceptual framework through which the sciences have captured compulsive interactions before turning to the first subsection. This contextualises, and highlights the problems this causes for, understanding the relevance of the findings in the medical and clinical literature.

Medical and clinical conceptualisations frame compulsions in line with the diagnostic system, which has major consequences as to what bodily acts are considered to be compulsive. The discourse guiding diagnostics involves a categorisation exercise of grouping collections of different acts commensurate with particular motivations in diagnoses. In turn, these collections are 'stabilised' as symptoms, and become associated with similar diagnoses. This categorisation exercise is exclusionary in essence, hence, what symptoms the Tourette syndrome diagnosis consists of cannot overlap with those consigned to the OCD diagnosis. As such, this framework provides direction for the approach medical and clinical research undertaken. Therefore, urge-driven compulsions tends to be part of scientific research on Tourette syndrome. The TS diagnosis currently consists of "hav[ing] two or more 'motor tics' (for example, blinking or shrugging the shoulders) and at least one vocal tic (for example, humming, clearing the throat, or yelling out a word or phrase), although they might not always happen at the same time" (DSM-5)[3]. As elaborated on in the Introduction, compulsive interactions have then mainly become rendered 'complex motor tics'. As such, already in these reductive conceptualisations, to date, the development of a richer understanding of compulsive interactions has been omitted (after Pilgrim 2007; 2013; Callard 2014).

First, Subsection 2.1.1 explores the medical and clinical literature on the current understanding of compulsive interactions with the bodily environment, as well as of their constitution from the perspective of the person performing them. Thereafter, Subsection 2.1.2 explores this literature in terms of the considerations of the effects of the bodily environment on these interactions, and identifies different kinds of negotiations. As such, this section establishes what it currently known about compulsive interactions, attending to Research Question 1, and what knowledge is available about the negotiations of compulsive interactions, which helps formulating answers to Research Question 2.

2.1.1 Acts / Urges

In order to understand the spatiality of compulsive acts, this subsection explores the medical and clinical literature, which is most relevant for this thesis, on its understanding of compulsive interactions and the ways in which they are constituted. It

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[3] The DSM-5 is the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition.

does so by providing an overview of what aspects of compulsive interaction have been studied, and in what ways the findings help construct a performative conceptualisation of compulsive interactions. In short, the medical and clinical literature conceive of compulsive interactions in the same way as it does simple tics that are shared across many people (e.g. eye-blinking and frowning).

An onto-epistemology with a lack of sensitivity towards difference in kind evokes medical and clinical literature to render compulsions 'highly idiosyncratic', in recognition that they vary strongly over time and between people (e.g. O'Connor et al. 1994; Verdellen 2007). Attempts to capture this idiosyncrasy expresses in broad categories; touching (e.g. pressing one's finger into the corner of a table, or clasping a mug), ordering (e.g. grouping similar objects, or repositioning objects into a new composition), and symmetry and evening-up performances (e.g. arranging objects and bodies in such a way that it brings balance, or continues lines in spaces) (Cath et al. 1992; 2001; Alsobrook and Pauls 2002; Mansueto and Keuler 2005; Palumbo and Kurlan 2007; Robertson and Cavanna 2007; Worbe et al. 2010; Neal and Cavanna 2013; Huisman-van Dijk et al. 2016; Sambrani et al. 2016). These categories are regarded to take place because of the specific material presence of the objects and space. Compulsive interactions can also involve counting (Alsobrook and Pauls 2002), 'self-injurious behaviours' (e.g. burning or cutting one's own body parts) (Robertson and Cavanna 2007; Robertson et al. 2008), and 'mental play' (e.g. visually aligning objects and people, and finger tapping on music) (Cath et al. 2001; Worbe et al. 2010). An example of the latter involves Shane Fistell compulsively blowing air close to Oliver Sacks' mouth because he had to 'touch' Oliver Sacks' breath with his own (Rawlence 1996).

Beste and Münschau (2017) argue that compulsivity does not articulate as a problem of the movements that constitute these unanticipated and unwanted interactions, but the very experience that they are unanticipated and unwanted. Compulsivity then differs from impulsivity (see Shapiro et al. 1988; Cath et al. 1992) and fidgeting (see Barash 1974; Farley et al. 2013; Mohiyeddini and Semple 2013; Mohiyeddini et al. 2013) which are closely related dispositions, but are fundamentally enjoyable when incited (Dalley et al. 2011; Voon et al. 2015). Furthermore, urge-driven compulsive interactions are suggested to occur alongside compulsions driven by obsessive thoughts, fear and anxiety on the basis of portending disaster (George et al. 1993; Miguel et al. 2000; Ferrão et al. 2012; Sambrani et al. 2016). Compulsive interactions that seek to instate a symmetry or a particular order also seem to be urge-driven only (Cath et al. 1992; 2004; Pietrefesa and Coles 2008; Worbe et al. 2010; Neal and

Cavanna 2013). The clinical literature thus suggests that these compulsions are distinctive experiences (see Mansueto and Keuler 2005).

The medical and clinical literature distinguish between three kinds of sensitivities that relate to the compulsive interaction; the urge to act, 'not-just-right feelings', and a heightened sensitivity of the bodily surroundings. These sensitivities seem to be creative of the person's disposition to compulsively interact with their surroundings, and with becoming more or less intense, they seem to create the conditions upon which a person decides to interact. The following conceptualisations are the result of empirical research that is severely dominated by male participants[4]. The urge to interact, or 'premonitory urge', 'itch', or 'pressure' (Kwak et al. 2003; Cavanna et al. 2017), have been argued to be the most important experiential aspect of compulsivity (See Figure 1). Joseph Bliss (1980) and Michael Kane (1994) explain that on some occasions, the urges are palpable, and that they perform tics for temporal relief from these urges. They can locate in the body parts that become involved in the compulsive acts, such as finger tips, hands, and lips (Patel et al. 2014), as well as in one's chest or head. Lance Turtle elaborates on his experiences of these urges:

> *The sensation is that of something welling up inside my head, or rather the premonition of something welling up inside my head, starting in the center, moving upward, and then seeming to then fly out of the top. The feeling will only fly out of the top of my head if I tic; this represents completion of the sensation and relief from it (Turtle and Robertson, 2008, pp. 451).*

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[4] Studies with a higher male participation include 19/22 male participants in Brandt et al. 2016; 16/19 in Belluscio et el., 2011; 99/118 in Capriotti et al. 2013; 7/9 in Conelea et al. 2008; 8/10 in Conelea et al. 2011; 399/672 in Conelea et al. 2013; 24/28 in Cohen & Leckman, 1992; 47/72 in Crossley & Cavanna, 2013; 288/400 in Eapen & Robertson, 2015; 70/100 in Eddy & Cavanna, 2014; 14/15 in Ganos et al. 2012; 9/10 in Goetz et al. 2001; 144/225 in Huisman-van Dijk et al. 2016; 34/50 in Kwak et al. 2003; 8/10 in Meucci et al. 2009; 12/20 in Miguel et al. 2000; 46/71 in Neal & Cavanna 2013; 15/23 in O'Connor et al. 2009; 33/54 in O'Connor et al. 2001; 311/410 in Robertson et al. 2008; 796/1032 in Sambrani et al. 2016; 10/14 in Silva et al. 1995; 11/12 in Specht et al. 2013; 13/18 in Sutherland Owens et al. 2011
Studies with consistent gender balance over the groups they studied include Cath et al. 2001 with 17/32, 5/10, 9/21 and 11/29; O'Connor et al. 2003 with 38/76.
Studies with a higher female participation include Taylor et al. 2014 with 310/534
Undisclosed in Worbe et al. 2010

Expressions of urge quality
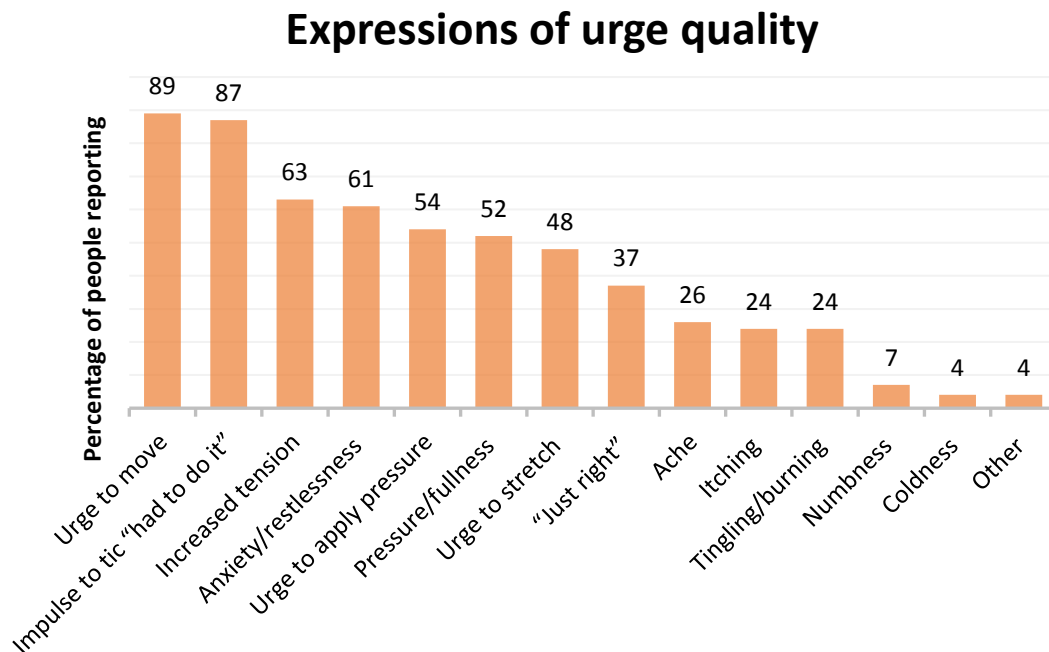
Figure 1: Kind of urge sensations reported by 46 people. Adapted from Kwak et al. 2003

Also narrating his personal experiences, Kane (1994) argues for understanding these urges as 'attentional tics', because they signal the location of the next compulsions, which also demonstrates in neuroimaging research (Peterson et al. 1998). Cavanna and Nani (2013, pp. 2) describe very similar sensations in relation to compulsive acts, and add that these are "driven by a force triggered by visual, auditory or tactile perceptions felt in the body, as well as feelings of imperfection about action and intention until the action is felt to be complete in the absence of any obsession, worry or fear" (see also Banaschewsky et al. 2003; Capriotti et al. 2013). However, this urge is not experienced by all affected people; 46 out of 50 in Kwak et al.'s (2003) study, and varies strongly per person. The same study reports 15 of the 43 to experience the urge before all tics, 9 before 75% of all tics, 8 before more than 50% of their tics, and 8 before more than 25% of all tics, and 3 before less than 25% of their tics. Whilst relatively 'simple' tics (e.g. eye-blinking) do not always seem to be preceded by urges, the relative complexity of compulsive interaction does tend to be urged by these sensations (Eapen and Robertson 2015). Delaying acting on the urge, or being teased or told to stop is experienced with an increase in discomfort (Leckman, et al. 1993; Woods et al. 2005; Conelea and Woods 2008; Conelea et al. 2011; Wang et al. 2011; Capriotti et al. 2013). These conceptualisations seem to already place an emphasis on

the urge being prompted by elements in the bodily environment. Indeed, according to Leckman and Riddle (2000, pp. 349) "[t]he range of these cues[5] is enormous but highly selective for individual patients – a cough, a particular word, an alignment of angles or specific shapes." These premonitory urges can therefore be regarded as directional towards the particular aspect of bodily environment having an influence on the body (see e.g. Miguel et al. 2000; Swain and Leckman 2005; Crossley and Cavanna 2013; Specht 2013; Cox et al. 2018).

Another sensory aspect related to the performance of compulsive interactions are called 'not-just-right' feelings. Claimed as distinctly different from obsession related feelings, these not-just-right experiences remain unqualified beyond a sense of rightness (Ferrão et al. 2012), or as a participant in Miguel et al.'s study (2000, pp. 153) explains, feelings of incompleteness and imperfection;

> *Worse than the obsessions is the feeling that there is always*
> *something missing of myself. Very rarely I get rid of this awful feeling*
> *that I am not complete, that I need to do something in order to fulfil*
> *myself.*

Similar to the urges, they tend to be experienced prior to compulsive acts, but are especially powerful during the performance, as these are experienced to indicate if the act is executed well enough and when it is finished (Leckman et al. 1994; Eapen et al. 1997; Worbe et al. 2010). As such, compulsions are often repeated until they are experienced as being executed *just right* (Leckman et al. 1993; Neal and Cavanna 2013). Examples include having to step through a doorway, and stepping on a flagstone just right. One of the participants in Miguel et al. (2000, pp. 152) elaborate:

> *I do not know why I have to check the door locks. I do not have any*
> *bad thought, image or fear. I just 'have to' come back and check them*
> *over and over again.*

Thus, contrary to urges that are felt in the skin, muscles, bones and/or viscera, not-just-right phenomena express as thoughts or feelings that are prone to exacerbate with stress and emotional instability (Neal and Cavanna 2013). These experiences then seem to signal *where* in the environment something not just right is located, *how* certain aspects of the environment feel 'wrong', and how to engage compulsively to make it right again.

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[5] 'Cues' refer to extracorporeal elements that coalesce or invoke Tourette symptoms in clinical literature

Yet another sensory aspect associated with compulsive interactions, as identified by medical and clinical sciences is an overall heightened sensitivity to the extracorporeal. Conceptualised as hyperattention (Kane 1994) or hypervigilance (Crossley and Cavanna 2013) describing the 'Tourette state' of feeling "pathologically 'itchy'" (Bliss 1980, pp. 806) it makes the person constantly aware of the sensory information that would fade away in less sensitive others. For example, remaining aware of the label of a sweater throughout the day, or a distortion in the pattern of the wallpaper, which can be highly debilitating (Kurlan et al. 1989; Cohen and Leckman 1992; Karp and Hallett 1996). Such sensitivity is prone to give rise to not-just-right feelings, and is argued to lead to heightened self-awareness and perfectionist styles of personal organisation (O'Connor 2002). It also expresses in people being bothered by light touches and preferred to be held firmly, with some even purposefully engaging in painful activities (e.g. pushing the skin back from under a nail) (Belluscio et al. 2011). Peter Hollenbeck (2003) elaborates on the challenges in management this causes:

> *Bright, shifting lights against a dark background exacerbate many of my other motor tics, so I go to great lengths to avoid driving at night. When this event is unavoidable, I stay off main streets where the noxious stimuli of streetlights and headlights await me.*

Patel et al. (2014) argue that the heightened sensitivity, or sensory intolerance, does not originate in enhanced detection in the sensory tissues, but from altered sensorimotor processing systems in the brain (see also Hollenbeck 2001; Leckman et al. 2006; Cavanna and Nani 2013, Cohen et al. 2013; Sutherland Owens et al. 2013; Houghton et al. 2014; Taylor et al. 2014; Schunke et al. 2016). Whilst debates are ongoing (see Cox et al. 2018), neurotransmitters are understood to process the intensity of sensory information in such ways that it foregrounds "the motor, somatic, and perceptual 'noise' that is constantly arising from our bodies and from the world that we perceive around us" (Leckman et al. 2006, pp. 646). This noise is filtered out of experience in non-heightened sensitive others (Abbruzzese and Berardelli 2003; Belluscio et al. 2011). Contrary to the urges, heightened sensitivity cannot be reduced by compulsive interactions according to Bliss (1980), but the ways in which people manage the sensitivity can provoke urges to emerge (Leckman et al. 1993; O'Connor 2002; Cohen et al. 2013). Similar to those diagnosed with Autism Spectrum Disorders (ASDs), this sensitivity can result in particular environments to 'overload' a person (caused visually by e.g. flashing and fluorescent lights and rapid colour changes) (Belluscio et al. 2011). It troubles the ability to make sense of sensory information, as

one or more senses 'shut down' (Williams 2005), and evokes one to retract into 'inner worlds' and become 'meaning-deaf' to their surroundings (Gerland 2003).

Whilst the vast majority of medical and clinical scientific literature understands these urges to be part of the body as any other kind of sensation, Karp and Hallett (1996) argue against this argument. On the basis of experiential accounts from other studies, they relocate these sensations from *inside* to *outside* the body (see Figure 2).

Location of urge sensation
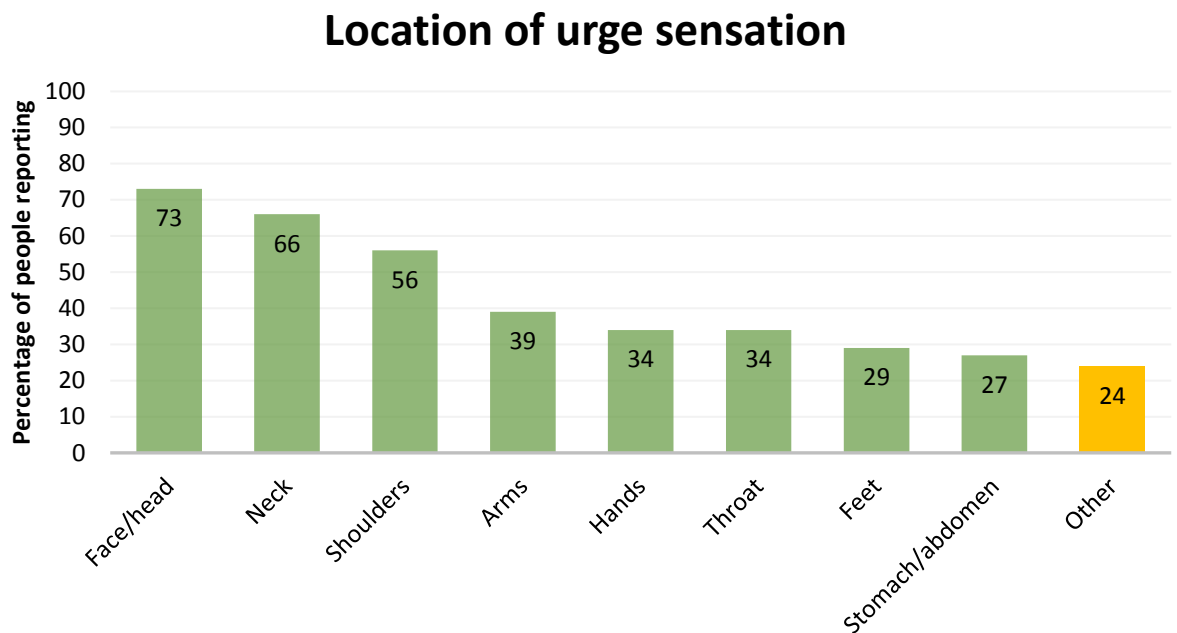
Figure 2: Locations of urge emergence mentioned by 41 people. 'Other' represents extracorporeal locations. Adapted from Kwak et al. 2003

Joseph Bliss (1980, pp. 1347) explains this as "a mental projection of sensory impressions to other persons and to inanimate or even nonexistent objects." For example, he would perceive a "firm cord running down the center [sic] line of the sheet. A need appears to apply pressure to this phantom cord by pulling" (ibid.). Bliss also describes *feeling*, not *touching* an object:

> *At times there is a recurring need while writing to press the pencil point hard against the surface of the paper. A 'feel' is perceived at the end of the pencil; in my mind, the point becomes an extension of the body, and the 'feel' at the point is translated into a TS-sensitised body site that demands even greater pressure until the point is broken. (ibid.)*

This phenomenon, conceptualised as exosomesthesia (Dieguez and Blanke 2011) resembles feelings arising in phantoms limbs, where the empty space the limb used to

be is not only recognised to belong to the body, but in case of a missing foot, one can actually feel the pressure of the floor again the phantom skin (Turtle and Robertson 2008). In effect, this experience captures a dispersal of sensibilities away from the body, in which bodily sensing capacities leave the body and take hold in elements of the environment. Bliss' experiences and that of others thus describe an intricate sensory entanglement with the bodily environment that cannot be captured in cognition alone (Kushner 1999).

The processes that constitute experience of the relations between the body and its environment are understood to expand on cognition with the plethora ways in which consciousness of the body is constructed. This consciousness forms a dynamic integration of sensory information with other modalities of perception, including proprioception (i.e. the localisation of the body in space), motor information (on its movements and posture), visceral information (on changes in its internalities) and vestibular information (on identification of its parts as belonging to the self) (Legrand 2006). This integration forms in effect the corporeal awareness, the body schema and coenaesthesia, and determines with desires, beliefs, memories and knowledge about bodies in general how a body is perceived (Dieguez and Blanke 2011). Disruptions, for instance in the vestibular system, could lead to heightened sense of place (Bonnier 1905 in Dieguez and Blanke 2011). Compulsivity might then have a biological root in this integration, which, in turn, may produce a kind of perception that creates the sensitivities for compulsive engagement.

In conclusion, this subsection provided an overview of the current understanding offered by the medical and clinical literature on compulsive interactions. This aided the thesis in conceptualising compulsive interactions, as well as their constitution from the human perspective. It identified the different categories mobilised in clinical research, and the sensory phenomena of the urge, not-just-right feelings and heightened sensitivity that are found to incite compulsions. Albeit implicitly, this demonstrates the resonance of these categories and sensory phenomena with the bodily environment. Therefore, this suggests that these sensory phenomena are of crucial importance in the particular unfolding of the performance of compulsive interactions. The next subsection develops these findings by highlighting how the medical and clinical literature have understood and conceptualised the effects of bodily environments on compulsive interactions. It also explores how this scholarship can provide insights in the negotiations of compulsions.

2.1.2 Environments / Negotiations

This section explores how bodily environments are recognised in the constitution of compulsive interactions. As commensurate with the scientific onto-epistemology that underpins medical and clinical research, effects of bodily environment have not been explored in depth (but see Cohen and Leckman 1992; Woods et al. 2009). As the previous subsection concluded, *implicitly*, the extracorporeal has been recognised as playing a role in the way compulsive interactions are constituted. For example, Conelea and Woods (2008) suggest that environments may play a role in the waxing and waning of tics and possibly also of compulsions, and Cavanna and Nani (2013) argue the extracorporeal works in both conscious and unconscious manners. To date, very few attempts have been made to conceptualise the extracorporeal (see Goetz et al. 2001), which is unfortunate, because experiential narratives of Bliss (1980), Kane (1994), and Hollenbeck (2003) *explicitly* argue the bodily surroundings to be of importance in the expression of their urges-driven phenomena. These accounts are analysed in the other two sections of the literature review. In these medical and clinical sciences, the concept 'environment' itself captures anything outside the brain and nervous system, and can include food, medication, in addition to the broad categories of the social and activities and spaces these are associated with. As the latter two instate interactions between the body and its environment, the literature on these matters are explored further.

Activities such as eating, studying, working, and reading are often bound to specific places and spatial situations and seem to affect all urge-driven movements and utterances (Christenson et al. 1993; Othmer 1996) in addition to cognitive processes (O'Connor et al. 2001). The situation of the body is understood to limit the range of possibilities, for instance doing computer work in one room permits having to order items on the desk and prevents having to touch the stairs (Miltenberg et al. 1998; O'Connor et al. 2003). Additionally, quiet activities in classrooms, such as reading tasks, have been found to increase tic frequency (Watson et al. 2005). Also the absence of activities in the presence of boredom and stillness of the body is associated with an exacerbation of tics, which may include compulsive interactions (Robertson et al. 2002; Eapen et al. 2004; Barnea et al. 2016; Godar and Bortolato 2017). Although not remarking on an inclusion of compulsions, Silva et al. (1995) conducted a study seeking to identify differences in tic frequency and severity related to 'environmental factors'. It included very broadly defined, overlapping activities that severely differed in duration. Examples included sports, talking to a friend, living away from home, and being alone. Despite their results being largely inconclusive, differences in bodily

environments did articulate a difference in tic performance. However, the study does not analyse or suggest how these differences could be understood in terms of bodily environments and urge management, or what consequences this has for the origins of urge driven phenomena, including compulsive interactions.

The few clinical studies that do register a difference in kind, report it as a side effect of a particular methodology, or conceive of it as a case study that serves as illustration (e.g. Mansueto and Keuler 2005). The former occurred in the study of Goetz et al. (2001) who tested a video method as enhancing tic treatments. In addition to performing a fourfold of tic frequency, their participants performed different kinds of tics in the 'home' environment compared to the 'doctor's office' environment. These different kinds of tics were mainly performed when the participant was alone, which was attributed to the shame they caused. The video method rendered the body static, which therefore could not capture any interactions that would be performed when mobile.

The latter occurred in Eapen et al.'s (1994) study, which describes a woman affected by coaches. Seeing, or even just imagining one resulted in her having to close her eyes, count to 10 in a number of ways, go home, shower, and change her clothes. It also reported a man who had to rub something when touching another person, as well as touch and fold objects. Leaving the spatial circumstances largely unchallenged, it argues for considering a continuum between 'internal and external stimuli'. Remarkably, compulsive interactions are claimed to originate in 'internal stimuli' (i.e. tingling feelings in the body or urges), whilst tics were found to originate in 'external stimuli' (i.e. hearing a cough) which would be conceived of as echo and coprophenomena[6]. Thus, differences in kinds of compulsions (and tics) that seem to be related to the environments they take place in seem to be analysed on cognitive and sensory terms, and not on environmental terms. Furthermore, places with specific cultural norms are prone to invoke compulsions, such as having to touch a painting in a museum. Cohen et al. (2013) describe a physicist who, during WWII, had to quit his job because whenever he saw the sign "Danger High Voltage," he had the strong urge to touch the machine. Such findings point at the direct surroundings being associated with an increase in frequency and severity of compulsions.

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[6] Echo-phenomena assemble echolalia; repeating sounds voices or words vocally, and echopraxia; repeating another person's movements. Coprolalia involves swearing and using inappropriate language to the situation, and copropraxia captures making obscene gestures, such as pulling the finger, and doing the Nazi salute.

Negotiating compulsive interactions both often results in stress, anxiety and frustration (e.g. Bornstein et al. 1990; O'Connor et al. 1994; Silva et al. 1995; Robertson et al. 2002; O'Connor, et al. 2003; Woods et al. 2009; Eapen et al. 2004; Conelea and Woods 2008b; Singer 2013). This articulates in daily life, rather than major life events (Findley et al. 2003; Conelea et al. 2011; Springer 2013), and on an hourly (Silva et al. 1995; Leckman et al. 2006), rather than weekly basis (Silva et al. 1995; Hoekstra et al. 2004). The articulation of temporality in negotiating compulsive interactions in medical and clinical literature is further reinforced by effects the presence of particular other people can have. Depending on the understanding familiar people of a variety of social relations have of compulsive interactions (see Meucci et al. 2009), compulsions are being suppressed or not (Capriotti et al. 2013). In the presence of unfamiliar others, those afflicted are found to suppress more often, which in turn increases the urge sensations (Leckman and Cohen 1999; Goetz et al. 2001; O'Connor et al. 2001; Specht et al. 2013). Social tensions that cause one to suppress can be so pervasive that, for instance, Nick van Bloss (2006) only felt comfortable enough to perform his compulsive interactions in an unrestrained manner alone in his bedroom. Indeed, the immediacy of a situation also pronounces an increase in frequency and severity in heightened anticipation (Wood et al. 2003), thermal stress (Lombroso et al. 1991), and mornings (Silva et al. 1995). None of these studies make distinctions between different kinds of compulsive interactions.

Negotiations of compulsive interactions in the medical and clinical literature is offered on a structural basis through pharmacotherapy and Cognitive Behavioural Therapy (CBT), and on a momentary basis with behavioural therapies, and bodily adjustments. The kind and circumstances under which such strategies are mobilised may also reveal what elements of the surroundings are most poignant and difficult to cope with. No specific traditional medicine has been developed for urge-driven conditions, therefore drugs[7] with pervasive effects are prescribed (see Lombroso and Scahill 2008; Shprechter and Kurlan 2009). Success rates vary strongly, and it is not (yet) clear how medication works, but testimonies include the experiential reduction in amount and severity of all sensory phenomena and thus compulsive interactions, as well as weight gain, apathy, and lethargy (Verdellen 2007; Shprechter and Kurlan 2009). In some countries, cannabinoids containing Tetrahydrocannabinol (THC) can also be prescribed. To date, they have found to be inconsistent but promising in their seemingly more targeted influence, and causing less general apathy compared to

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[7] These include dopamine receptor blockers, neuroleptic and a-typical antipsychotics, and depend on the kind and multitude of diagnoses.

traditional medication (Müller-Vahl et al. 2003; Curtis et al. 2009; Müller-Vahl 2013). Pharmacotherapies would therefore suggest that the experience of one's body and its surroundings is a crucial aspect in the performance of compulsive interactions. CBT attempts to breaks the psychophysiological chain between urges and compulsive interactions through functional analysis and management of this relation (Verdellen et al. 2004; 2007; O'Connor et al. 2009). This therapy does therefore not regard compulsions as 'loss of control' over the body, but as fulfilment of perfectionist needs that coincides with not-just-right feelings (O'Connor et al. 2002). As such, CBT would suggest that disorder *as such* is found to be easily problematic.

Behavioural therapies Habit Reversal Training (HRT) and Exposure/Response Prevention (E/RP) take a more momentary, embodied and affective approach to negotiating compulsive interactions. In both therapies suppression is rewarded and disruption of compulsions is encouraged (Shprechter et al. 2009). HRT provides a set of bodily techniques to prevent compulsive movements, such as keeping the arms folded tightly together when the urge emerges to touch something (Azrin and Nunn 1973). With this therapy, people are encouraged to immobilise the body in such a way that it restricts responding to the urge. E/RP also aims to interrupt the urge-compulsion sequence by tolerating the uncomfortable urge sensation (exposure) until it fades away (response prevention) (Verdellen 2007; Verdellen et al. 2008). Through practice the discomfort of urge sensation is found to decrease in both therapies (Specht et al. 2009). As such, they are punitive measures for compulsions in the ways they provide bodily means to intervene in compulsive processes, and promote 'self-control' (see Miltenberger and Fuqua 1985; Mansueto and Keuler 2005). Recently, relaxation techniques, including mindfulness, that also promote urge toleration also report early successes (Reese et al. 2015; Gev et al. 2016). In effect, they desensitise the person to sensory phenomena, and thereby reduce compulsions (but see Houghton et al. 2017). As such, these therapies focus on the urge, and the way compulsivity is performed is less important, as the movements themselves are not found to be the problem (see Beste and Münschau 2017). Nonetheless, these coping strategies can only capture compulsions that become visible with static bodies in clinical settings, easily captured in words, and resemble tics in their short duration and lack of complexity. Therefore, these professional strategies locate negotiations of compulsions entirely with the body and cognition. As such, potential environmental elements that could help coping have not been considered.

In the ways those affected have learned to negotiate their compulsive interactions, the environment is acknowledged and actively used. Basing his study on participant experiences, O'Connor (2002) conceptualised three strategies; 'containment', 'correction' and 'concealment'. During containment, compulsions are suppressed by, for instance, adopting a posture that prevents the performance. When correcting, compulsive movements are redirected into other-than-compulsive acts. With concealment, compulsions are performed whilst not appearing compulsive, are hidden underneath baggy clothes, and work through people avoiding a situation in which compulsions might have to be performed. Indeed, 38.4% of participants in Conelea et al. (2013) study even actively avoid public places, and Peter Hollenbeck (2003) avoids using a phone because he finds it very difficult to speak whilst calling, which requires him to visit colleagues in their offices. With correction and concealment those afflicted assert that "If I keep it in, it will build up and I'll have to let it out later one way or another since I can't contain it." (O'Connor 2002, pp. 1134). The individual practices people adopt thus register a far more active use of the situation and the bodily environment than professional medical aid; both in terms of negotiations of urges and compulsion performance, and in terms of anticipation of compulsive interactions. Potentially problematic in the consideration of bodily surroundings is that professional therapies reframe compulsive interactions in such a way that environmental attendance is no longer regarded a coping strategy.

2.1.3 Section conclusions

Conceptualisations of compulsive interactions in the medical and clinical sciences, to date, have consisted of broad categories that reflect them as *action* rather than *interactions*. Such conceptions holds people entirely responsible for their performances, which is at odds with the experience of the sensory phenomena. Especially the urge to compulsively act being experienced to locate in a range of body parts as well as in the extracorporeal, if experienced at all. Studies in the medical and clinical sciences demonstrate a limited understanding of, and analytical interest in, bodily environments affecting compulsive interactions, despite implicit invocations of potential impact. Indeed, some bodily environments, such as the home as social and familiar space, seem to invoke or allow compulsions to be performed. Nonetheless, in line with the scientific onto-epistemology, bodily surroundings are understood as inert and passive, and differences between places are treated as a given. Furthermore, the kinds of activities the body becomes involved in seem to have a directional effect on

the compulsions that are made possible, as well as the way in which the body is experienced. This immediate and situated appreciation of the body is also used in the ways those affected negotiate their compulsions, despite articulating far less in the professional medical support offered.

The kind of scientific research that compulsive interactions have been part of focuses strongly on elements that can be – or otherwise have become – measurable and correlative – rather than causal – in relationship. In addition, its evidence-based premise that prioritises observation over experience, as well as its assumed universality of the body – and brain – produces a particularly thin, broad, and therefore vague consideration of the compulsive interactions, which is not particularly informative for this study. Indeed, the medical and clinical sciences have conceptualised compulsivity as an exclusively cognitive – rather than affective – phenomenon (Hacking 2010). Whilst this has shaped a language that successfully captures the doctor's and therapist's working practices, it has failed to extend beyond these into the greater experiential dimension (Bankey 2004; Greenhough 2011) and apprehend compulsive interactions in their complexity (Clegg et al. 2013). The hesitation of the medical and clinical sciences to study difference in kind of compulsions and quality of urges, leaves a large gap that this study might contribute to filling up. An emphasis on kind through an experiential and spatial onto-epistemology may change this.

In responding to the research questions, this literature suggests that compulsive interactions are mainly performed as touching, ordering, symmetry seeking acts, and mental play, and involve objects. They are sustained by three sensory processes, are suggested to respond to particular kinds of spaces, with an extra sensitivity to the home. Also, negotiations identified seem to take place through situations of the body on the basis of visibility, abolishing particular interactions, and reducing responsiveness to the urge, in which the bodily environment was not regarded to play a role. As such, this literature suggests that the compulsive aspect of the interactions is mediated through the body and that experience plays an important part in the unfolding of compulsive engagement and its negotiation. The next section develops these findings further by exploring in what ways a geographical approach can help conceive of the effects of bodily environments on compulsive interactions, as well as their negotiations, and how this informs conceptions of person-place relations. Particular attention is paid to the embodiment of the interactions and how the bodily environment comes to appear during compulsions.

2.2   EMBODYING COMPULSIVITY AND PERCEPTION

The previous section has analysed compulsive interactions through engagement with the medical and clinical scientific literature. This research suggested the broad categories, the involvement of sensory processes, and the probability of effects of the situational circumstances. This literature placed the responsibility of compulsive interactions, and therefore also their negotiation, exclusively with the human. Such lack reduces those who engage with their surroundings compulsively to their brain, collections of behavioural measures, and diagnoses, and ignores intricate knowledge of their body and its constituencies. In effect, this is largely at odds with experiential accounts, and omits possibilities to engage with the effects of bodily environments in a geographical sense, which is the aim of this thesis. In order to understand how compulsive interactions are performed and negotiated, the study turned to experiential and spatial dimensions in human geographical literature. As argued in the Introduction, human geographical work is underpinned by the conviction that phenomena can be explained by their spatial embedding (Holloway and Hubbard 2000). In particular, with a well-established interest in the spatial processes that involve the body, could further inform the thesis.

This thesis focuses on compulsive interactions that are analysed on the spatiality of their constitution and effects, as well as on the conditions upon which the negotiations of the interactions take place. Therefore this section does not analyse existing geographical scholarship on spatialities *involving* or *about* compulsions, which includes geographical literature that discusses spatialities of disability, abnormality and ill-health *as such* (see e.g. Pinder 1995; Kobayashi 1997; Gleeson 1999; Corker and Shakespeare 2002; Michalko 2002; Price and Shildrick 2002; Barnes and Mercer 2004; Curtis 2004; Watson 2004; Gregory et al. 2009). Rather, this thesis explores how compulsive interactions *emerge from* and *produce* spatialities, and how they are formed by, related to, and reflect the embodied situation (see e.g. Iwakuma 2002; Moss and Dyke 2003; Philo 2007; Bissell 2010; Chouinard et al. 2010; Davidson and Henderson 2010; MacPherson 2010; Schillmeier 2010; Duff 2011; Andrews et al 2012; Hall and Wilton 2016).

The medicalised dimension of compulsive interactions has sparked very little interest in non-medical academic disciplines. This includes human geography, as compulsivity or urge-driven phenomena have not explicitly been part of geographical enquiry (but see Davis et al. 2004, and Segrott and Doel 2004). Therefore, the spatial and experiential dimensions of medicalised bodily performativity that bear similarities with compulsivity

help explore in what ways compulsive interactions are constituted and negotiated, and what this might teach us about person-place relations. Therefore, the following review of the geographical literature allows for the preservation of potential differences in kind of performance and experience thereof, as well as their momentary and situational aspects. Subsection 2.2.1 does so by focussing on empirical research into medicalised bodily performativity that shares aspects with compulsive interactions. These include urge-driven tics, fear-driven compulsions, sensory overloads in those with ASD, and overwhelming environments in delusions and phobia, and have been explored through a range of phenomenological epistemologies in which the body takes a central role. They seek to map the embodied life worlds they produce to unearth 'alternative' ways of 'knowing the world' (Wilton 1998; Chouinard 1999; Hansen and Philo 2007; Davidson and Orsini 2013). Subsection 2.2.2 develops these insights by rendering them through processes of perception. For instance, Temple Grandin (2005, pp. 67 in Despret 2013) argues to take autistic experiences of the world serious as "We're seeing, hearing, and feeling all the things no one else can", which can challenge "the often taken-for-granted ways in which we inhabit our bodies, construct boundaries and make creative use of the world around us." (Segrott and Doel's (2004, pp. 610). This supports the thesis by identifying how the bodily environment comes to appear and how it becomes affective.

2.2.1 Medicalised performances and spatial experience

In the absence of geographical engagement with compulsive interactions, this section explores medicalised conditions that share certain aspects of compulsivity. These conditions are mainly derived from their recognition as closely related from a diagnostic perspective, but also in terms of shared aspects of life worlds. The geographical analysis of these conditions is explored and related to experiential accounts of those performing compulsive interactions. The only geographical engagements with Tourette syndrome registers motor and vocal tics. As part of a social geography, they have been conceived of as disruptive "to the order and health of public spaces" (Davis et al. 2004, pp. 104). Buckser (2006; 2008) drawing on this implicates the situational in exploring the effects of the unintentional appearance of tics. These studies demonstrate how 'ticcing bodies' are perceived by 'non-ticcing' bodies, and flag up what social dimensions negotiations of compulsions might be based on. The more disruptive the tics are, and the less intentional they look, the stronger disapproving responses might be. Even when such response is not as strong as expected, the anticipation already

intensifies the urge suppression anxieties in order to adhere to the "script of a healthy body" (Davis et al. 2004, pp. 111). By extension, this would suggest that compulsive interactions invoke different responses, which, in turn, can be anticipated and on the basis of which become suppressed. Unfortunately, there is no geographical or remotely spatial social scientific study on urge-driven phenomena. The following literature attends to similar medicalised performances, which includes fear-driven washing compulsions, heightened sensitivity as experienced by those with a ASD diagnosis, mania, as well as agoraphobia, delusional perceptions of, and toxic relations with the bodily environment. This informs the thesis by the spatial and experiential conditions upon which urge-driven compulsions and their negotiations take place

Anticipation also seems to be a key part in fear driven compulsions performed by those with an OCD diagnosis. Segrott and Doel (2004) focussed on washing compulsions driven by fears of contamination by regarding the expression as embodied spatial practices in everyday places. They translated these practices into the use of spaces and objects in a creative sense, providing an intricate picture of daily struggles in the house, as well as public spaces. For instance, 'OCD sufferer' Jane (Ibid. pp. 602-603) had to take off her shoes and clothes, place them in a bin bag in the hallway and throw away the food she had bought. She had become convinced that she had stepped in dog excrement and that this had contaminated the food, so she had to retreat to bed because she only feels safe there. It demonstrates the extent to which fear compels people to perform these compulsions to feel as comfortable as possible.

Washing compulsions thus seem to be profoundly spatial in their articulation of relations between the body and the house, as different body parts and house 'zones' become involved at different times and rhythms of the day. Additionally, spaces of 'high circulation' such as the library and public transport were therefore incredibly hostile environments for Jane. The accumulation of compulsions as well as the anticipation for them then actively creates 'geographies of fear', around which the body, other people, objects and other aspects of daily life become meticulously organised. As people who perform urge-driven interactions emphasize the repetitive and routine aspect of their compulsions (e.g. Eapen et al. 1994; Shane Fistell 2012), perhaps such 'zoning' of places and 'compulsive associations' with objects are not unthinkable.

The study demonstrates that although washing compulsions seem excessive and irrational, they are produced within a set of relations stemming from fears that do not differ very much from other-than-compulsive fears. However, as Segrott and Doel (2004) argue, "the difference between efficacy and excess is over-determined by the

difference between choice and necessity" (p. 599). Nonetheless, conceptualising compulsions as spatial practices renders them purposeful and wanted beyond abolishing fear. Additionally, this does not reflect experiences of Bliss (1980) and the other person in Karp and Hallett's (1996) study, who feel overpowered by objects that become part of their urge-driven compulsions. Such conceptualisations, therefore, regard compulsions to be instigated entirely by the human, and the objects with which they take place static and uninfluential to the constitution and negotiation of compulsions outside the direct interaction.

People with an ASD diagnosis report sensory experiences similar to those performing compulsions. Especially autobiographical narrations on feeling overwhelmed by, and becoming 'meaning-deaf' to, the bodily surroundings. This produces difficulties in the comprehension and prediction of environments because of their apparently incessantly changing appearance. Davidson and Henderson (2010) argue that spaces fail to form a unity as objects between themselves do not seem to relate in any way. As a result, these people do not only have difficulties in positioning themselves in environments, but also relating these to other environments (Mills 2008). This "is like living in a social and environmental fog" (Darius 2002, pp. 18, in Davidson and Henderson 2010), in which any kind of meaningful performance feels out of place. These relationships are forged, but then in a way that does not involve meaning, as Gerland (2003, pp. 21, in Davidson and Henderson 2010) explains: "If my mother said something in a violet-coloured way in the kitchen and two months later used that violet tone of voice in the bathroom, I suddenly realized that the kitchen and the bathroom had something to do with each other." Spatial perceptions on the basis of sensory processes are better indicated with spaces rather than places, as the meaningful aspect that makes space a place is absent (see Massey 2000; Cresswell 2004). These rich and materially very detailed conceptions of spaces also reflect how Van Bloss (2006) and Kane (1994) perceive spaces; as made up of object collections and details of spaces that may or may not be *just-right*. When not overwhelmed by their surroundings, those performing urge-driven compulsions do not seem to have problems recognising spaces.

Other medicalised experiences of environments that have effects on people conceptualise different dimensions of embodied person-place relations that may indicate how compulsive engagement could be thought of. Mania, which is a phenomenon experienced by those diagnosed with bipolar disorder, can see people perform interactions that seem irrational (Chouinard 2012). Hornbacher (2008, pp. 38) describes

My mind is racing ahead and I chase it, writing as fast as I can, failing heart stuttering, body disappearing. I can do anything. Nothing can stop me. I'm a flurry of motion, sitting on the floor of my bedroom arms flying, shuffling papers into piles, brain racing, reading snippets of writing… Making rapid little red-pen marks on the pages, cutting and pasting, short of breath, pulse pounding, I am back in my element, where I can do a thousand things at once, fuelled by the rabid energy triggered by the booze, no food, no sleep.

It seems to be an account of a body that is entangled with its constituencies in ways that do not serve a purpose beyond the manic situation, and in which objects seem to channel the energy of her 'racing' mind. A compulsive interaction might evoke similar experiences, but last a lot shorter.

In agoraphobia, surroundings are experienced to impose on people in their invocation of disturbing "sensation[s] of infinite vastness" (Blodgett 1887 in Callard 2006, pp. 876). Spaces seem to be experienced as undefinable and unbounded entities that torment people in the exposure it forces upon them (Davidson 2007). Especially larger, open spaces seem to paralyse the body and prohibit its performativity to do anything other than leaving it (Davidson 2000a; 2000b; 2003). Compulsive experiences might align here in the way the relation between the body and its environment evokes such a powerful response, and is mediated to reduce the anxiety. Hester Parr (1999) studied people who experienced harrowing delusions in which the spaces they resided in became so pervasive that they erased the experience of having a body in the space they resided altogether, which induced doubt over one's very existence. Perhaps delusional experiences might resemble the feeling of the urge when it emerges in an object; what materiality belongs to the body and what to the objects and space one is in might refrain from becoming clear.

Geographical literature on similar interactions and experiences have registered a plethora of negotiating practices that mobilise the bodily environment in a number of ways. These practices also include taking medication, which according to ASD author Lawson (2005, pp. 67 in Davidson and Henderson 2010) feels as if "[her] very lifeblood felt sucked dry and [she] had no desire to relate to anyone or anything". She argues that it 'turned down the volume' of her experiences: not just the sensory dimension, but also the emotional one. This is very similar to how Tourette's authors Amy Wilensky (1999) and Nick Van Bloss (2006) express their experiences of taking medication. Negotiation practices also include managing the presence of more or less familiar people in particular places. Those with fear-driven compulsions may ask others they share their house with to comply with particular systems and rules by not altering object

arrangements that can disrupt routines, or actively participating in these routines (Segrott and Doel 2004). A culture around objects and spaces might not be relevant in urge-driven compulsions apart from instances in which household members become part of them. Suppression helps negotiating public spaces with many unfamiliar others (Wilensky 1999; Davis et al. 2004) as every twitch or noise opens up possibilities of others to comment on the expressed behaviour (Handler 1998).

Objects have also been identified as central to negotiating the performance of unwanted acts and/or mediating adverse experiences. In ASDs objects are used to retain a focus on the body in order to cope with the anxieties of not knowing environments. In addition to humming softly (Lawson 2005), this can involve keeping the body in motion by body rocking (Cowhey 2005), and holding familiar objects in sight (Davidson 2010). In the case of obsessive washing compulsions, objects become ordered by their levels of dirtiness or enact a regime, and in turn, render spaces more or less contaminated, which determines the kind of activity possible (Segrott and Doel 2004). Well-ordered and systematic placements of objects diminishes fears because a disordered system resembles a dirty system that allows for contamination (Douglas 1966, in Segrott and Doel 2004). Also, stemming from a shared visual hypersensitivity to patterns with OCD (O'Connor 2002), urge driven compulsions 'restore' the organisation of environmental elements in accordance to these patterns. Accordingly, objects that act in a system, being rationalised, become de-animated, de-spiritualised and denied of the capacity of a subject (Bauman 1992). Indeed, centralising the scattered effects of visually disordered objects by placing them in a group diminishes the influences of individual objects; a strategy also recommended for autistic people (Williams 2005). Granting the possibility for controlling and predicting spaces, other-than-compulsive ordering seems to decrease tension (Davidson 2003; Segrott and Doel 2004).

These adverse experiences and having to perform unwanted acts in these studies reflect negotiations of these disturbing acts in terms of person-place relations. This differs from the strongly bodily oriented negotiation practices the medical and clinical sciences have argued compulsions to invoke. These spatial relations articulate strongly in the case of Environmental Illness (EI), which registers individuals to "react adversely to everyday chemicals in the environment at levels politically conceived to be 'safe'" (Coyle 2004, pp. 62). Those affected manage their sensitive body *by* managing their environment by modifying it to such an extent that it is considered a 'safe space'. Only in such a space, which "should ideally be stable, predictable, controllable and

communicative (Coyle 2004, pp. 62), these people can thrive. Although this condition is not necessarily related to bodily interactions in the same way as compulsions are, it may suggest that altering environments may help to reduce compulsive engagements. Indeed, as O'Connor (2002) remarked, many of his participants follow strict routines, so as to exert as much control over the situation as possible.

The geographical literature on medicalised conditions is mostly based on psychoanalysis, in which actions and experiences are interpreted. Nonetheless, compulsive interactions as well as the sensory phenomena seem not to be analysable in this way. Apart from the confusing not-just-rightness (O'Connor 2002) and the allusion to perfecting the execution of compulsions, they are not perceived as troubling the self beyond not wanting to perform them (Robertson 2000). Compulsions are then also not a matter of 'bodily control', for they are performed *voluntarily* and *only* in response to an urge that is not psychosomatic. Hence, psychoanalysis of compulsions does not help understanding their spatiality (Kuschner 1999). Only the *effects* of particular compulsive engagement might then be understood to relate to the self, for instance, compulsively touching or ordering other people (see Van Bloss 2006).

This subsection expanded on a number of ways in which the different medicalised sensitivities, performances, and anxieties orchestrate daily life with a condition related to compulsivity. This geographical literature contributes to understanding the experiences of the body, objects and spaces during the moments in which compulsivity and related conditions articulate most strongly. As these studies are conducted in social and cultural theoretical traditions, they are focused on the anxieties, rather than the actualised bodily performances from which these anxieties stem. The rich experiences of performing medicalised acts in the spaces they emerge with suggests that the way the bodily environment comes to appear is crucial in the unfolding of medicalised performances. For Research Questions 1 and 2, this suggests that compulsive interactions could be conceived to be related to the particularities of objects and spaces, and these may be directional in the ways in which these relations are negotiated. With regards to Research Question 3, this section suggests that compulsive interactions might be resonating strong situational attractions and repellences. As this body of literature suggests that the experience of the particularities of objects and spaces excite these effects, the next section explores literature that engages with the bodily environment through processes of perception. This allows conceiving how object and space particularities relate to bodily capacity and come to articulate in compulsive interactions.

2.2.2 Bodies / Perception

In placing experiences of sensitivities and performances related to urge-driven compulsive interactions, this subsection reviews literature on the bodily aspect during the performance. In particular, it reviews literature on the ways in which bodies[8] are perceived to relate to their environments during action. As such, this subsection reviews the literature to understand how compulsive interaction might emerge from processes of perception, and, as such, 'find entrance' in other-than-compulsive life. The section does so by retrieving bodies from their medicalisation and the diagnostic structures through which the experiences in the previous subsection have been conceived of. In phenomenologically oriented literature, bodies become the means to knowing the 'self' through their sensory, affective perceptual markers that instate relation with other human beings, objects, spaces (e.g. Seamon 1980; Rose 2006). However, in compulsive interaction with these extracorporeal entities such markers precisely do not register the self, as this kind of engagement does bear no semblance to memory, or coherency, of a subjectivity. Even the potentially repetitive aspect of compulsions which would catalyse knowledge of the self (Degnen 2013), they seem to produce the opposite: a rupture in self-knowledge. Indeed, compulsive engagement is characterised by its experiential lack of recognisable associations with other humans, objects or spaces (see Bliss 1980).

The rupture in self-knowledge through the body occurring with the urge emergence and compulsion being performed can be analysed through Leder's (1990) conceptualisations of the *corporeal field*, *corporeal foci* and *focal demands*. Corporeal foci invokes the collection of locations on the body that require attention during an activity (e.g. fingers whilst touching). The corporeal field entails all possibilities for corporeal action, which can be divided when multiple actions take place at the same time when focal demands compete (e.g. driving and cooking) versus focal demands that do not (e.g. writing and eating). Leder draws on Ricoeur (1966) who argues that the body recedes from conscious experience and into the object the action is performed with, and Zaner (1981) who claims that body parts that are not involved in an activity enlist in a background attitude and leave awareness. Compulsivity would

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[8] This study is in the full acknowledgement that a generalised understanding of 'the' body does not exist (see e.g. Butler, 1990; Haraway, 1991; Gatens, 1991), and that any invocation of such generalisation is truer to a more masculine, heterosexual, white, middleclass experience of bodies (see Longhurst, 2010, Stark, 2016), as a feminist and racial 're-culturing' of bodies has not taken place in the medical and clinical sciences and in many philosophies of consciousness. This study does not seek to further universal invocation of the body, therefore, it refers to the body in the plural where such considerations are required.

then express in two ways. First, other-than-compulsive activities that require a specific set of corporeal foci, effectively 'silencing' others, sudden urge emergence redirects focus to the body part – or extracorporeal entity – in need of compulsive engagement on the other-than-compulsive activity. Secondly, some corporeal foci seem not to recede from experience; mainly pertaining to those involved in touching (Karp and Hallett 1996). Problematic is the rather territorial understanding of the body and its constituencies, as well as the lack of appreciation for difference in kind of both bodily activity besides competitiveness, and bodily context.

Compulsive interactions thus seem to be enrolled in perceptive processes that happen entirely outside the self, but are crucial in the ways in which the body relates to its environs. For instance, Plügge (1967 in Leder 1990) argues that environments perceptually change with the bodily condition; during tiredness environments lose attractiveness and variety. These processes are experienced as being mobilised by their own sets of demands, power, and temporalities (Leder 1990), and constitute what Ricoeur (1966) calls, the 'corporeal involuntary'. With a number of caveats, experiences of compulsivity could be regarded to share the experience of pain on its episodic structure, sensory intensification and its enduring and undeniable presence (Leder 1990). Additionally, it disturbs the openness of the self to the world by redirecting one's focus from the extracorporeal to the inner body; "As [pain] pulls us back to the here, so severe pain summons us to the now" (Ibid. pp. 75, emphasis original). Compulsivity might therefore be regarded to constitute its own subjectivity, such that affected bodies may experience 'split subjectivities' (e.g. as experienced in pregnancy and voice-hearing). Compulsive subjectivities that unfold with the interactions could then be experienced as being bestowed on selves in addition to bodies. In addition, studies by Land et al. (1999) and Hayhoe et al. (2003) suggest that in a 'cluttered' environment the corporeal field narrows and reduces the possibilities for organising other-than-compulsive life alongside compulsions, which would put more pressure on the person to negotiate compulsive engagement.

Through the diminished experience of a dominant self in compulsive engagement, the body could be conceived of to 'revert' from *leib*, as the embodied self, to *körper* (Fleissner 2007). Körper indicates the material form, and functional machinic entity that also includes the bodily unconscious (Leder 1990). Whilst the rendition of the body as körper could be the one medical and clinical sciences conceive it as; contrary to its ontological containment within the skin, the processes of perception turn bodies outward towards its environs. This suggests another plethora of ways in which bodies

performing compulsive interactions cannot be understood without an analysis of its embedding in the material environments. Reversions between the experience of leib to körper in compulsive interactions may then help conceive of the experience of being urged to perform compulsions. The disruption it creates with other-than-compulsive acts could be understood as expressing in an ongoing alignments of corporeal and extracorporeal sensations, and an ongoing 'dance' of intermingling wanted and unwanted movements.

For this study, this suggests that processes of perception underpin compulsive interactions. Indeed, literature on perception allows attending to the sensory processes that seem to support and sustain compulsive interactions, as well as form the premise on which negotiations can be decided. Nonetheless, conceptions of embodiment in such literature do not suffice in capturing compulsive engagement with the extracorporeal without centralising the self. Whilst this does prioritise the *perceiving body* over *decisive and rational minds*, it does not allow for analysing the dispersal of sensibilities beyond the body (see Kane 1994; Karp and Hallett 1996). Also, it 'pacifies' the bodily environment in these moments, which is at odds with experiential accounts (Bliss 1980). A less anthropocentric stance would enable tracing these sensibilities beyond the skin, and locate the perceiving body amongst material and immaterial presences that articulate the compulsively performing body (after Mol 1999; Conradson 2005).

2.2.3 Section conclusions

This section demonstrated in what ways the body and its environment may become caught up in compulsive interactions and in what way they impact the sensory processes that constitute them. Through explorations of performances that share aspects with urge-driven compulsions, compulsions have only been considered on the intentionality of their appearance. Nonetheless, the section offers insights that mainly help to answer Research Questions 1 and 2, and have implications for Research Question 3. The capacities of the body and particular parts is suggested to impact compulsions through the perception of their engagement with the extracorporeal world. Furthermore, experiences, arrangements and 'irrational' use of objects seem to play a crucial role in the constitution of particular compulsions. And finally, 'zoning' of spaces in the house, and avoiding public spaces with particular characteristics arguably require

consideration in understanding the constitution of compulsive person-place engagement.

Whilst the experiences mentioned might share only a few aspects with urge-driven compulsions, they demonstrate the entanglement of the body with its constituencies and the profound impacts it has on how affected people experience embodying (particular) spaces and objects. The geographical literature suggests that negotiations do not only take place with the performance of compulsions, but also in the sensory processes that may lead to their constitution. The body and processes of perception become mediated with, through and in spite of objects and spaces in the way compulsions are negotiated. Arrangements of and specific elements in bodily surroundings may therefore have considerable impact on the way compulsive engagement takes place. Negotiations of compulsions may then be considered to aim at retaining predictability and a status quo, as well as distraction from certain objects and spaces. The literature on perceptive processes is strongly generalised, and pinpointing difference between kinds of compulsions remains rather unimaginative. Nonetheless, the literature demonstrates how compulsive experience might be constituted, and help to outline the conditions upon which compulsive engagement takes place through the relation with the body outside the self.

The final section of the literature review engages with theory that captures experience and spatiality of the body-world relations in compulsive interactions to pinpoint what existing literature claims about such unwanted and unprecedented engagements with bodily surroundings. This section further analyses how compulsive interactions can contribute in understanding relations between people and place. It does so by evaluating literatures that assume a less anthropocentric stance, and, as such, further disrupt knowledge hierarchies between the human over the non-human (see Whatmore 2009; Greenhough 2011). In the turning away from the psychosocial, and a thorough reliance on experiential, this study's turn to poststructuralism, affects and the performative is not instating a return to the impersonal, mechanic, and scientific. Rather, it aims to identify and contextualise the personal, the space of emotions, and the conditions for anxiety in compulsive interaction.

2.3   DECONSTRUCTING AND RE-SPATIALIZING COMPULSIVE INTERACTIONS

OUR EXPRESSIVITY IS NOT ENTIRELY UNDER OUR CONTROL,

BUT RATHER THAT IT [ALSO] BELONGS TO THE SITUATION.

- SCHEIFFELIN 1998, PP. 197 IN DEWSBURY 2000

The previous sections related bodies, objects and spaces in the compulsive interaction, but did that from a brain and cognitive behavioural point of view, and from an experiential and perceptive point of view. In distinguishing *between* the compulsive engagements this is, however, not sufficient. The bodily situation with the objects and spaces that help constitute it requires qualitative differentiation to pinpoint *exactly* how they become involved. Indeed, the empirical studies in the previous section demonstrate that only particular bodily environments are associated with the potentially strong response that accompany them. Washing compulsions, interactions during mania, the intricacies of delusions all gained their thrust through their particularity. Discussing compulsive interactions as experienced but decontextualized is therefore not helpful. Rather, it might be useful to explore to what extent they can be understood as taking place *in the moment* and *in situ* (also articulated in Beljaars and Anderson forthcoming). By retrieving their situated unfolding, it becomes possible to trace the taste of the appeal, the rhythm of touch and order, and the sweet relief of perfected symmetry and balance. In these intimacies, the compulsive interaction stands revealed, and in turn, through these intimacies the compulsivity of person-place relations stands revealed.

In overcoming the lack of answers to the constitution and negotiation of compulsive interactions on the part of the continuous processes and structures identified as being involved, this section attends to the momentary and situational emergence of compulsions. Doing so allows attending especially to Research Question 3, and has strong implications for Research Question 1 and 2. First is explored what attending to the momentary and in situ means by exploring the eventual, performative, and affective in a flat ontology (Subsection 2.3.1). Thereafter, the geographical literature is explored on spatial theoretical engagements with human and more-than-human bodily materiality with which compulsive performativity unfolds (Subsection 2.3.2). The next subsection continues to analyse how embodied performances are constituted from a stance of unintentionality, purposelessness, and in a less deliberate manner. It reviews literature on the ways in which objects and spaces may be considered to become

actively involved in compulsions (Subsection 2.3.3). The subsection thereafter reviews literature on how the situation composed by geographies of bodies, objects, and spaces contributes to the analysis of compulsive interactions as they unfold (Subsection 2.3.4).

2.3.1 Events / Affect

In order to move from understanding compulsivity as an alteration in the brain, a diagnosis, or a condition to a phenomenon that emerges in the moment and in situ, an ontological shift needs to be made. Such a shift allows for focussing on the compulsion's unrelatedness to further life, as well as the shock of the urge emergence that suddenly requires the affected person to stop what they are doing, and continue only after the compulsion is completed. Such an ontological shift that captures the spatial is possible through a poststructural geography of immanence, in which knowledge is derived from events (Deleuze and Guattari 2004). An event can be understood as a happening that sketches the present moment; as a spatial act of immediacy, spontaneity and determination (Dewsbury 2000; Dewsbury et al. 2000; Thrift and Dewsbury 2000; Woodward 2010; Shaw 2012), amounting to an ontology of change (Badiou 2009). It gains its vital thrust with the intensity of something that has never happened before, simultaneously connecting pasts and a multitude of futures (Dewsbury 2000). Events configure situations of which humans are part but never centralised, which allows centring compulsive interactions themselves. Interruption has been conceptualised as the experiential shock of the body undergoing an event, raising both the default – habitual – and the 'new' to awareness, while also questioning them (Dawney 2013). Interruptions can thus help exposing how the body figures in compulsive engagements, and what people do to reduce the shock that it brings forth.

Allowing for the compulsive intimacies to articulate and to capture the situation in which compulsions unfold, the extracorporeal world that becomes involved in the compulsive interactions requires a 'stronger voice' and ontological presence. The analysis thus requires expansion to also include the specificity of objects and spaces that create this world. This is only possible by decentralising the human involved in the analysis of compulsions (see Mol 2002). In line with poststructural (e.g. Thrift 1997; 2004; Doel 1999; Murdoch 2006) and post-humanist (e.g. Whatmore 2002; Coyle 2006) approaches in human geography, the ontological focus then shifts to the *relations between* the body and the environmental elements. "Humans are envisioned in constant relations of modification and reciprocity with their environs" according to

Anderson and Harrison (2010, pp. 7). Such a relational approach "emphasizes the co-constitution and mutual entanglement of otherwise different (and often far distant) phenomena" (Castree et al. 2013, np). It merits the human and the more-than-human in person-place interactions to be of equal power (Doel 1999; Whatmore 2002). In effect, compulsive interactions then require to be analysed from a stance in which the more-than-human environment has as much impact on their unfolding as the human has. Therefore, every action ought to be understood as an interaction that is both constituted by the human and the more-than-human (Ingold 2000; Thrift 2008). Therefore, in analysing *why bodies do what they do*, should invite analysis of *what bodies do*. Such claims resonate with the impossibility to interpret compulsive interactions (see Kushner 1999).

A decentralisation of the human allows expanding the ways in which people figure in compulsive interactions. Such expansion entails a movement away from human dominance stemming from a rationality, deliberation and logic that humans have been attributed with (Bridge 2000; Stark 2016). Medical and clinical approaches to compulsivity have conceptualised it as opposed to such humanity in addition to the ability of being almost fully aware of and accountable for one's actions. This is despite the purposelessness of compulsions intricate and situated knowledges, considerations, and sensations experiential accounts testify to (e.g. Bliss 1980; Kane 1994; Hollenbeck 2003; Turtle and Robertson 2008; Wilensky 1999).

Such expansion also holds that in addition to cognitive deliberation, poststructural and posthuman approaches to geographies of the body challenge structures of meaning as – only – determinant of action (Anderson and Harrison 2010). This literature emphasizes the more-than-representational aspect of body-environment relations (e.g. Thrift 2004; 2008; Lorimer 2005; Harrison 2009; Anderson and Harrison 2010; Anderson 2012). Such considerations go beyond social constructions, the symbolic and representation and focus on the practical embodied composition of subjectivities – (e.g. Wylie 2009; 2010; Anderson and Harrison 2010; Anderson and Wylie 2010). They make space for "the unconscious, haptic knowledge, and practical dimensions of human existence" in human geographies (Castree et al. 2013: np). As such, the intelligible comes from the sensible (Dewsbury 2003). Indeed, in the absence of meaning, rationality, and purpose, the performance and negotiation of compulsive interactions may then be better understood along these lines. This allows exploring and attuning to more nuanced ways in which human bodies and their environments relate and create compulsive performative thrusts (after Brigstocke and Noorani 2016).

Attuning to the performance of these compulsions can take place through the affective dimensions that envelop, guide, and make felt the composition of the entities involved (after Deleuze and Guattari 2004). Affect can be understood as pre-reflexive or prepersonal intensity (Deleuze and Guattari 2004; Massumi 2002) that incites modifications to bodies (Spinoza 1996 in Dawney 2013). As such, affections render both human and more-than-human bodies "dynamic and emergent multiplicities; their powers constituted through their differential capacities to affect and be affected" (Bissell 2008, pp. 2649). Affect requires an openness from bodies to their constituencies that allows it to be affected (Thrift 2004; Harrison 2008). It comes in existence in and qualifies both the encounter of human and non-human entities, as well as these entities (Deleuze 1988). Affects are not bound by human experience, and can easily escape awareness (Thrift 1997), but can also become personal in emotions resulting their bestowment upon human bodies (Thien 2005; Anderson 2009; Anderson and Harrison 2010; Ash 2015).

Mobilising an ontology of affect to understand compulsive interactions helps understanding the thrust of the coming together or assemblage of elements that constitute the compulsion (after Deleuze and Guattari 2004). This thrust can also be understood as the performativity of the compulsive event, and can be regarded as "the gap, the rupture, the spacing that unfolds the next moment allowing change to happen" (Dewsbury 2000, pp. 475). It presents a potentially forceful possibility that is indeterminate, not intentional and non-directional that provides an incentive to action, other than intention offered by the self (Nash 2000; DeLanda 2006; Anderson and Wylie 2009). Scheiffelin (1998) therefore argues that human beings caught up in the performativity of events can never be fully accountable for their performances. The compulsive aspect of the urge-driven interactions then locates in the performance *itself*, not in the human or the human body. Attending to the performative of the situation in compulsive moments thus allows for pinpointing the differences between individual compulsive interactions and what they accomplish (i.e. tracing how the new situation differed from the old one and what new potentialities it then has).

A flat ontology of *in-betweenness* intimately connects and blurs separations between mind and body (Protevi 2009; Dawney 2013). As all entities involved have the same affective potentialities to contribute, there is no inside or outside within the constitution of compulsions. Consequently, the activity and power assigned to the human and the human body in more hierarchical ontologies is mirrored by the nonhuman and objects and spaces (Thrift and Dewsbury 2000). The extracorporeal is then retrieved from its

conceptualisation as "inert backdrop of brute things projected upon by our hopes, desires and fears" (Anderson and Harrison 2010, pp. 7-8). Negotiating compulsions is then as much an affair of human bodies as it is of the realm of the extracorporeal.

Whilst an ontology of affect suggests that upholding a separation between the body and its environment creates a false difference, empirical literature on compulsions, tics, and other medicalised performances insists on the importance of this difference in *experiential* terms. Therefore, the literature analysis continues to draw this line of difference; not to re-instate a "radical discontinuity" between the human and non-human (Murphy 1995, pp. 689), but to acknowledge the crucial importance of the experiential knowledge about the constitution of urge-driven compulsions. Urges are then rendered the *experienced effect* of embodied situations that invoke compulsive interactions; not as exclusive cause. This goes without denying the affectivity of the urge experience itself. In the following subsections this stance is explored further.

2.3.2 Fleshy Resonance

> FLESH DOES NOT MEDIATE BETWEEN PRE-EXISTENT AND INDEPENDENTLY
> CONSTITUTED ENTITIES; RATHER, IT IS IN AND THROUGH MEDIATION THAT
> ENTITIES ARE INTERRELATED AND BECOME THE ENTITIES THEY ARE.
>
> - HOEL AND CARUSI 2015, PP. 78

In rendering compulsive interactions as relationality of human and nonhuman affects, the human body becomes a "body amongst bodies" (Anderson and Wylie 2009, pp. 327). Human and nonhuman sensibilities and movements are then as much capable of affecting and being affected, and as much capable of shaping and interrogating (ibid.). The point where affects 'meet', and compulsive shaping and interrogating takes place is the focus of this section; the lively bodily materiality, its blood and bones, its fleshiness. Here, the flesh is not addressed on the sensuality of the bodily or capacity for identity formation. Rather, it is an "operative, organizing force" (Hoel and Carusi 2015, pp. 78) that articulates in its capabilities and sensibilities that are creative of a set of conditions upon which compulsions can unfold and are experienced. Indeed, it is in the instantiation of the bodily flesh that compulsive interactions gain their sensory quality, and upon which negotiations may take place. This might be the case in particular for compulsive touching, but as the literature does not differentiate between the sensory qualities of other interactions, such as ordering and balancing, the flesh may be the locus of amalgamation of affects in all interactive compulsions. In turn, the

bodily flesh needs to be attributed an affective quality in and of itself, that sets the possibilities of the involvement of the flesh.

Bringing the performative in line with the fleshy allows tapping into an intense and proximal mode of knowledge that might be crucial in understanding the particularity of compulsive interaction. Nonetheless, capturing this quality is very difficult. The sensations and experiential feelings of amalgamating affects in human and non-human bodies in the moment of particular kinds of touching (Paterson 2009; Fulkerson, 2014), and fleshy encounters more broadly (Hetherington 2003) seem encapsulated in a severe untranslatability (Lund 2005; Harrison 2007; Anderson 2012). Indeed, touch is not limited to the contact point on the body, but resonates in the whole haptic system (Gibson 1966) as well as in somatic sensations (Paterson 2009; Paterson and Dodge 2012). Despite their unfathomability in terms of capture, body-world interactions that erupt from the flesh give rise to the particular subjectivities that underpin compulsivity (after Thrift and Dewsbury 2000; Rose 2006). Therefore, compulsive engagements might help expand and deepen non-representational proximal and sensory knowledges (Dixon and Straughan 2010), and develop 'tactile topologies' (Dixon and Jones 2014). Additionally, attending to compulsive touch could offer insights into the ways in which object and space affects resonate with human bodies.

Resonance between human and nonhuman bodies in compulsive interaction has been emphasized in its actional sense (e.g. Lingis 2000; Anderson and Wylie 2009) and the ways in which nonhuman materiality is involved (e.g. Hetherington 2003; Bondi et al. 2005; Wylie 2005; 2006). Since in compulsions objects are not addressed in terms of their meaning, interactions become mutual interrogations, in which "flesh materialises and senses as a productive process of questioning and provocation", entangling "matter and thought into relations of substitution and distanciation" (Anderson and Wylie 2009, pp. 325). As such, objects and spaces might become part of compulsive interactions because of their specific provocation to specific aspects, dimensions, or capacities of the human flesh. In these literatures it is suggested that a person imagines the sensations that go along with activities associated with objects that one lays his/her eyes on (Gallagher 2005). For example, seeing a door presents imaginations of the feelings that arise when opening it such as the cold touch of the handle and the fierce grip to turn it, stepping back to accommodate for the turning circle the door requires, and subsequent air stream softly brushing against one's skin. It is therefore not unthinkable that these imaginations as part of affective, precognitive processes may incite urges to engage compulsively. Lingis (1999, pp. 14) argues "we

see not shapes but possibilities" (see also Bergson 1911), which demands an understanding of space and time that is pre-modal with which objects and spaces acquire a particular organisation (Matthen 2014). As such, considerations of the flesh help enlivening the extracorporeal, "rather than a detached gaze in which materiality stiffens into objectivity" (Anderson and Wylie 2009, pp. 324).

Resonance of object and space materiality with the fleshy human body seems to produce sensibilities with which compulsions take place. Anderson and Wylie (2009) have used Lingis' (1998) conceptualisations of materiality in terms of 'levels' to articulate the ways in which more-than-human materiality figures in the spatial experience upon which compulsivity might flow forth. In searching *imperatives for action*, levels denote matter in terms of light, colour, sound, texture, as bright, dull, vivid, and refractive, smooth and scratchy. Such levels of materiality intertwine with sensibilities that they allow humans to *see with and according to* the levels of matter (Lingis 1998, pp. 28-29):

> *Even as it surfaces as a property inherent in a thing, this red also plays across the room; the red of the roses intensifies the green of the leaves, bleaches the whiteness of the sheets of the bed, rouges the cheeks of our friend in the bed ... this red would not be the red it is if it did not mould surfaces with a certain grain and elasticity and quilt depth with a particular spongy density ... a colour ... sends forth a wave which brings other colours into relief and solicits their approach, lays open a field of possibility and materialises a wave of duration.*

Anderson and Wylie (2009, pp. 327) then argue that the intertwining of materialities and sensibilities do not occur in a space and time, but are constitutive of their own space-times, "their nature is this incessant composition of qualitative, differential spatial, and temporal `tunings'" (see also Morton 2013). This in itself goes beyond being a property of matter. Rather, in its experiential affects, matter can create a world through the conditions of the sensibilities it taps into (see Wylie 2006). Further developed in animal studies, such worlds are created with the presencing of large predators and their affects in a natural area's in which smaller predators are considered a pest; all stemming from a pile of excrement (Clayton 2016). In this the figuration of the excrement affects animals and then humans in particular ways; in other circumstances, it would affect them differently. In effect, objects and situations are constituted through their affective resonance. According to Bergson (1911, pp. 6-7):

> *They [objects] send back, then, to my body, as would a mirror, its eventual influence; they take rank in an order corresponding to the*

> *growing or decreasing powers of my body. The objects which*
> *surround my body reflect its possible action upon them.*

In the process, the object's 'thingness' understood as a stability is lost (see Bennett 2010). Indeed, as compulsions have been understood to not address objects on their functionality or aesthetical value, the objectness, or 'thingness' does not play a role. Therefore, to understand the ways in which objects help constitute compulsive interactions without pinning them down on their thingness, they require addressing on their materiality (after Bennett 2004; Anderson and Wylie 2009).

In *Dangerous Emotions*, Lingis (1999, pp. 29) goes on to emphasize that objects and spaces, as well as animals evoke human movement and engagement in accordance with them:

> *Our movements are not spontaneous initiatives launched against*
> *masses of inertia; we move in an environment of air currents, rustling*
> *trees, and animate bodies. Our movements are stirred by the*
> *coursing of our blood, the pulse of the wind, the reedy rhythms of the*
> *cicadas in the autumn trees, the whir of passing cars, the bounding of*
> *squirrels, and the tense, poised pause of deer. The speeds,*
> *slowness, and turns of our movements come from movements we*
> *meet about us.*

Lingis' quotation then suggests that compulsions may be understood as ways, articulations, or even exaltations of objects, spaces and other presences reverberating through the flesh. Indeed, compulsive interactions would then go beyond transcendent empathic tendencies (Banissy and Ward 2007), or practising with the help of an object (Maravita and Iriki 2004). If we accept this, compulsivity could be understood to reveal new ways in which materiality affects bodies in their relations to the world. Also, perhaps it is in the affection that stems from the very alignment of compulsive bodily movements with extracorporeal matter that anxieties arise, and, in turn, what sets the conditions upon which compulsions are negotiated. Arguably, in absence of meaning and a relation to the self, compulsivity might then be constituted through resonance of matter through the body. Such an understanding contextualises and narrows the exclusively human and cognitive ways in which human spatial engagement more broadly is conceived of by inserting material affects (after Dewsbury 2003; Rose 2006; Wylie 2006; Lea 2009; Ash 2015; Ash and Simpson 2016).

To conclude, this section has sought to articulate a less anthropocentric stance in analysing the literature on compulsive body-world relations. This informs the thesis by allowing to attend to the particularities of the bodily environment. It has done so by

locating compulsive interactions and the basis for their negotiation in the bodily flesh. This has opened up the ontological space for the extracorporeal affects of objects and spaces, as the flesh and the movements it permits allow these materialities to reverberate through the body. Such reverberations result in compulsive engagement with these materialities on the terms of these materialities. This, thus, suggests that the human cannot be conceived to be entirely responsible for the performance of compulsive interactions, which refutes medical and clinical invocations as such. To further analyse how such considerations might help understand the purposelessness and unintentionality with which compulsions are experienced, the next subsection teases out how compulsive body-world engagements are aligned with other engagements.

2.3.3 Distributed Intentionality

Up to this point, the literature review has established that compulsivity is experienced as meaningless and holds very little to no relations with the self in the ways similar medicalised performances do. Additionally, the interactions are unprecedented and seem to be disruptive because they seem unrelated to other-than-compulsive acts, and because bodily surroundings seem to affect their unfolding. The previous sections have sought to move away from its medicalised dimension, and understand it on its own terms. They have rendered the fleshiness and movements of the human body and its affective resonance with lively materiality. In attending to such resonances, this section traces the different ways in which materialities and sensibilities construct the direction or tendency towards the accomplishment that sustains compulsive interactions. This helps formulate answers to Research Question 1 and 2, as the section establishes in what ways the bodily environment can be considered to affect the performance of compulsions.

Here, it is useful to tease out what is meant with the direction or the tendency towards accomplishment of compulsive interactions. This is possible through a brief consideration of body-world relations as experienced in human geographical literature that develops a postphenomenological set of theories on the spatialities of the body in experience. Traditional phenomenological understandings of human bodies have been assumed a certain intentionality and have been ascribed a capacity to help reaching a certain goal (e.g. Seamon 1980; Buttimer and Seamon 1980; Merleau-Ponty 1962). In unsettling this, Harrison (2008) emphasises the vulnerability of the corporeal in all of its openness and passive submissiveness to the world. He argues that this renders bodies

consistently subordinated to action; as always waiting to be moved by the extracorporeal. Indeed, such bodily subordination might be experienced by those affected, as the emergence of the urge seems entirely unpredictable.

Corporeal subordination then destabilises the subject/object divide, as this no longer situates the human subject intentional towards, and therefore prior to the nonhuman object (Zahavi 2003; Simonsen 2013; Ash and Simpson 2016). As such, the "body-subject is now 'of' the world: body and world, subject and object, are conjoined as flesh" (Wylie 2006, pp. 525). Experience should therefore be understood as a co-emergence (Nancy 2000; Wylie 2006; 2009; 2010; Dewsbury 2007; Romanillos 2008; Ihde 2009; Lea 2009; Simpson 2009; Yusoff 2013; Ash and Simpson 2016; McCormack 2016). Indeed, it is not unthinkable for such an unfolding of compulsive interactions to be experienced in this manner, as experiential accounts do not demonstrate knowledge of what urges *exactly* require of the body, and not all compulsions are preceded by urges. Intentionality stretches over processes of subjectification (Dewsbury 2007) in an ongoing unfolding of experience (Wylie 2006).

Human *perception of* non-human objects and space then becomes *perception with* (Rose 2006; Wylie 2006). This is not to say that objects do not exist before emerging in experience; rather it is in their appearance that experience is constituted and intentionality emerges in the direction the compulsion unfolds with (Deleuze 1988; Ash and Simpson 2016; McCormack 2016). The intentionality or direction of, or tendency towards accomplishment of compulsivity ought then to be regarded as spatially dispersed; *involving but not being instigated* by the human. As such, differences between directions of intentional thrust sustaining compulsive engagements then allow pinpointing and analysing differences in kind. In turn, compulsivity constitutes a phenomenon that can be engaged with empirically, and that may demonstrate how intentionality does not situate with the human through the lacking relation to the self[9].

Intentionality and its constitution has been mobilised in geographical research to understand the coming-about of embodied engagement with the extracorporeal that share an apparent diminished human involvement. The concept of 'practice' has been mobilised in literature on bodies-in-action (e.g. Nash 2000; McCormack 2002; 2005; Valentine 2002; Saldanha 2005; Wylie 2005; Roe 2006; Spinney 2006; Anderson 2012;

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[9] I elaborate on this lacking relation with the self in conference paper "Writing Compulsive Corporeality: Postphenomenological methodology and Tourette syndrome", Session *Post-phenomenological Geographies: methods and styles of researching and writing the human (1): Subjects,* RGS with IBG Annual International Conference 2016, London

Colebrooke and Miele 2017) or for corporeal inaction (Bissell 2009; Harrison 2009). Practices render all human activities performed in unison with material arrangements and social phenomena, without being predetermined by these events (Simonsen 2005; Schatzki 2010). Nonetheless, they are understood to be vested in a flow of past events that provide input for a history that directs present practices (Lefebvre 1991). Whilst the human is not rendered dominating force and materialities are given primacy in the performance of practices (Mol 2002), their inherent timing of and benefit to the human retrieves the intention of the act from the nonhuman (see Harrison 2009; Schatzki 2010; Greenhough 2011). This differs fundamentally from compulsions, as compulsions are never a matter of choice (Bliss 1980; Van Bloss 2006; Turtle and Robertson 2008). Responding to an urge, compulsions do not seem to inherit directions of past performances. This indicates that in compulsive interactions human affects are less dominant than practices are.

A minimal involvement of the human and a potentially more dominant extracorporeal involvement in the constitution of compulsive engagement, compulsivity can be argued to demand a passivity of the human body (after Bissell 2008). In situating the human as more-than-rational (Anderson 2006), the human body becomes susceptible to outside affects and induces an inevitable bodily tolerance to seduction of such forces (Harrison 2008). This vulnerability can demonstrate how unreflective thought may play a more important role in mobilising the situated body (see also Dewsbury 2003; Bissell 2008; Stark 2016). Performing compulsive behaviour is essentially an act of stilling the mind, and, as such, compulsivity strongly resembles the concept of 'habit'. According to Dewsbury and Bissell (2014, pp. 23):

> *Habit, then, would present less a compromise between a transcendentally fixed separation of the individual and the environment and more a mutually emergent system of processes of immanent becoming at once organic and inorganic, interior and exterior.*

In vitalist understandings, habit is a bodily engagement that does not involve the self, and happens outside the active involvement of the subject (Malabou 2009; Bissell 2011) As such, "habit becomes the unruly nonhuman force that constricts the capacity for self-knowledge and realisation in its 'devitalisation of sense'" (Malabou 2009, pp. vii). Habits thus seem to be understood to have a similar disposition on the lack of relation to the self as compulsivity. Furthermore, for habits, but also in poststructural thought more general, every repetition occurs in an absolutely unique context, posing a distinctive assemblage of sensibilities and materialities (Ravaisson 2009; Grosz 2013;

Dewsbury and Bissell 2014). As such, habits would have the conceptual capacity to reflect the sensibilities and material intricacies of the situation, upon which intentionality of compulsive interactions grabs hold.

Whilst habits seem to resemble compulsive interactions on a number of aspects, it differs in others. This might be contrary to compulsive interactions as these can be repetitive, and seem to require a very distinct engagement to rid the urge sensation. As such, whilst habits take place in the flow of present engagement without recollection from the past (Carlisle 2006), subjectification processes underpinning compulsions do seem to require active human involvement. Also, habit might not capture specific material constellations with which urges emerge to compulsively order or balance materiality. Additionally, habits can be experienced as "giv[ing] birth to wondrous and unsettling – enchanting – new forms" (Bennett 2001, pp. 40 in Anderson and Wylie 2009) which, in contrast to compulsions, allows for a distinctly positive experience.

As compared to conceptualisations of practices and habits, compulsive engagement seems to differ on its separation from the self, but rely on active human attention in subjectification processes. Moreover, lacking alignment with the human, the intentionality that emerges with the unfolding of compulsive engagement seems to be affirmative of extracorporeal agency. The literature reviewed in this subsection thus suggests to provide more agency to the extracorporeal in understanding the constitution and negotiation of, and differences between compulsive interactions. Importantly, extracorporeal materiality seems to be addressed on appearance *as such*. In other words elements of objects and spaces could be thought to replace or acquire a new compulsive purposiveness that differs from their other-than-compulsive purpose. Relating this to Research Questions 1 and 2, suggests that the bodily environment can be addressed on its materiality or form, and not its functionality. In turn, answering to Research Question 3, this suggests that compulsive interactions pinpoint person-place relations that articulate a simultaneous emergence of body and world. Effective negotiation of compulsive interactions thus requires addressing this constellation. Compulsivity would then locate in an embodied engagement that does not happen *by* or *upon* the body, but *with* it. This is up to a point in which compulsions would be actively resisted, which is currently not acknowledged in the geographical conceptualisations of embodiment. As such, this demonstrates that in human geographical theory, compulsive interaction requires a new space carved out for the person-place relation it embodies. The final subsection traces the spatialities of compulsive interactions in the situation of their unfolding.

2.3.4 Spatial Articulations

This section asks if there are ways of preserving the differences between compulsive interactions, whilst thinking them as constitutive of a collective of sorts. It explores literature that assembles these events as affirmative of a shared or interrelated spatiality. This helps understand in what ways the bodily environment gains a 'new conception' that is not based on functionality, but on particular compulsive intensities. Insights in such collections might unearth how negotiations take place, not just with regards to emerging urges, but in relation to the object and space constellations more broadly, as compulsive interactions could be considered to have follow-on effects with the appearance of the situation evolving.

As argued in the previous section, for compulsive interactions to take place, the human body, and extracorporeal materiality need to assemble in such a way that the urge to interact emerges. To place the volatility of the compulsive situation, Deleuze's conceptualisation of experience may be helpful. Deleuze (1988 in Colebrook 2002) argues that to experience an object means to fuse with it, and sharing in its space and time. However, fusing with one object excludes fusing with others, and by extension, prohibits sharing in the space and time of others. The tension that lies between objects – and thus also spaces – can amalgamate in a perceptual cacophony of different rhythms (Rajchman 1998). The friction this may result in might be considered to emerge in the heightened sensitivity the experiential accounts of those affected speak of (e.g. Bliss 1980; Kane 1994; Van Bloss 2006). These sensory phenomena might then be thought to locate the human in place that has fallen into a collective rhythm that is somehow disturbing to the human (see Anderson 2015). This suggests that compulsive interactions could also be performed in a reactionary sense. Indeed, this is in lines with Bliss (1980) and Kane (1994) who regard tics as providing temporal relief from the urges.

Further unpacking a spatial situation from which compulsivity could be thought to arise, is by attending to how the differing rhythms produce experiential turbulence. Coined by Serres (1995), turbulence can be understood as an intermediary state between order and disorder, presenting materiality "tensed between a gathering (and thus forming a unity) and a distribution (and thus forming multiplicity)" (Anderson and Wylie 2009, pp. 321). Bodies, objects and spaces are thus always involved in gatherings with others they might share experiential rhythms with, and distributions with other materiality with which friction arises (after Deleuze 1991; Bennet 2001). These magnetisms and repellences give bodies, objects, and spaces 'complex presence' (Mol 2002). It is not

unthinkable that for those having to perform compulsive interactions, such complex presence could be experienced as not-just-right feelings, and by extension, the disruptive world of people like Amy Wilensky (1999).

Up to this point, compulsive interactions have been understood as disruptive because they are unwanted and unprecedented in and of themselves. Nonetheless, conceptualisations of turbulence and rhythm that attend to the disruptive element of urge driven compulsions suggest further spatial connotations. Mitch Rose (2006) argues that transcendental understanding of our lives and the worlds that sustain them is deeply seated in equally transcendental cultures around specificities of places. Through their transcendental conceptualisation, places are already assumed a coherence in their presence stemming from the way they are invoked. Rose problematizes this a priori coherence of spaces, as this is contrary to the way their material presence is experienced (see also Ingold 2000; Wylie 2002). Rather, he argues, with bodily movements and imaginations, elements of spaces co-emerge as subjectification processes, giving rise to particular presence of spaces (see also Wylie 2006; 2009; McCormack 2016). Having dinner, doing board games, and entertaining guests might then perform 'living room-ness' in a space. The disruptiveness of compulsive performances may thus stem from their qualitative difference from the specific performative cultures that pervades places. Indeed, the conditions upon which negotiations are deemed possible and are performed might then also take place within the cultural conditions in these places.

In the same way, it could be argued that with the particular materialities and spatiality that spaces perform presence, a particular 'compulsive culture' could be thought. Not in the interpretative sense, but as attentive to the persistence of material distinctiveness over time (see also Romanillos 2008; Simpson 2009; Wylie 2009). In other words, spaces could be thought to actualise with the affected human moving through as a particular affective regime with which compulsions emerge that transcends the compulsive moment. For such persistence of an affective regime to be able to actualise with human performativity, and actualise again with the person residing in the place the next day, it is useful to think with 'the percept'.

Developed by Deleuze (1991) on the basis of Bergson's object images (1911), the percept alludes to perceptions within space by a person, which is a unique constellation of all that is present: a gathering of the subject, object and perception itself. As such, the percept is "anterior to the prescription of perceiving subject and perceived world" (Anderson and Wylie 2009, pp. 332), and therefore does not belong to

the subject (Wylie 2006). Percepts constitute "a pure flow of life and perception, without any distinct perceivers" (Colebrook 2002, pp. 74), and acquire quality by the capabilities and sensibilities of both object and subject (Dewsbury et al. 2002). Whilst Wylie (2006) mobilises the percept in a visual sense[10], compulsive interactions might help develop the concept on its tactility. Situated 'compulsive cultures' then consist of the collections of all possible percepts that can be 'taken' when the human 'steps into them', without necessarily predetermining compulsive engagement. Negotiating compulsive interactions could then be mediated through these percepts, their collectives, and their spatial distribution. By extension, thinking collective percepts invites thinking difference between percepts in terms of their compulsive capacity. Jane Bennett (2004; 2010) invites taking further distributive thinking of compulsive interactions and their experiential conditions in lively compositional ecologies.

Thinking compulsions as actualised through percepts preserves the qualitative difference whilst still enabling an attendance to their assemblage. The sensitivities in these conceptualisations allows tracing the particular affects that underpin Laura's compulsions as mentioned in the introduction to the thesis. Now, we can see the spatial and experiential constellations that culminate in her compulsively touching of the bottom left corner of a cupboard door, and compulsively aligning the condiment flasks with the edge of the kitchen counter. They are not only pronunciations of her bodily capabilities and sensitivities, object materiality and appearance, and the turbulence the situation is caught up in, but also of the kitchen as a space of touch, alignment, and balance that is outside meaning, human intention, and purpose. In addition to the socialities that pervade these spaces, negotiating compulsive interactions may then be considered to take place with reference to the specificities of these collectives. Our familial kitchen would thus invoke its particular conditions upon which urges arose, were met, and were negotiated in different ways as her bedroom and other realms of Laura's life did.

2.3.5 Section conclusions

This section sought to move closer to the compulsive performance of the interaction between the human body and the nonhuman environment. In attending to the intricacies of the unfolding of the embodied engagements it adopted an ontology of

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[10] Wylie does so to think through the co-emergence of self and world through depth. It is based on Merleau-Ponty's work, which prioritises the visual over other senses (Hoel & Carusi, 2015).

immanence. By centring the compulsive interaction, rather than the person performing the act, the human and the nonhuman could be conceived as equally powerful in its constitution. As also reflective of the experiential accounts of those affected, the intentionality, which directs urges and compulsions, can no longer only belong to the human. In its dispersion over the situation, the body moves with the particularity of the extracorporeal, resonating its affects in the flesh. Subjectification processes that underpin this resonance then emerge as percepts upon which compulsive interactions are performed. This presents an account of compulsive bodily engagement that emerges with the particularity of different spaces, object appearance, as well as capabilities of the body.

Compulsivity then becomes a means to "emphasize the closeness, the intimacy, of humans and nonhumans" (Bennett 2004, pp. 365); constitutive of a geography in which the human takes part, but is not dominant. It is a person-place relation that could be imagined as a geography of escalating or excessive affective materiality so eagerly theorised in posthuman affinity through interpretation, but so problematically captured. Compulsive interactions present the instances of human life during which it is inharmonious and conflicted, and in which human dominance can no longer blatantly be asserted. It requires thinking the spatiality of the human body not only beyond its biological functionality, but outside meaning and culture. In studying compulsive engagement with the extracorporeal, we need to leave the grand symptomatic gestures, and the recognisable but tokenistic practices of what geographers have affirmed human spatiality as. Instead, compulsivity demands truly looking at all intricacies of the concerted movements with which the human and nonhuman acquire presence.

2.4   CHAPTER CONCLUSIONS

This study is aimed at unearthing the ways in which compulsive interactions emerge as spatial processes between bodies, objects, and spaces, as well as how they are negotiated. It also asks these questions to learn more about spatial relations between humans and spaces. The literature review gathers the performance of compulsive interactions in a number of ways, which allows to provide a speculative answer to the research questions. The following can be argued. Medical and clinical approaches have unfortunately been few, but they have categorised the interactions in broad terms as touching, ordering, aligning and balancing. They seem to take place wherever

affected people go, but seem to increase in 'frequency' and 'severity' with a greater familiarity of spaces as well as other people present. Additionally, the kind of compulsions have been related to the bodily activities the body is otherwise engaged in. Compulsions and their negotiations also have been found to be intricately related to three sensory phenomena that urge the performance of the compulsion, denote its completion, and envision the broader perceptual world.

Despite a clear lack of literature on urge-driven compulsions, and very little surrounding it, literature on the spatiality of comparable medicalised conditions and processes of perception demonstrate the entangled experiences of the body, objects, and spaces. These experiences underpinned by perceptive processes seem to emerge with intricate spatial zoning and separation exercises. These sets of literature then articulate conditions upon which bodies, objects, and spaces become forced into organisational regimes, insofar as they are recognised to meet these conditions. As such, these studies unsettle the rigidity with which bodies, objects, and spaces have uncritically been assigned a certain mundanity and passivity in people's lives. Nonetheless, they do so largely prioritising the diagnosis rather than the performance, which juxtaposes the potentially different spatial processes with which these elements exist. Also, whilst these studies articulate their potential forcefulness as a destructive to the self, the current study required reading them on the less or non-representational aspects, as well as the perceptive processes that underpin compulsive subjectivity. Indeed, in their escape from psychosocial analysis and other approaches, seeking to understand how compulsive interactions are performed and negotiated cannot take place on essentialist terms.

This study then sees compulsive engagements beyond an expression of symptomatology and pathology, or disability, normativity, and health. Therefore, it urges for a hesitation to immediately study and conceptualise compulsivity in medical terms or patterns of suffering. Instead, the literature reviewed invokes to vitalise the performativity of urge driven compulsions through the lively thrust of the presences that make up the situation of the body and its constituencies. As such, the compulsive element of the interaction is taken away from the human, and uncoupled from the body, and redistributed over the corporeal situation with which the human is caught up. Negotiating urge-driven compulsions is then no longer solely an affair of the brain, the body, or its movements, but incorporates the bodily situation in its material and social totality. Compulsivity then presents a modality of performativity that the geographical literature does not entirely come to grips with, and therefore problematizes existing

conceptualisations of person-place relations. Indeed, compulsive interactions seem to defy taken-for-granted notions about human embodiment in geography; not only in terms of the complexity of the body-self/subjectivity relations, but also in its ill-conception of compulsions' meaninglessness, purposelessness and disruption.

In addition to empirical studies, this research signals the distinct lack of conceptual or theoretical acknowledgement of compulsivity in the more theoretical literature. In carving out a conceptual space in geography, the poststructural and postphenomenological literature cited nonetheless invite working through the spatiality of compulsivity. Indeed, it suggests ways in which the compulsive aspect of person-place relations can be mobilised as a conceptual vitality in itself. Therefore, the literature review set it up as a phenomenon that can be attributed a 'thrust' in its desirous assembling of human and nonhuman elements of the bodily environment (after Deleuze and Guattari 2004, see also Beljaars forthcoming). Especially through the distinctive lack of relation to the self, its disruptive subjectivity, and in its difference from practices and habits, compulsivity may help analyse "the inherent and continuous susceptibility of corporeal life to the unchosen and the unforeseen – its inherent openness to what exceeds its abilities to contain and absorb" (Harrison 2008, pp. 427).

Then, conceptualising the momentary and in situ performance of compulsions as assemblages allows attending to every shift in circumstances, and how this shapes the conditions for the next urge to emerge (after Deleuze and Parnet 2007 in Anderson and McFarlane 2011; McCormack 2016). In effect, compulsive performances then assemble heterogeneous elements without the restraint of categories, such as objects, spaces, bodily capacities, and sociality (after Deleuze and Guattari 2004; DeLanda 2006; Dovey 2010). The study then overcomes the inherent difficulties of requiring to choose between particular categorisations that have prevented medical and clinical sciences from investing in environments. Indeed, compulsions as assemblages invite qualitative difference *between individual interactions*, rather than the quantitative, categorical difference upon which the scientific understandings are based (Deleuze 1994; 2004). As such, conceptualising compulsions as assemblages allows attending to different dimensions of bodies, objects, and spaces (Deleuze and Guattari 2004; DeLanda 2006; Dewsbury 2011). In effect, this conceptualises them as emergent and vanishing microspatialities. In addition, it allows recognising how negotiations avoid or destabilize these compulsive assemblages.

Whilst rendering compulsive interactions assemblages helps expressing the non-hierarchical co-emergence of heterogeneous elements, I argue that the particularity of

compulsions cannot be analysed as assemblage. Indeed, assemblage ontologies do not differentiate between the particular *kind of involvement* of these elements. In assemblage theories[11], heterogeneous elements that constitute assemblages territorialise towards their collectiveness, which in turn becomes powerful through their *presence within* and *becoming of* the assemblage (Deleuze and Guattari 2004). Emphases on *presence* and *becoming* disallows distinguishing the kind of contribution, and requires elements to lose their properties (DeLanda 2006). For example, in Laura's case, drawers can contribute to compulsive interactions by virtue of any of their corners, wood-feel, location at hip height, as well as their capacity to close. This indicates a particular situation of the flesh of Laura's finger, as well as the appearance, and particular wood-feel of, the drawer tip in composition with the kitchen and the availability of the body to engage compulsively.

Whilst assemblages help to identify the elements that constitute compulsive interactions, these theories cannot quite grasp *how these constitutive elements relate to each other in compulsive situations but from a human perspective*. In other words, to answer the research questions, the thesis needs to be able to conceive of the *spatial conditions upon which* the elements become involved as emergent from bodily perception processes. This suggests the need to employ a methodology with a flat ontology that does not prioritise the human over the nonhuman or the corporeal over the extracorporeal, but which does involve a human corporeal percept. Capturing the spatial conditions of compulsion emergence would thus involve a methodology with a particular sensitivity to the articulation of the form and materiality of objects and spaces, and, as such, allow for a 'mapping' of these compulsive configurations. Additionally, it requires involvement of perceptions of performing compulsions, as they inform the formation of subjectification enlacing bodies, objects, and spaces. However, these perceptions would not need to be based on introspection and the relational only.

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[11] e.g. Deleuze and Guattari 2004; Latour 1993; 2005; Colebrook, 2002; Delanda, 2006; 2016; and for human geography in particular Anderson and McFarlane 2011, Dewsbury 2011 Anderson 2012; Thrift 1997; 2008)

CHAPTER 3   METHODOLOGY

The literature review demonstrated that compulsive interaction is a severely underresearched phenomenon. Indeed, where compulsions are researched, they are understood as solely a malfunction of the brain, as actions rather than interactions, and in terms of severity and frequency, rather than kind. As a consequence, the consulted literature does not explain how particular contexts, and the conditions they arise from, sustain, and evoke particular kinds of compulsive interactions, and in what ways negotiations map onto them. This study aims to uncover how compulsive interactions emerge through encounters between bodies, objects, and spaces, the ways in which these relations are negotiated, and what can teach us about relations between people and place. In this chapter I demonstrate in what ways the social scientific methodology that guided this study can help to overcome the gaps in the literature and help inform these aims.

The chapter opens with the Onto-epistemological Questions (section 3.1), which sets out the philosophical premises of the empirical study. It does so by attending to the more-than-representational aspects of compulsive interactions, elaborating on the spatial and experiential organisation of perception through the sensory, and carving out in what ways personal histories have informed the methods. The following Subsection 3.2 on the Research Design elaborates on the recruitment of research participants, the ethics and researcher positionality, as well as the study locations, the set-up before and during initial meetings, the use of diagnostic tests and extra information provided by three participants. Subsection 3.3 Methods elaborates on the ways in which I employed the methods, namely, semi-structural, in-depth interviews, ethnographic observations, and mobile eye-tracking, followed by the analysis of the different kinds of data produced through these methods, and the participation effects on the participants. Subsection 3.4 provides a summary, and elaborates on the organisation of the analysis chapters

3.1   ONTO-EPISTEMOLOGICAL QUESTIONS

For understanding the complexities and kind of compulsive interactions that are constituted through spatial configurations of bodies, objects, and spaces, this section

attends to the onto-epistemological parameters of the study. As highlighted in Chapter 2, compulsive interactions have not been studied *as such* in the literature to date. Understanding them in broader terms as urge-driven movements sees them appearing in empirical studies on their frequency and severity and in compliance with pre-existing categories. Additionally, they have been studied in terms of their capacity to incapacitate people in their daily lives. As such, these studies are underpinned by onto-epistemologies that position compulsive interactions in terms of structures of cognition and meaning, which silences their spatial and affective dimensions. The methodology of this study thus needed to be sensitive to the spatial, perceptive, and reflexive ways in which compulsive interactions and their negotiations are performed. Therefore, the study organised knowledge formation through performative, more-than-representational dimensions (Section 3.1.1), the in situ spatial and experiential organisation through the sensory (Section 3.1.2), and long term experiences of performing an negotiating compulsive histories (Section 3.1.3). First, I turn to the ontological situation of the human with the more-than human and the capacities upon which both figured in the study.

In the literature review I have suggested that it is necessary to conceive of compulsive interactions and their negotiations through a flattened ontology. Such ontology equalises the human and nonhuman capacities in their contribution to compulsions (see Law, 2004). As these human and the nonhuman capacities differ, the thesis aimed to uncover the conditions upon which they became involved, and attended to them in commensurate ways. Nonhuman objects and spaces have been rendered affective on *nonnormative terms.* In this, their constitutive aspects were not rendered in accordance to human conception but human perception (after Harman 2002; Ash 2015). In other words, their meaning, aesthetics, and functionality were not prioritised over their physical form and embeddedness in the material situations (see Bennett 2001; Whatmore 2006; Anderson and Wylie 2009). Moreover, human involvement has been based on human capacities for consciousness, sensation, as well as intro- and retrospection. Additionally, their capacity for timing, postponement, and predicting consequences has been attended to.

3.1.1 Performativity: Beyond words

As academic and autobiographical literature on compulsivity and urge-driven performances argue, rationality as linear logic and self-world relations seem unable to explain the urge for, nor the kind of, compulsive engagement with the extracorporeal.

This presents specific conditions for the study's engagement with the human and their experiences. Methods such as interviews that do so, often do so to uncover meanings and sense-making processes (after Bryman 2012). Indeed, in uncovering compulsive performance the basis for knowledge expands from only comprehending signification to also include "the world of substance, flesh, and viscerality" (Deleuze and Parnet 1987, pp. 54). Such expansion is based on poststructural and postphenomenological rejection of essentialism for knowledge formation. Instead, the non-representational theories that characterise these criticisms challenge the requirement for sense-making processes for understanding phenomena (Thrift 1997; 2008; Dewsbury 2003; Harrison 2007; Anderson and Harrison 2010).

A focus on knowledge formation outside sense-making processes and structures of meaning envisions new modes of communication; for instance through movement such as dance (McCormack 2003) and by posthuman attunements (Brigstocke and Noorani 2016). It also highlights problems with capturing experience in and of itself, as in the communication of experiences, elements always get lost (Agamben 1999). In other words: "the sense of this movement disappeared when one tried to capture it through meaningful reflection" (McCormack 2003, pp. 493). This is only through the nonrelational aspects of experience that, nonetheless, tell us something about human-world relations (Harrison 2007; Anderson and Harrison 2010; MacPherson 2010), but also in particular experiences that are pathologised and not shared across humanity (Davidson and Henderson 2010). In case of compulsivity, urges in particular seem to be nonrelational phenomena as Verdellen et al. (2008) argue that they are difficult to capture in words (see also Woods et al. 2005). Additionally, some might not be memorable enough to last a memory, and sink in the body-memory in a similar fashion as some habits do (see Bissell 2011).

In capturing experiences in the most fitting way possible, the methodology for this study needed to cater for any expression of performing compulsions. This required a sensitivity to everyday language, medical and clinical jargon, metaphors, utterances, and gestures, and offer the potential for the exemplification of compulsions and negotiations, and share sensations. Such an approach would not impose a method of knowledge construction (see Feld 1982 in Pink 2009). Rather, it needed to provide accounts of sense-making processes of life with compulsions and their negotiations, as well as be sensitive to the boundaries of experience (after Lea 2009). Such a tracing would effectively 'map' experience onto compulsive configurations. In turn, this conceptual 'mapping' would also allow for situating the uncommunicable,

untranslatable, and non-representational aspects of compulsive interactions, as well as their negotiations. Especially the latter invited thinking through explicit bodily dispositions – feeling and movements or "intelligence-as-act" (Melrose 1994 in Dewsbury 2009, pp. 327), which approached compulsive performances as close as possible through my own body (after Crang 2003; 2005; Longhurst et al. 2008; MacPherson 2010).

3.1.2 Experience in situ: The sensory

In order to determine the ways in which spatial situations of bodies, objects, and spaces become involved in constituting and negotiating compulsive interactions, the study needed to attend to processes of perception and embodiments of compulsivity. As such, it attends to the spatial and experiential organisation of the sensory. As the onto-epistemological position suggested, the study should be sensitive to the flesh as an "operative, organizing force" (Hoel and Carusi 2015, pp. 78), as touch invokes a spatiality centring the body as frame of reference (Chirimuuta and Paterson 2014). The study thus attends to the visceral to attune to and "bring background or previously undetected non-human objects and forces to the forefront and so enable them to be studied and analysed" (Ash 2017, pp. 206). Furthermore, spatial experience is constituted by the totality of the modes of perception to produce a system of bodily orientation (Ingold 2000), and the summing up of the senses (Spence and Driver 2004). As bodily orientation with reference to objects and/or spaces had been named to incite compulsive engagement (e.g. Wilensky 1999; Shane Fistell in Crichton-Miller et al. 2004; Van Bloss 2006), this study is sensitive to the ways in which bodies position in accordance to the extracorporeal.

Whilst spatial experience cannot be reduced to one sense (Pink 2009), the visuocentrism in Western philosophy underpinning social scientific research does prioritise vision over other senses (Atkinson et al. 2007; Stokes and Biggs 2014; Chirimuuta and Paterson 2014). Indeed, compulsively engaging with the order and organisation of objects, as well as the heightened sensitivity had been claimed as largely vision-related phenomena. With vision invoking a different kind of spatiality centring the extracorporeal as frame of reference (Révèsz 1950 in Chirimuuta and Paterson 2014), the visual needed to be specifically accommodated in the methods to capture compulsive ordering and balancing. Additionally, the methodology also needed to cater for the particularities of the tactile, to capture instances such as Shane Fistell's compulsive urge to 'touch' Oliver Sacks' breath with his own (Rawlence 1996). In

conjunction with a lack of reference to the self, the study refrained from mobilising sensory data as means for the interpretation of meaning. Rather, it needed to epistemologically position sensory data as indication of the *kind* and *location* of spatial processes that enlace the corporeal with the extracorporeal. This would help to determine the conditions for compulsive subjectification processes through first-person perspectives.

3.1.3 Compulsive histories

In order to understand how compulsive interactions co-emerge with particular body-object-space constellations, I needed to turn to historical experiential accounts. Such a move would not re-instate a structural approach to compulsive interactions, rather, as Segrott and Doel's (2004) study suggests, historical experiential accounts provide the conditions upon which the human would become involved in the compulsion. Indeed, prior knowledge of situations and activities prone to compulsive urges, especially those that are habitual and/or repetitive, may inform certain expectations of compulsive engagement. These expectations would include particular challenging, or potentially harmful compulsive associations with specific objects and spaces (see Eapen et al. 1994; O'Connor 2002; Segrott and Doel 2004), as well as different people who might hold particular views of compulsions (see Buckser 2006; 2008; Kuschner 1999; Wilensky 1999; Davis et al. 2004; van Bloss 2006).

Such narrative first person perspectives could offer the potential to map compulsive subjectivities upon which negotiations of the urge unfolded. Methodological attendance to historical experiences could capture how compulsions were carried out in particular ways or rendered invisible and to what effect. These experiences may inform future decisions to negotiate compulsive urges or interactions with momentary perceptive and bodily measures (see e.g. Wilensky 1999; Van Bloss 2006; Buckser 2008), or not (Crichton-Miller et al. 2004: np). Experiences may also identify negotiations with structural measures, such as through taking medication or having therapy (Davis et al. 2004). Furthermore, histories of being medicalised, often including misdiagnosis, and clinical constructions of compulsions, impact the experience and negotiations of compulsive engagement profoundly (Kushner 1999). These histories of compulsive engagement and the reflexive intricacies of human involvement and the effects on situational wellbeing also offer the potential to help develop a broader understanding about the ways in which compulsivity may form person-place relations.

In short, this section set out the study's particular onto-epistemological premises that combine the spatialities of human and nonhuman performativity, mediation in the flesh and through perceptions in in situ experiences, and personal histories of compulsivity. This combination allowed attending to human-nonhuman interactions, and developing subjectification processes beyond representation and without requiring interpretation. Therefore, I decided on a methodology that spans the human and the nonhuman elements involved in compulsive interactions, includes perceptions and experiences of the unfolding urgency and negotiation, and articulates the distinctive spatial qualities of compulsions. The next section develops these premises into the design of the study, before elaborating on the research methods employed.

3.2   RESEARCH DESIGN

This study aims to uncover how compulsive interactions emerge with processes between bodies, objects, and spaces, and how these relations are negotiated in order to develop our knowledge about spatial relations between people and place. This section elaborates on the ways in which I needed to organise accessing compulsive interactions, their negotiations as spatial configuration, and subjectification processes. In doing so, this section builds on the onto-epistemological conditions set out in the previous section. As has been noted in the previous section, the where, when, and how of urge-driven compulsive engagement does not appear in previous empirical research. Therefore, I relied heavily on the experience of people performing compulsions. As Del Casino (2010) notes, in what ways medicalised performances articulate depends on the spatial and social circumstances. Consequently, I needed to create environments that were supportive of, and stimulating for, people to discuss their experiences, and for compulsions to arise. I did so in a number of ways in close collaboration with the people I worked with. This section elaborates on these environments after explaining participant recruitment (Subsection 3.2.1), through research ethics (Subsection 3.2.2), and feeds these ethical concerns into the ways in which the research meetings were organised (Subsection 3.2.2)

3.2.1 Participant recruitment

This study attends to compulsive interactions, not people performing them, nor the Tourette syndrome diagnosis. However, compulsive interactions have not been studied in social sciences before, therefore, there was no guideline of how many participants

would be ideal for this study. As Segrott and Doel's (2004) study suggests, there can be an incredible richness and vastness of the data working with only one participant. Indeed, through focussing on compulsive interactions further than a clinical diagnosis, there is the potential for this study to have a vast, open-ended appearance. Instead of finding more resemblance with the addition of every participant, there was a risk that the kind of compulsions identified varied further, increasing the complexity of the phenomenon and the multiplicity of the implications (after Rajchman 2000, cited in Dewsbury 2009). This study therefore had to balance the need for a suitable and respectable recruitment group without this becoming unmanageable.

Involvement in this study required participants to perform compulsive interactions, such as touching, ordering, balancing and instating symmetry, that were driven by urges and/or not-just-right feelings. To cater for negotiations to have taken shape, all participants had to be aware of, and have the capacity to discuss performing them. Additionally, as advised by Dr Cara Verdellen, participants would have had experience with performing compulsions for at least one year prior to and during the study as part of their Tourette syndrome diagnosis. Furthermore, those involved had to be at least 18 years of age, as the urge would most likely have developed by this age (Banaschewitski et al. 2003; Verdellen et al. 2008). As such, this study could also help provide insight into adults with a Tourette syndrome diagnosis, as the vast majority of medical and clinical literature is based on research with diagnosed children. Also, all participants had to have Dutch as their native language to avoid missing out on linguistic nuances, as well as a sharing understandings of medical and cultural contexts of everyday life. Despite focusing on compulsive interactions rather than people, participant diversity in terms of age, gender, race, education, occupation, living situation, and medical history had been safeguarded in recruitment efforts. On the basis of discussions with Dr Cara Verdellen[12] and my sister, as well as on the basis of the developing database over the 8 months I worked with them, 15 people complied with the recruitment requirements, and became involved in the study. This number also sustained the need for a rich and diverse collection of compulsions that remained manageable. Their involvement ranged a period between several days and 7 months (see Table 1 for a short description of the participants).

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[12] Dr Cara Verdellen could advise me on the variety of compulsions performed and the differences between people, and my sister could advise on the differences between places, times, presence of other people, and activities.

Pseudonym	Gender	Age	Occupation	Living situation
Alan	M	67	Retired, former graphic designer	Lived with his partner and many pets in large house in a suburban neighbourhood
Siôn	M	41	Freelance camera man	Lived with his partner and children in semi-detached house in a suburban neighbourhood
Sara	F	21	Part-time voluntary carer at a home for disabled people	Lived alone with pets in a small studio in a small village
Elisa	F	35	Part-time psychiatric nurse	Lived with partner and pets in small house in a small village
Cai	M	18	Unemployed, former student in logistics	Lived with house mate in assisted living complex in a suburb of large city
Sage	F	25	Working with disabled children on voluntary basis	Lived with boyfriend and pets in farm house on the countryside during the interview and observation, and in a 3rd floor flat in a suburban neighbourhood during the eye-tracking sessions
Tomos	M	27	Musician	Lived on his own in a small house in a suburban neighbourhood
Lowri	F	24	Student pedagogy	Lived with her partner in a small flat in a city centre
Ginny	F	35	Unemployed after a wide range of jobs	Lived with partner and children and dog in a suburban neighbourhood of a middle sized city
Mina	F	39	Unemployed, legally deemed partially unfit for work, former insurance doctor	Lived alone in a flat on ground level in the centre of a middle-sized city
Bill	M	38	Unemployed	Lived with his partner, son and dog in a house in a suburban neighbourhood of a town
Joe	M	53	Unemployed, legally partially deemed unfit for work, former lorry driver	Lived with wife, two children and pets in a small terraced house in a village
Rhys	M	21	Law student	Lived in a shared student house
Dylan	M	21	Unemployed, former fitness coach	Lived with parents and pets in a small terraced house in a middle-sized town.
Nora	F	52	Legally deemed entirely unfit for work	Lived with husband and pet in a small terraced house in a large town

Table 1: Participant occupation and living situation

The networks of my sister and the professional networks[13] of advisor Dr. Cara Verdellen helped recruiting two participants. Furthermore, as Casler et al. (2013) argue, calls for participants on social media platforms have increasingly become commonplace, and they proved very useful in this study as well. Nine participants were recruited via social media. I have been a member of a number of Dutch Facebook pages on which people with TS discuss experiences. These, as well as related websites of various Dutch patient interest groups[14], allowed the placement of open calls for participants on online platforms. Especially the Facebook pages allowed for inviting individuals who seemed relevant to the study on the basis of their comments on these platforms. Private direct messaging with email follow-up resulted in the recruitment of nine people. Additionally, three participants were recruited during an annual meeting day of the Dutch patient organisation[15], and one through snowballing. Despite efforts, no people of colour could be recruited. This is a reflection of the particular societal group I had access to. No participant withdrew from the research.

For becoming involved in this study, the participants had several reasons. These included feelings of altruism and pride in aiding other people and younger generations by sharing their experiences of compulsive interactions and negotiations of this aspect of their life. Some emphasized the lack of understanding and information of, as well as treatment for compulsivity. Reflecting on their own life, some participants saw involvement as an opportunity to discuss this aspect of their life with an informed and empathetic stranger. Participation also stemmed from curiosity about the qualitative character of the research and the methods, as participating in medical and clinical studies tends to differ strongly.

3.2.2 Ethics and positionality

As this study is a social scientific one, the applied research ethics for the involvement with and care for all participants are grounded in the Cardiff University ethical guidelines and requirements for social scientific work as set in 2015. The study was

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[13] At the time of the empirical study, Dr. Cara Verdellen was head of and clinical psychologist at the HSK Expertise Tics Centre, Den Bosch, The Netherlands. She and her colleagues asked the people with Tourette syndrome they treated with behavioural therapies if they would be interested in partaking in this study.

[14] Websites and social media platforms included those of *Stichting Gilles de la Tourette*, *Tourettenet*, and *Stichting Dwangstoornis*.

[15] This annual meeting was organised by the Dutch Patient Organisation in Baarn, The Netherlands on 18 May 2014

approved by the Cardiff School of Geography and Planning ethics committee in 2015. The empirical study was supported by Dr. Cara Verdellen, who is specialised in behavioural therapy treatment for people with TS as a registered clinical psychologist. Additionally, the informed consent form utilised was the standard version the Cardiff School of Social Sciences and translated into Dutch. All participants signed two informed consent forms; one of which was for them and the other for my archive. With the confirmation of the availability of a mobile eye-tracking system five months into the fieldwork, additional information was provided in a leaflet and was discussed extensively. All participants were anonymised and appear under a Welsh or English pseudonym that 'fitted with their personality' as I had come to know them by. Furthermore, all participants were guaranteed that all identifiable tropes would be omitted from the data and that the data would be treated as confidential.

In creating an environment in which the participants were comfortable with sharing their experiences with me and allowing me to witness their compulsive interactions and negotiations, a relationship of trust, empathy, respect, and support was crucial (after DeLaine 2000). Therefore, I organised the empirical study in particular ways. The most important guidance for the study was seeking to "do no harm" (Hay 2010, pp. 38, see also Murphy and Dingwall 2005). People with a Tourette syndrome diagnosis above the age of 17 are not categorised as vulnerable adults according to the Protection of Vulnerable Adults Regulations 2002[16]. Some of them did discuss their participation with a health professional and/or with a significant other. All found themselves capable of participation after they had read and discussed the recruitment leaflet with me. The potentially invasive character of this study was negotiated by leaving the participants in charge of their participation as much as possible. This is method specific and is elaborated on in detail in the Subsections 3.3.1, 3.2.2 and 3.3.3. Allowing the participants to adjust the ways in which the methods were employed resulted in a methodological diversification. Personalisation of the methods helped catering for different compulsive sensitivities, and may therefore have enriched the data (after Pink 2009). As such, circumstantial ethical concerns differed per participant, and determining what was right in each situation, and how to respond varied (Crang and Cook 2007).

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[16] People with Tourette syndrome are not denoted as 'vulnerable adults' according to the Protection of Vulnerable Adults Regulations 2002, because they are not "substantially dependent on performing basic functions", do not have "a disability to communicate or are severely impaired". As such, they are "capable of protecting themselves from assault or physical abuse or his/her will or moral wellbeing being subverted or overpowered"

Focussing on potentially debilitating performances by a person has certain ethical implications, as they are a source of anxiety (O'Connor 2002). Additionally, negotiations of compulsive urges and engagements are precisely adopted, agonised over, and perfected to render them invisible to other people (Ibid.). Being asked to share them and 'give their tricks away' can be experienced as entirely counter intuitive. This rendered the participants vulnerable to negative effects of the study's focus. These effects are further elaborated on in section 3.3[17]. Therefore, at the beginning of all research meetings, I explained what to expect, emphasized that they could stop at any time, not answer questions, stop activities without needing to provide a reason. This did occur, and I am aware that there are social mechanisms that may prohibit research participants from doing so (Bryman 2012). However, during any research meeting regular breaks were taken; on request of the participant, on my suspicion they needed one, and by dragging out any 'natural' pauses, such as another person or pet requiring attention, or transitions, such as between two eye-tracking sessions.

To help constitute a safe and positive research environment, I was aware of and negotiated my own presence in and impact on it. As a young, able-bodied, undiagnosed, and highly educated woman with affiliations to Dr. Cara Verdellen I had several privileges in comparison to the participants, which will have had effects on the ways in which I was perceived by them. In sustaining the participative character of the study, I negotiated these privileges by presenting myself in a number of ways in order to create a relationship of trust (after Spradley 2001). In addition to positioning myself as a researcher, I did this through positioning myself as friend whenever possible (after Everhart 2001), and without risking coming across as unprofessional (Bryman 2012). The fact that I do not have a medical or clinical degree but am sufficiently informed, was articulated in varying degrees between participants, with some using scientific jargon to check that I could follow. Mediating this was also helped by mentioning that I was advised by Dr. Cara Verdellen, who is known to several of the participants. As such, in comparison to medical and clinical researchers and professionals they would have encountered, I presented myself in a personal and informal fashion. Also, after 'leaving the field', I 'gave back' (Watts 2011) by being available for any kind of conversation about the project and the participants' lives, inviting the participants to a

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[17] In my capacity of a researcher I was also vulnerable to be negatively affected by research meeting, through being confronted with aspects of personal histories that I would find difficult personally. After such aspects, such as self-harm, suicidal tendencies, abuse, as well as painful compulsions came up in the research meetings, I reflected on them in my field note diary to deal with the effects. Whilst I have been subject to compulsive interactions, on a number of occasions, they were never problematic.

repeat lecture on the results requested by the Dutch Patient Organisation in May 2017, as well as promising to send them the finished dissertation and any other publication.

In articulating my personal narrative to this study, which has become an accepted and encouraged practice in social scientific research for the unique perspective it brings (Coffey 1999), I also presented myself as the sister of a person with Tourette's. With this presentation, I claimed (some) knowledge of compulsivity by having witnessed how daily life can revolve around it and the Tourette condition more broadly, as well as diagnosis, treatment, and social situations. This also meant that I would not act surprised or even shocked when they would tic, and they would not have to fear being confronted with common misconceptions (see Buckser 2008). Hence, I positioned myself as personally involved in the research and having the knowledge only people closely involved with person with TS can have. As I enquired, most participants felt they did not need to suppress all their tics and compulsions in my presence, which could be regarded a sign of trust as people suppress less around familiar people (see Meucci et al. 2009; Capriotti et al. 2013). Some explained that they used moments alone (e.g. in the bathroom, kitchen) to release the tension and "let some [tics] out", as Nora argued. Knowing that such moments would only need to last a couple of seconds I would also intentionally create them by turning away, and attending to anything away from them, which, for example, became visible in Sage's second eye-tracking session (see Subsection 3.3.3). Nonetheless, (a lack of) suppression cannot always be understood as indicating trust, as Elisa could not stop suppressing during the observation (see Subsection 3.3.3), which could be an effect of the method itself. I kept a field diary about any ethical concerns during meetings to remain reflexive in treating people fairly and with the right kind of care (after Manalansan 2006), and to construct a personal account of the meetings (Sanjek 2001). This helped to keep an eye on the evolving relationship with participants and the articulation of the power differential, and the impact of other people's presence.

I also mobilised my sister as a third subjectivity, or a 'compulsivity proxy', for her specific compulsions, negotiations, and experiences of particular places. Bringing Laura into the conversation occasionally opened up possibilities for bridging compulsive interactions and negotiations across participants, prompting particular sensitivities, and gauging their response to a restatement of a particular experience. In some cases it seemed to have helped participants in their considerations and formulations of their compulsions and negotiations (see Pink 2009). Additionally, in some cases I mobilised myself creating 'conscious partiality' (Mies 1993), in the sense

that I could have – undiagnosed – OCD or TS, based on genetics, the OCD in my family, and shared sensitivities with my sister, in order to think, or *sense* through particular compulsive affects. For instance, Nora commented on me rearranging a stack of papers: "See, you're doing it too: you have Tourette's yourself". Embodying this position might have given them the feeling I understood better than others without a TS diagnosis. Seeing participants perform compulsions I would put in words how my body resonated with the sensations, and without leading their answers, my fieldnotes reflect on this. I noticed:

> *"So what I say is important; the muscle tension, the exact posture of the body, the space as lived and felt, as well as the urge as lived and felt. Is not knowable from the outside. I am indeed approaching what it is, but can't reach it."*

As such, I was empathetic without claiming to know or feel like the other (Pitt and Britzman 2003; Rashed 2015). I made sure that my sensitivities would not lead to an overtly imagined intersubjectivity between me and the participant (Coffey 1999; Desjarlais 2003). Despite a reduced 'risk' of claiming expertise and the appropriation of the voices of people with compulsive experiences, I worked with them in a participative fashion (Chouinard 1997; Gleeson 2000) to "'overcom[e] alienation', rather than 'attain freedom from power'" Blencowe et al. (2015, pp. 397). Additionally, in line with Rashed (2015) on Schizophrenia, the various theoretical approaches this study takes, cannot overcome the radical otherness posed by compulsivity, as is congruent with phenomenological thought of psychopathology (see Jaspers 1997). This articulates the applied ethics of interpersonal human relations.

The broader study that seeks to deconstruct the medical and clinical renditions of compulsivity in order to reconstruct it as a spatial theory, requires a consideration of more-than-human ethics. With the increasing popularity of continental philosophy and its deconstructive tendencies in geography, geographers have sought to extend ethics beyond the category of the human, as tendencies commensurate with a decentring of the human required re-envisioning the conditions upon which ethics are based (e.g. Popke 2003; 2005; 2007; 2009; Braidotti 2006; Barnett 2010; 2012; Yusoff 2013). In positioning the human as equally powerful as the nonhuman, I accept that humans and nonhumans become equally responsible for compulsive interactions, and further compulsive relations between people and places (after Harman 2002; Ihde 2009). As human and nonhuman categories differ in the ways in which they contribute in the constitution of the compulsive situation, ethics emerge from the *conditions upon which* they contribute (see Lea 2009; Bingham and Hinchliffe 2008; Ash 2015). The ethics of

reconstructed compulsive interactions then inflect the relationships of the elements that constitute the spatial configuration. In other words, in Sage compulsively pressing her finger into the corner of the table, I argue for placing ethical concerns first and foremost between Sage's finger and the table corner, rather than only at Sage.

3.2.3 Organising the study

Environments conducive to capturing the experience and spatiality of compulsive interactions and their negotiations could only be determined by the research participants themselves. Unlike research spaces in medical and clinical studies, which include and are largely limited by the doctor's, therapist's and researcher's office (see Conelea and Woods 2008), I wanted the research spaces of this study to consist of a mixture of everyday spaces. Indeed, conducting the study about the particularity of places *in* these places helped to capture more aspects and details (Anderson 2004; Anderson et al. 2010). As discussed with the participants, these spaces came to consist of homes and gardens, supermarkets and small shops, trains and train stations, cars, natural areas and parks, cafe's, pharmacies, as well as town centres and streets. This presented a mixture of varying materialities, activities, publicness (Eapen et al. 1994; Goetz et al. 2001), cultural convention (Wilensky 1999), social 'safety' (Hollenbeck 2001; Van Bloss 2006), and presence of ingrained routines (Van Bloss 2006; Pink 2006; 2012). In these spaces, the dynamisms between bodies, objects, and space elements varied with the capacity for bodily mobility, object adjustment and touch(see Hetherington 1999; Clintberg 2014), sensory stimulation (Gerland 2003), as well as particular kind of bodily negotiations (Goetz et al. 2001; Davis et al. 2004). Whilst the intricacies of such wide variety of places cannot be generalised, I argue that such particularity can offer insights into the ways in which not-just-rightness is mapped onto body-object-space configurations.

By far the most research meetings were organised in the home. As argued by many of those experiencing compulsivity (e.g. Shane Fistell in Crichton-Miller et al. 2004; Van Bloss 2006), as well as indicated by Goetz et al. (2001), the home is a place where compulsions are most prevalent. Apart from the general absence of unfamiliar people, the home differs from other spaces for being a place that can be altered and adjusted at will to accommodate compulsivity in terms of appearance and object formation. This flexibility can also accommodate negotiations (see Buckser 2008), which render the home a place that could invoke a stronger diversity. Organising the research encounters in the home could potentially have been intrusive because of painful

memories and associations (Miller 2001), nonetheless, participants felt most comfortable there.

The first time participants and I met were informal meetings that were not recorded or subjected to informed consent, and took place in a friendly and conversational manner in most cases at their home. In these meetings I prepared them for the subsequent participative character of the study and the interview. In addition to a general getting to know each other, during these meetings we discussed the project and its organisation, as well as some of their compulsive interactions. Also, adjustments to particular aspects of the methods were made to meet the preference and concern of the participants, and thereafter we discussed and signed the informed consent forms. With six participants these meetings took place about a week before the interview was scheduled. After these visits, I noted relevant information, which in addition to the clinical tests were used in the preparations of the interview guide. With the nine others I briefly added follow-up questions to the general interview guide on the basis of the conversations.

During the initial informal meeting I asked participants to fill out two clinical diagnostic tests to gauge if there would be any relation between test scores that capture frequency and severity, and kind of compulsions and urge sensations. These tests are self-referential tests, which expect people to translate their experiences in difference in degree (see Cath et al. 2001). The Premonitory Urge for Tics Scale (PUTS) (Woods et al. 2005) is set up to measure the kind of urge sensation, prevalence, and effect in relation to tics. It turned out to be less suitable for compulsions of the interactive kind, and differentiating between bodily regions or the tics that followed the urge. Originally developed for obsession driven compulsions but also used for urge-driven compulsions, the Dimensional Yale-Brown Obsessive-Compulsive Scale (DY-BOCS) (Rosario-Campos et al. 2006) measures the kind and severity of compulsions within six dimensions. I only used the third dimension on "Symmetry, Ordering, Counting, and Arranging Obsessions and Related Compulsions" for its accommodation for compulsive interactions.

Filling out both tests proved highly problematic for almost all participants; many left blank spaces, required help, added notes explaining answers, and/or wanted to discuss complexities to their answers during the interviews. Therefore I quickly learned to leave it up to the participant when they would be most comfortable to fill them out. In case this happened after the interview, I would ask any questions about their answers during the research meeting after, and would note their argument in my fieldwork diary.

The richness of their experience and dynamism of compulsions did not translate into the reductively narrow test aim, as well as the fact that the test answers were categorised, the confusing examples that were provided, and the physical lay-out of the form largely include reasons participants expressed their frustration with. Ginny reflects:

> *"I am so compulsive with questionnaires – I had to fill out one the other day, and I want those things to be positioned differently, these answers, because it's just not right or eh.. (…) yeah, I get completely befuddled sometimes, because often it's just wrong."*

The ambiguity of their answers already demonstrated the effects of the lack of experiential knowledge of compulsive interactions in the clinical sciences. Nonetheless, their answers to the tests not only helped to direct the focus of the study towards compulsive interactions, it also to helped to start the interview as I would ask them to elaborate on their answers.

Alan, Elisa, and Sara provided extra information about their compulsions. They felt that it would help them communicate their compulsive interactions more clearly in case I would not ask, they would forget to mention them, or they would not become visible through the methods I had proposed. Alan had compiled a list of past and current symptoms for intakes for therapy and research participation. Elisa and Sara[18] had written a document to archive their conditions combined with major life events and personality traits. They had written the documents mainly for themselves, but also for new people in their lives to shape expectations and omit having to explain certain things. In addition to aiding activity choices for observations and eye-tracking, all three documents informed the interview questions, and were very helpful in steering the interviews towards compulsive interactions and their negotiations.

Elisa and Sara also provided video recordings of themselves in particular everyday situations that would evoke 'excessive' compulsive expression. Elisa video-recorded herself for 40 minutes while she was cycling to work. Although not showing compulsive interactions, the video does demonstrate how her urges to perform particular kinds of tics and negotiations are strongly related to her socio-spatial situation, and in my absence in particular (see also Goetz et al 2001). As Sara's observation did not

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[18] Elisa and Sara are friends and share their Tourette's diagnosis in addition to difficult experiences in their past. They have read each other's document and update it with the unfolding of their lives. They also decided together to participate in this study and discussed their participation experiences with each other.

demonstrate as many compulsions as she had expected beforehand, she recorded herself alone doing her morning rituals in a series of 4 short videos. These entailed activities that had not been part of the observations or eye-tracking sessions. In the recordings of both women the bodily environment remained invisible, as the cameras were pointed towards their face and upper body whilst they narrated what they sensed and felt, thereby addressing me directly. These recordings demonstrated how video methods other than mobile eye-tracking (see Section 3.3.3) would be problematic in capturing compulsive interaction between bodies, objects, and spaces. Handheld cameras could prevent performing them, as the camera needed to be pointed at the body part, object(s), and space element(s) involved. Moreover, a static camera in a room has a high chance for recordings to be blocked by the body or objects. Also, a go-pro camera mounted on a participant's head or chest would create too much discomfort, and the participant would have to angle their head or chest towards every compulsive performance. I did not extend a request for 'symptom lists' or videos to other participants, as the amount and invasiveness of the regular methods had already placed a large burden on them in terms of time, energy and emotionality.

Evaluations of their participation and its effects were documented through evaluation forms that I had left with them at the end of the last research meeting. Any kind of evaluation was welcomed, and to accommodate for differences in conveying such information, I added a notebook and blank papers for unstructured thoughts, and a survey style form with open ended questions about the research style, communication, the methods, their relation with me, participation effects, and concerns. They came with two envelopes one addressed to me and one to my supervisor. I received five back. The effects of the different methods have been added to the sections below.

The research design as set out in this section supports and develops the study of medicalised performances through a social scientific methodology. I also explained how conducting research on a phenomenon included in the Tourette syndrome diagnosis can take place by rendering the body mobile and outside laboratory conditions. As such, I set out how familiar spaces to participants provide a relevant articulation of compulsions. Furthermore, I explained how the participative character of the study, and a commensurate caring and trusting relationship between the researcher and participant can optimise information about the kind of compulsions, and what ethical implications this has. The latter included the suggestion to shift the ethics emerging with compulsions from the human towards including the human and within

the body-object-space configuration. The analysis sections in the next chapter provide further proof of the success of such an approach through the means of this study.

In this section I elaborated on the mediation of access to compulsive interactions via people with a Tourette syndrome diagnosis. Furthermore, I explained the applied research ethics upon which the study created an atmosphere conducive to access as many kinds of compulsive interactions as possible through the engagement with research participants. In line with the distributed intentionality and the human/nonhuman configuration I conceptualised compulsive interaction as, I also argued for a posthuman ethics of compulsivity. Lastly, I explained the design of the study in terms of research sites, initial meetings, the mobilisation of clinical diagnostic tests, as well as unsolicited information provided by three participants. Building on this organisation, in the next section I expand on the methods employed.

3.3   METHODS

To understand how compulsive interactions may emerge with particular body-object-space configurations, how their negotiations may intervene, and how this might explain certain aspects about person-place relations, I adopted three methods: semi-structured in-depth interviews (Subsection 3.3.1), participant observations (Subsection 3.3.2), and mobile eye-tracking (Subsection 3.3.3). These methods were designed to be enable formulating answers to all research questions. This section elaborates on the ways in which I mobilised them, and, as such, the study is based on 15 interviews 14 observations, and 30 eye-tracking sessions, followed by 21 interviews on the basis of the recording, in addition to fieldnotes. Thereafter, it explains the analytical procedures for all methods (Subsection 3.3.4). This demonstrates how the onto-epistemological underpinning and research design informs the ways in which the data is gathered and analysed from which this study makes it claims. With this I offer a research strategy that captures compulsive interactions as commensurate with the theoretical disposition developed in the literature review. Additionally, it comprehensively captures compulsive interactions and their negotiations by overlapping and connecting the three dimensions covered by the methods. Whilst pursuing an ethics of qualitative difference demands accepting that compulsive interactions and negotiations are always partial in their appearance, I argue that their collective understanding creates a tapestry that articulates compulsive body-object-space configurations with which new kinds of person-place relations can be recognised and interrogated. Ethical considerations of

each method are discussed in the relevant subsections that follow.

3.3.1 Interviews / Experiencing compulsive interaction

The 15 interviews with a total duration of 27.3 hours serve a number of goals in uncovering the ways in which compulsive interactions are performed and negotiated, and how performing them reflects back on person-place relations. In particular, it helps to understand the human positionality in compulsions and the ways in which subject formation takes place in relation to perceptive and spatial processes. Interviews have been used extensively in geographical work on medicalised conditions that are associated with compulsivity (see Subsection 2.2.1), they have mainly been mobilised for psychoanalytical purposes, in which the data was interpreted to uncover meanings (e.g. Parr 1999; Davidson 2000; 2010; Davidson and Henderson 2010; De Leeuw et al. 2017). However, in this study this was not necessarily the case (see Subsection 3.3.4). Indeed, I mobilised the interview method to provide information on the ways in which different kinds of compulsive engagements are determined and how and when objects and spaces become involved. The interviews were also the best method that could capture urges preceding acts or negotiations, the not-just-right feelings prior, during and after the interactions, and heightened sensitivity. Furthermore, the interviews aimed to point out what kind of negotiations were performed in what situation, and how a history of negotiating the urges was valuable to the research.

I would keep an informal dialogue going until the start of the interview as a way of easing the participants into the more formal part of the meeting, to help them cope with the pressure of being voice recorded and asked to talk about very personal issues. A number of short breaks were taken depending on the participants' requirements. During some interviews, partners or children would join in, which in some cases would prompt new topics, and gave a glimpse of the reception of the performances in the household. Often unsolicited but relevant information was offered before or after the recorded part of the meeting was noted in my fieldwork diary (after Hammersley and Atkinson 1995). All interviews were recorded on a digital device, except one when the recording device malfunctioned. In this case I recorded myself recalling as much as I could from the meeting.

The interviews were based on the filled out clinical tests, the information that had become available in email correspondence and during the initial meetings and in three cases also the extra pieces of information. I used this information to formulate person-

specific interview questions and reformulate more general questions that were divided into three themes; 'compulsive interactions', 'personal compulsive histories', and 'negotiations and coping' (see Table 2). Most of the time I would start with asking after their history with compulsivity and Tourette's more broadly, which had the character of a life history method (Miller 2001), and gave them the opportunity to adjust to being interviewed. These histories served to contextualise the way they might regard the compulsive tendencies of their body, what professional aid they pursued and its success, and that shaped the ways they negotiate performing compulsions.

Compulsive interactions

Experience of compulsive interactions and urges, not-just-right feelings and heightened sensitivity; experience of different places; effects of activities and routines; bodily positions and movement; effects of specific objects, textures, forms, temperatures; presence and behaviours of others; other circumstances that have an effect on their compulsions (e.g. time of day, day of week, holiday situation, weather)

Personal compulsive histories

General history of the Tourette's condition with the person in relation to particular places and institutions; influence of familiar and unfamiliar people and animals, wellbeing over time, anxiety and mood associated with compulsions; 'acceptance' of the disorder and its role in daily life

Negotiations

Experience with therapy and medication; accounts of (positive and negative) feedback from familiar and unfamiliar others; adjustment to particular situations; urge suppressions; coping strategies in specific places; object placements; bodily positions and movement; altered perception (e.g. being tired, wearing glasses/contacts/sun glasses, wearing gloves)

Table 2: Overview of the topics in the interview guide

The interview guide has mainly been used as a reminder of topics to cover with this particular participant as I followed the participant's trail of thought, and asked questions from the guide that were close to it. The clinical tests proved very helpful in prompting both them to remember symptoms and me to ask for more detail or build a bridge to a related topic on the list. Although most participants were keen and confident in talking about their experiences of tics, they were less familiar discussing compulsive interactions, and needed to be guided (see Kvale 1996). It was possible to excite participants to talk about these experiences by providing examples of compulsions and

negotiations of my sister or other (anonymised) participant's answers (after Barter and Renold 1999). Furthermore, as the three clinical categories of 'touch tics', 'symmetry seeking and balancing acts' and 'ordering acts' proved inadequate to capture the compulsive interactions discussed (because of overlap and not covering the whole breadth of compulsions mentioned), I mobilised them as aspects, rather than kinds. For instance, for Joe, touching an object in a particular way may be performed as a way of 'checking' if the eyes have seen something 'right'. The interviews thus accommodated for meanings and emotional aspects of compulsivity if the participant wanted to discuss it on such terms. I closed all interviews off with the question whether compulsive interactions had any meaning to be able to be able to explicitly attend to whether, and in what ways compulsivity relates to the self, as experiential accounts dispute this relation (see Chapter 2).

The Tourette's condition beyond compulsions shaped the interviews in a number of ways. Whilst I talked *with* them as strategy to encourage them to memorise and mention what they could consider irrelevant details, the reverse also occurred in about half of interview situations. It could have been an articulation of the anxieties that lace formal interviews, and/or as articulations of their tendency for verbal repetition (echolalia in clinical terms, see Section 2.1.2). Repetition of my words would restrict to the first part of the sentence, which I negotiated with keeping my sentences as open-ended as possible to avoid leading them (Bryman 2012). This might also have been the case because, as expected, most participants struggled to recall particular compulsions. Furthermore, during the interview rhyming, sounds, enforced speech, and some vulgarities had to be uttered. Dylan explains that the latter (coprolalia) carries no meaning, and as such did not have any impact on the interview: "Sometimes I just vomit words which, later on, I think of, like, heh? Huh?" For Dylan that included "sieg heil" "heil hitler" at the time of the interview. Expressing his frustration with this, he argues "I'm not a national-socialist, so… it has nothing to do with my political preferences! (…) it's hurtful, therefore it happens". He is relieved it only happens "at home during the rebound" and the tic "so far hasn't bothered him outside actually". Whilst such utterances did not change the content of the interview, suppressing them did cost energy that tired participants, and the excess energy would intensify any other-than-compulsive emotional expression.

Interviewing people about aspects of their lives they might not be entirely comfortable had ethical implications. Recalling difficult periods from their past, especially with regards to the period before they were diagnosed had often been laced with suffering,

as well as going through teenage years, and having to accept that fulltime education or work would probably not be possible. Apart from remaining nonjudgmental (Kvale 1996), my experience with my sister helped me help them to put in words what they wanted to say – and what not. There were differences in how personal participants' stories would become and how quickly they were comfortable with conveying private aspects. Depending on how comfortable they appeared to me, how well we bonded, and if I could sense or know of a trauma (e.g. eating disorders, abuse, self-harm, suicidal tendencies) when discussing certain topics if I would ask them to further expand on these topics. When such traumas were brought up, I would not enquire further, let them decide what they wanted to convey, and offered reactionary support. This approach worked for a number of participants, such as Alan, who argued "just like with that psychologist, I am at ease with you – you calm down". I also made sure to 'cool down' the interview as the situation required (after Luker 2008). Furthermore, whenever possible I would put the voice recorder out of the participant's sight to reduce associative stress and distraction. Those who have reflected on their experience of the interviews via the different ways of feedback were very positive.

As many of the compulsions I asked participants to elaborate on in depth were difficult to put in words, many participants offered to 'demonstrate' them (i.e. to interact without waiting to feel urged to). Demonstrations also included compulsive organisations of objects, or entire rooms that had been brought in line with compulsive requirements. As such, the largely static interviews shifted to mobile interviews, presenting spaces of the house as an 'archaeology of compulsive knowledge' (after Anderson 2004). As such, in addition to intentional demonstrations, the interviews provided ample opportunities to observe compulsive engagements, as I noticed them, or when evocative situations arose. The latter happened when Elisa received a parcel during the interview. Straight after she closes the door and steps back into the living room where I am sat, she says:

> *"This one is for my partner, but I always <u>have</u> to unpack parcels, I can't… *rips plastic* so… I just can't eh eh… parcels, that's eh, that needs unpacking *opens box* so this is <u>pure</u> compulsivity you're witnessing! *grins*"*

These instances prepared me in focussing my attention during the observations. Therefore, whilst the research methods were clearly demarcated in time, practice, and purpose, in practice the methods had flown into each other. Indeed, the interviews also set a style of communication during the observations in which participants would explain and think through compulsive engagement and negotiations and new insights they had after the interview without being prompted. On some occasions, the only

difference between the interview and the conversations during the observations was that the latter was not audio recorded. I did, however, write everything I could remember in my fieldnotes diary after the session if I did not have a possibility earlier.

Five participants told me about the effects the interview had on them after I left. Negative effects included fatigue for up to a few hours after the meetings, or hangover feelings as Mina argued. Some also stated that they ended up reliving the meeting in their mind for a few hours. After I had learned about the effects in particular the interview could have, I told participants with whom I had scheduled an interview about these potential effects. Discussing their symptoms and condition in general may have caused participants to rethink them and regard them differently; potentially in a negative manner. In turn, such consideration also had therapeutic aspects that were pursued by a number of participants. Siôn approached me as if I was a mental health professional, expanding on his life beyond compulsivity and Tourette´s related aspects, engaging me in broader discussions about meaning in life, religion and altruism. Ginny had a similar disposition and frequently asked me questions on experiences of my sister and other research participants, in particular for knowing how common or uncommon her experiences were.

This subsection on the interview method thus explained how the study is sustained by the experience of compulsive interactions. It informs the study on which particular compulsions happened where, and with or without which people in the vicinity. The interviews also contribute to knowledge of the ways in which sensory processed where experienced and in what ways they shaped the conditions upon which compulsive engagements between people, objects and spaces take place. Furthermore, the method captured the various historical aspects that had shaped the relationship with their compulsive bodily performances, including their medicalisation. As such, employing this method allowed mapping the subjectification processes that underpin compulsive interactions and their negotiations. With elaborating on the interview method I constituted the ways in which, through retrospection, the human becomes involved in the spatial configurations between bodies, objects, and spaces in compulsive moments. So far, this leaves unexplored how aspects of compulsive body-object-space configurations and negotiative interventions take place outside retrospection. The interviews thus offer a human historical point of view, but lack an appreciation of the immanence of configurations between bodies, objects, and spaces (after Kusenbach 2003). In the next subsection I explain how my employment of the participant observations attends to these dimensions.

3.3.2 Participant Observations / Seeing-Doing Compulsive interactions

In the previous section, I explained how the interview method provides retrospective accounts of the experience of compulsive engagements and the premises this sets for their negotiation. In also enabling attendance to the sensory processes that guide compulsive interactions between bodies, objects, and spaces, the largely static interviews thus helped to grasp mainly aspects of the human contribution to compulsive person-place relations. Building on the contribution of this method to the study, this section expands on how I attended to the nonhuman aspect by observing the mobile human body amongst objects and with reference to the spaces in which compulsive interactions took place *as they took place*. As such, what follows is an elaboration on how I mobilised participant observation to capture compulsions that did not produce a memory or happened in full awareness, and that what cannot be conveyed in language. The ethnographic 'onlooker' perspective on compulsions gave me the opportunity to see how 248 registered compulsions and 2.5 hours of ongoing compulsive activity unfolded between other-than-compulsive life, how this difference articulated, and what this implied for negotiations. Employing this method then allowed me to attend to the nonhuman extracorporeal dimension of compulsive interactions without mediation via the human. The section first turns to the method, then I elaborate on the practical conduct, the subsection thereafter expands on the ethics of the method and how I navigated any concerns, and concludes with the contribution to the methodological literature.

As the medical and clinical sciences are underpinned by observations, as is the hallmark characteristic of positivist empirical research, urge-driven phenomena are often studied through observational analysis. However, in the observational methods employed in these fields, only purely bodily tics can arise. Lance Turtle with a Tourette's diagnosis (in Turtle and Robertson 2008, pp. 451) regards this as potentially problematic;

> *Only I am with me all the time, however, so only I can see the truly chaotic nature of the day-today and hour-to-hour variation in my tics.*

These observational methods render the body static and seek to separate it from its context, which impedes the appearance of urge-driven compulsive interactions (see Beljaars (under review). Hence, for observing compulsive interactions, the social scientific methodology guiding participant observation is more appropriate as it understands the material and social context of phenomena to be constitutive of the

phenomenon focused on (Pink 2012). Indeed, participant observation is a method where understanding about the relations between the body and its context can be developed for the study of medical conditions (e.g. Davidson 2003; MacPherson 2010; Raymaker and Nicolaidis 2013). Nonetheless, for this study, I did not mobilise participant observations in the way classic ethnography prescribes. Indeed, I have not immersed in the study situations as I could not participate in the compulsive interactions as experienced by those involved (Pink 2003). Additionally, the observations in this study captured bodily interactions as performed outside human intention, purposefulness, and meaning: not culture, shared practice, and not primarily sociality.

Participant observation as employed here attends to the performative and pre-reflexive knowledge, capturing communication beyond language (see Buller 2014) and introspection (Glaser and Strauss 1967), and helping to retrieve the trivial details of everyday experiences only made possible through being mobile (Kleinman 2001; Kusenbach 2003; Czarniawska 2007). As such, it provides participants with the possibility for experiential reflection on compulsions and negotiations observed, and allows for attending to aspects that may seem insignificant to, or go unnoticed by the participant at the time (after Kusenbach 2003). The observations were sensitive to differences between what was said during the interview and what happened during observed performances of compulsions (after Eyles 1988 in Herbert 2000). As Herbert (2000) suggests, such differences can be a direct result of different bodily situations, which is supported by earlier experimental clinical research by Goetz et al. (2001). Also, the observations showed how compulsive and other-than-compulsive interactions intertwined.

In recognising compulsive from other-than-compulsive interactions my sensibilities developed through having lived with my diagnosed sister, as well as through extensive discussions with her and Dr Cara Verdellen. 'Learning' to recognise compulsive engagement per participant was helped by all prior meetings (including with recruitment attempts), which gave me an idea what to look for during the observations. Before and during the observations, I looked for changes in the smoothness and disruption of movements, as well as the way in which movements fitted with their intentional engagements. In case I felt that these did not fit with these acts I would write them down as compulsions. Nonetheless, in the moment and in situ, my sensitivities became most important. Depending on the situation and the participant, compulsive engagement unfolded whilst commented on at the time, after the performance, and/or

after the session. Also, in some instances, such as with Mina, participants 'taught' me how to do a particular touch tic by telling me synesthetic intricacies of their engagement. As such, on occasions, I joined their embodiment without claiming to feel what they felt, but to grasp the felt knowledges that pervade compulsive interactions (after Haraway 1991, in Despret 2013). In doing so, I rendered my own body 'responsible' to our shared environment, and could be understood as a way of being sensitive on terms of another (Mol 2002; Despret 2013). Nonetheless, if I was unsure, I asked the participant if they considered what I observed had been compulsive.

As commensurate with the participative character of this study, the participants decided on, and had the lead, during the activities for the observation, as well as the time, place, duration, and the presence or absence of the diary. Doing so gave them control over the observation situation and left them in charge of the amount of tension they were willing to cope with. The activities were chosen in terms of the increased likelihood for evoking compulsive interactions. Helping them think through possible activities I provided some examples based on the pilots I had conducted with my sister, and experiences from prior sessions with other participants.

The observations lasted between 20 minutes and 3 hours, which was highly dependent on the activity and the energy and concentration level of the participant at that time. On the one hand, the observation of Sara took only 20 minutes because she had just had therapy and was tired, and I could only observe her for 20 minutes of the journey to her place. Although she offered, I did not feel comfortable to continue observing. On the other hand, I had joined Ginny during a day in which she had a number of short activities planned, and was happy for me to observe as long as I wanted to. This allowed me to observe her in multiple environments doing multiple activities over a 3 hour period. She was very energetic throughout the observation and did not seem bothered with being observed, and even said she forgot several times. As expected, the amount of compulsions I could identify differed greatly amongst participants, ranging between 3 and 63 per session, and varying greatly in complexity and kind. For all participants except Sage one observation has been performed. In addition to her first observation at her school, Sage agreed to do a second observation at her home where she performs most compulsions.

Taking notes during the observations made most participants rather self-conscious. Therefore, I had offered all participants to do the observation without diary as the sight of me writing in it could produce insecurities. During some sessions, taking notes felt so inappropriate that I refrained from noting them there and then. Instead, I wrote them

down as soon after the sessiond ended. In addition to the compulsive engagements themselves, any other relevant occurrences during the observations were recorded in the diary (e.g. places, space effects, other people noticing, the occurrence a compulsions was related to). I had devised a list of abbreviations to be able to note compulsions without having to look, and although I had planned to write up these headnotes in full fieldnotes (Emerson 1995; Sanjek 2001) before they get 'cold' (Mead 1977), I ended up not doing so. This was because they were not only difficult to capture in words, and exhaustive accounts of all compulsions would have to be written, and still these would not be 'complete' (Jackson 2001). In fact, all compulsions I attempted describing in words failed to be captured because of the performative and synesthetic dimensions. Indeed, I was only to put them in words satisfactorily *within the context of the analysis* in which I mobilised them.

The participant observation presented a number of ethical challenges. The pressure of being observed can be considerable for any person, and for those performing with a Tourette's diagnosis this is likely to be higher for the unwanted movements they have to make when these are not suppressed. These anxieties seemed to have shaped the emergence of compulsivity with the participants' bodies in two obvious ways. During and after the sessions, most participants argued to have performed less than they had anticipated before the observation started. This was also the case for Elisa who wanted 'to throw everything out', but found she could not, and needed to do considerably less compulsive acts than on other occasions when cleaning her living room. With Nora, not many compulsive acts appeared, but those that did, she had not anticipated on showing and had been ones that she would perform only when alone or with close relatives. To provide as much reassurance as possible, the method was extensively discussed on the practicalities to create an image of what being observed would be like, explaining what my sister did while I piloted the method and how she experienced it. Also, the presence of familiar other during the observations was encouraged, and on some occasions we were joined by partners or children, such as during lunch, which could take some of the pressures away (after Kusenbach 2003).

During the sessions, I ensured to be very discreet in looking at the participants' performances by looking in their eyes when they spoke. More importantly, I also looked away many times to allow them to do bodily tics to make sure they did not have to do this with me watching. In avoiding standing or sitting directly opposite them, often I observed them from the corner of my eye. Also, I avoided questioning their movements as much as I could. Furthermore, retaining a friendly and informal communication style,

I kept our preferably not TS-related conversations going during the observation (Miller et al. 1998). This worked to distract participants from being observed, and seemed to help reducing tension, and in turn, would increase the possibility for more compulsive interactions to be performed. The mundane activities embarked on during the observations also helped distracting from the observational aspect. As these would often either be chores, such as cleaning or doing groceries, or enjoyable but necessary, such as having lunch, the activities were personally useful and were argued to feel less like a chunk out of their day. This helped take away most of the anxieties.

On several occasions, the observations took place in a public place in the presence of unfamiliar people or a mixture of familiar and unfamiliar people. Having in-depth knowledge about the kinds of public spaces visited and the social norms that pervade them helped me to understand how they negotiated these spaces, and how that related to what they might have argued in the interview. Therefore, I stayed with the participants, without it catching attention from others, and appeared friendly or collegial with the participant. In supermarkets and shops, this was most tedious as I did not participate in gathering items on the grocery list, getting through check-out, and loading bags in the car. I kept my diary out of everyone's sight as much as possible. On a few occasions, unfamiliar or familiar others started talking to either the participant or me, and in these instances, I would let the participant take the word and/or pretend I had not heard them. One instance stands out. A cyclist could narrowly avoid cycling into Cai, who did not like the cyclist on the curb where we were walking and deliberately walked in front of him. For a moment, words were angrily exchanged. The 5-second situation caught me by surprise, but in the moment I decided to prioritise the trusting relationship we had built up therefore, I remained passive.

I did not disclose studying the participants in these public places, apart from once. Sage had asked and received permission for the observation to take place during a seminar in which she gave a presentation, hence I identified myself to the lecturer before class started. I concealed my identity as researcher for the students to keep unwanted attention at bay, which was possible as it was not uncommon for students to not know everyone taking the module. I was sat at an angle 10ft. away from Sage, and pretended to listen to the various presenters, whilst keeping an eye on Sage, and making notes that could not be read by the students next to me. After her presentation – discussing stigma and the Tourette syndrome diagnosis – we left the room. Sage was not particularly anxious about the observation, and was content with how the observation had unfolded.

The way I have employed the participant observation method created a perception of compulsive interactions in particular ways. Although I have been able to capture the compulsive interactions on which the study is based, the observations did not cater for capturing for compulsions out of my view, such as performed under the table, on the other side of the body, or as concealed through clothes (see O'Connor 2002). Also those interactions that looked or where made to look intentional, or those that took longer and did seemingly and not necessarily disrupt the bodily flow as the shorter ones. Furthermore, the compulsions that involve the placement of the body in relation to the spaces (see Bliss 1980; Wilensky 1999; Van Bloss 2006), and are based on proprioception. Crucially, negotiations were also very difficult to observe for obvious reasons, as these would also have been adopted with regards to my presence. As the observation required most of my visual attention to all parts their body and its spatial relations, I needed to remain inconspicuous in my activity to the participant and others, and keep the conversation going, noticing the lesser obvious observations proved to be too much. Taking up Turtle's (Turtle and Robertson 2008) argument in the beginning of this section would suggest merit in spending extensive amounts of time with participants to see which compulsions would be performed. However, in practice this was impossible due to ethical reasons, and based on the outcomes of the study, I argue that an extended, more systematic observation it would not produce generalizable outcomes such a method would suggest.

Despite the practical problems, the participant observation method as I employed it contributes to the development of research methodologies in Tourette's as it documents a systematic way to engage with compulsions kinds. In addition, in response to Lance Turtle's claim, participant observation as I mobilised it can help provide a broader understanding of urge-driven compulsivity and the Tourette's condition more broadly outside doctor's offices, therapy rooms and hospital chambers. As such, I argue that this study augments the positivist observation methodology with a social scientific one that might be hopeful to help constitute a bridge between the research traditions (see Beljaars, in review). Furthermore, this method contributes to ethnographic research on multisensorial and embodied natures of person-place relationships (See Paterson and Dodge 2012; Paterson and Glass 2018). As a method that has traditionally been employed for psychoanalytical approaches, this study contributes to developing it for spatial theoretical, and performative methodology more broadly.

In summary, this section expanded on the ways in which I attended to the mobile human body amongst objects and with reference to the spaces in which compulsive interactions took place *as they took place*. In mobilising the participant observation method, compulsions were captured that did not last a memory or happened in full awareness of the participant, and what they could not convey in language. The participant observations provided detailed insight in the ways in which compulsions unfolded between other-than-compulsive activities, how they differ in kind and how that is related to the spatial situation. Employing this method then allowed me to attend to the nonhuman extracorporeal dimension of compulsive interactions without mediation via the human. However, it did disappoint on the limited ways in which I was able to trace the spatialities of negotiations of the compulsive tendencies. Nonetheless, the third method of mobile eye-tracking builds on the interviews and observations by allowing more attendance to negotiations. Additionally, the next section elaborates on how mobile eye-tracking captures the appearance of the extracorporeal by taking the visual and auditory perspective of the participants.

3.3.3 Mobile Eye Tracking / Performing Compulsive interactions

In exploring how compulsive interactions emerge with and are negotiated within particular body-object-space configurations, and what this might teach us about person-place relations, I mobilised a mobile eye-tracking method. This approach builds on the retrospective and experiential accounts of the interviews and the unfolding observations from an onlooker perspective of the participant observations by adding an in the moment and in situ visual and auditory first-person perspective on bodily compulsive engagement. As such, the method captured the extracorporeal, and accesses the nonhuman aspect of compulsivity. Approaching the experience and spatialities of compulsions from this third epistemological angle was possible through the commercially available Tobii Glasses 2 system. Wearable eye-tracking devices are glasses mounted with a small HD camera and memory that records the gaze of the wearer when looking straight ahead (see Figure 3). This technology sends a laser to the back of the eye onto which it reflects, 'hitting' the special glasses that registers the passing of the laser with the movements of the eyes. The result is a video with a red dot that represents the location of what is looked at, or gaze fixation (see Land and Tatler 2009). In total, this method contributed 9.5 hours of eye-tracking recordings with an equal 9.5 hours of ongoing discussions with 14 participants in 30 sessions, and 21 interviews with a total duration of 9.75 hours to the empirical study.
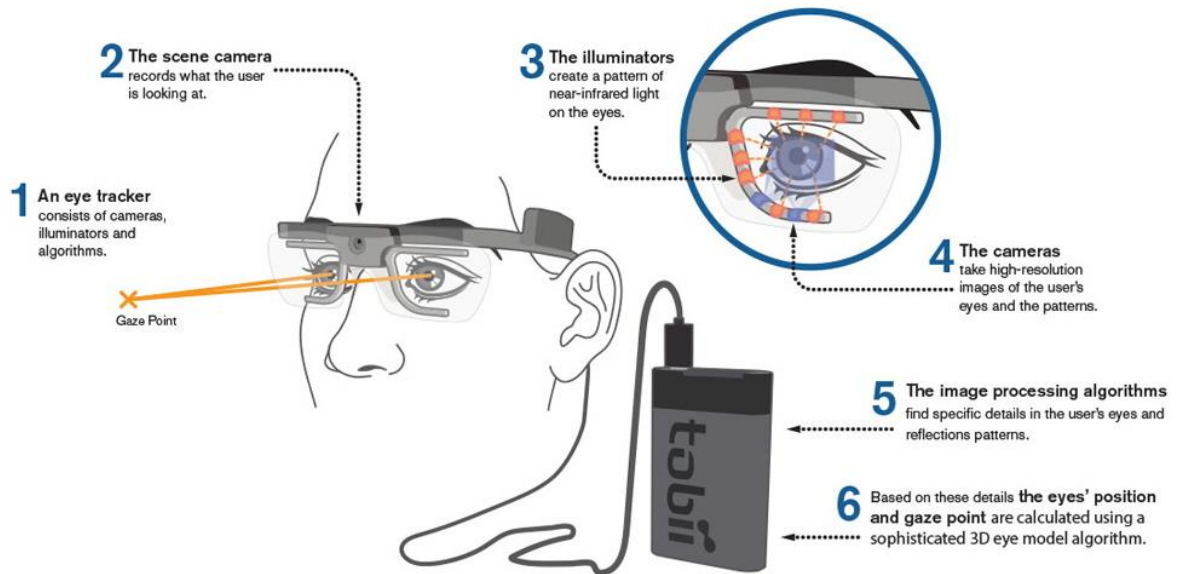
Figure 3: Diagram of the working of the Tobii Glasses Eye-tracker 2. Image taken from Tobii.com (https://www.tobiipro.com/learn-and-support/learn/eye-tracking-essentials/how-do-tobii-eye-trackers-work/)

Before starting a session, the device needed to be positioned in accordance and calibrated to the eyes of the wearer, using adjustments, such as darkened glasses and different nose pieces that come with Tobii Glasses 2. This resulted in recordings with a general match between the red dot and actual gaze fixation. As a result, the 'locating fixations' (see Land and Tatler 2009) that establish the location of objects before engaging them in an interactions could be traced with more or less precision, as appeared from the discussions in the interviews based on the recordings, and as was later used in the analysis of the eye-tracking recordings. Also, the laser system could not register all gaze angles (especially looking downward was problematic). Whilst this prohibited analysis of the gaze prior, during and after compulsions and negotiations, the red dot was mobilised on its indicatory capacity where possible. In the absence of a gaze analysis, the recordings still provided a first person perspective on the compulsions and their negotiations (see Appendix 1 for a selection of stills capturing compulsive situations).

Mobile eye-tracking devices have originally been developed for quantitative research in the neurosciences, psychology, engineering and marketing (Duschowski 2003; Horsley et al. 2014). The supporting technology has evolved from static eye-tracking methods that register the gaze fixation on a sensitive monitor. With the wider availability and increased user-friendliness, the technology has become more commonplace in

neurological and psychological research – although, to date, not in Tourette's research – as well as sports sciences. Despite video methods becoming a more accepted research method, mobile eye-tracking is relatively new in the social sciences, including human geography (see Beljaars and Anderson, forthcoming). Mobile eye-tracking produces a spatial composition of the human with the nonhuman articulating relations between perception and action. It provides insight in the spatial relation of the body with objects and spaces in terms of bodily reach and position, and the appearance of involved materiality, freezing it as percept in the compulsive moment (after Wylie 2006). In conjunction with other video methods, mobile eye-tracking technology can be regarded to 'adopt' percepts, but unlike these methods, mobile eye-tracking adopts those percepts that grasp the bodily environment as it appears in compulsive situations. Nonetheless, as Gillian Rose (2016) reminds us, situations are always excessive to the visual methods that capture them in multiple ways; not only through inclusion and exclusion to the frame, but also to the spatial organisation of the visual composition produced by this framing (Ibid.) (see Figure 4).

Figure 4: Still of the composition of Elisa's back garden as captured by the mobile eye-tracker

As with any visual method, eye-tracking technology can be regarded to be active in producing the visual and auditory perception of bodily interactions (after Kittler 1999). At least, such a stance reflects postphenomenological rejections of a separation between technological gazes – and therein scientific gazes – and the 'real' (Hoel and Carusi 2015) on held up by phenomenology (e.g. Merleau-Ponty 1993, Seamon 1980).

Rather, different technologies, including mobile eye-tracking are understood to *create* a particular visual account of unfolding events (Ash and Simpson 2016). Instead of understanding mobile eye-tracking as an epistemological approach to access compulsive interactions, such postphenomenological concerns stimulates considering eye-tracking technology as *way of perceiving* in and of itself (see Ihde 2009). In the absence of interpretation, using such technology demands paying attention to the perceptive processes with which compulsive interactions and their negotiations articulate. Effectively, mobile eye-tracking adopts the first person perspective whilst postponing an immediate invocation of subjectivity. In the absence of subject-object dimensions, this method then demonstrates the conditions on which compulsive interactions are experienced (after Ihde 2003; Lea 2009). As such, mobile eye-tracking decentres the human and renders it ontologically equal to the more-than-human. Indeed, as it only records the body parts involved in the interaction, the human as more than body parts becomes an absence (see Romanillos 2008). As such, it quite literally flattens the human amongst the more-than-human; wood bordering stone bordering lines bordering blue bordering movement bordering skin.

In this study, mobile eye-tracking helped augment the narrative interview method and observations to understand compulsive interactions and their negotiations. In addition to a partial first-person perspective, mobile eye-tracking captured aspects of compulsions that could not be communicated in words, and as such "extend[ed] sensory vocabularies" (Spinney 2011, pp. 163). These aspects do not only consist of the pre-reflective dimension, but also of the difficulties in translating the experience for those who do not have the compulsive experiences centred in this study. It also captured the details and collective thrust of objects and spaces that failed in being recalled, my notice, and/or my field note jottings. This demonstrated the details of object involvement and negotiations such as in social situations. Perhaps contrary to expectations of the leading role of the visual in compulsive interactions, a number of compulsions captured demonstrate an absence of visual engagement during the compulsion. Moreover, as with other video methods, mobile eye-tracking can provoke viewers to empathize with and imagine multisensory embodied experiences and not simply the aural and visual worlds of others, but can be felt in one's own body (Pink and Mackley 2012). However, this very aspect makes the method fundamentally invasive (after Laurier and Philo 2006).

Being video recorded is associated with an increase in tics (Cohen et al. 2013) or increased suppression (O'Connor 2002) in conditions that rendered bodies static and

when alone in familiar everyday places (Goetz et al. 2001). On the basis of these results, I suggested for participants to choose one, two, or more activities that would induce compulsions in a place, and for a duration that they were comfortable with recording with the mobile eye-tracker. Organising it in this way created situations that would evoke a wide diversity in compulsive interactions, without overwhelming the participant. Conducting the mobile eye-tracking method in itself had a number of effects that contextualise compulsive interactions and their negotiation, as well as body-world relations more general during the sessions. This expressed not only in the unfamiliarity of the technology but especially the way the technology framed the participants' experience of their compulsions and body more broadly. Sage remarked:

> *"What you look at is kind of really rather private, so I'm finding it a kind of strange idea that somebody looks with you doing stuff… you feel kind of spied on [I offer to sit outside on the balcony] I don't really mind it, it more like you're far more aware of your compulsions, and you already are because you're wearing that thing (…) I'm wondering if it influences my acting, but I couldn't really say"*

As compulsions in and of themselves are not a reflection of either the person performing them or a social situation, the presence of the eye-tracker did not actively play a role in ways in which compulsions needed to be performed. It did, however, influence the appearance of the extracorporeal for the wearer. The glasses tended to render the environment a little greyer, cut off a horizontal strip where the glasses have a ridge above the eyes, and prohibited bodily movement slightly because of the wire thread and battery. In what ways this altered body-world relations to the extent that compulsive urges would not emerge is unknown. In terms of capture, the body parts that people generally look at (e.g. hands and arms) when interacting dominated the recordings, whilst others mostly stayed out of sight.

The technology, the device and the utilisation of the mobile eye-tracker in the research was extensively discussed with all participants to ensure informed consent for this part of the study[19]. As with the other methods, I emphasised that they had total control all aspects of the process. Depending on the activity, most participants agreed to the suggested two sessions, but the durations per session differed. During the sessions, I kept a close eye on discomfort or stress, and frequently asked how they felt. Following up on all preferences of the participants seemed to have minimised their discomfort.

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[19] The eyetracking method had been included in all consent forms with a sub clause ensuring the availability of extra specific information on this method when it would become available.

Participants argued that the device did not evoke or inhibit any tics, including violent head and neck tics, jumping, and twirling. Varying with the preferences of the participant and depending on the activity, I stayed in their vicinity for assistance and a chat. During some sessions, participants were happy for me to watch the live recording, in others they were adamant I did not, and for most I chose not to watch it to reduce anxieties commensurate with the usage of the technology. Most sessions thus ended with the end of an activity, because they were tired, or because wearing the device became uncomfortable. Indeed, despite its relatively low weight, some experienced a 'fish bowl' feeling caused by the rounded glasses.

The sessions were discussed and chosen with the participants who suggested things, or had come up as potential in earlier meetings. The activities within and the relations between the sessions therefore differed per person. For some the sessions attempted capturing activities that induced as much compulsive acts possible (e.g. Sage and Dylan), whilst for others they showed rituals and hobbies (e.g. Mina, Sara, and Bill), yet others showed everyday situations that happen all the time and involved familiar others (e.g. Siôn and Nora), some were more based on different environments (e.g. Ginny, Cai, and Alan), others on the difference between strongly and almost absently compulsive activities (e.g. Elisa and Joe). Whilst most participants chose an activity in their own home, others chose to wear the device in public. Creates an unconventional appearance, wearable eye-trackers may give rise to self-conscious feelings (see Paterson and Glass 2018), although those who suggested to visit a public place seemed fine. During such sessions, I made sure what the participant could expect, based on personal experience of having piloted the method, and stayed by their side at all times.

If participants were comfortable with viewing and discussing the eye-tracking recordings, an unstructured interview was conducted in which the recordings were viewed together. Mina was one of the participants who declined as she expected watching the recordings would invoke anxieties. She regarded the recordings as too confrontational; watching herself perform compulsively without feeling an urge that justifies it was perceived as out-of-place (after Cresswell 1996). Indeed, eye-tracking provided a new kind of reflection on the participants' compulsive performances and condition more broadly with substantive implications. Watching the recordings created a new concept through which they could engage with their body, for instance, Nora 'catches herself' do things. The technology recreated their perspective from the

outside, as it can be paused and replayed, and as such, the eye-tracker performed a new 'face' of their own compulsivity (After Deleuze and Guattari 2004).

Encouraged to elaborate on visible compulsions, urges, and negotiations recalled, participants narrated their experiences of compulsions or negotiations, using the recordings as memory aid (see Figure 5). These narrations also captured ideas of what triggered them, their accomplishment, how it felt performing them, and in what ways object materiality and space formation contributed. Compulsive engagements could be grasped through their 'surfaces of affective attention' (after McCormack 2003). Descriptions of such affections were paid close attention to for capturing the ways in which performativity was invoked in language. For example, "rubbing", "sliding", or "pressing" are vastly different kinds of interactions, attending to vastly different material and sensory capacities of the human and nonhumans (Fulkerson 2014). Some mobile eye-tracking sessions registered more compulsions than others. In the cases when the eye-tacker recorded very few compulsions, the absence was discussed; for instance, watching Alan's second session ended up in him explaining what he understood as 'just-right' and what as 'wrong'.
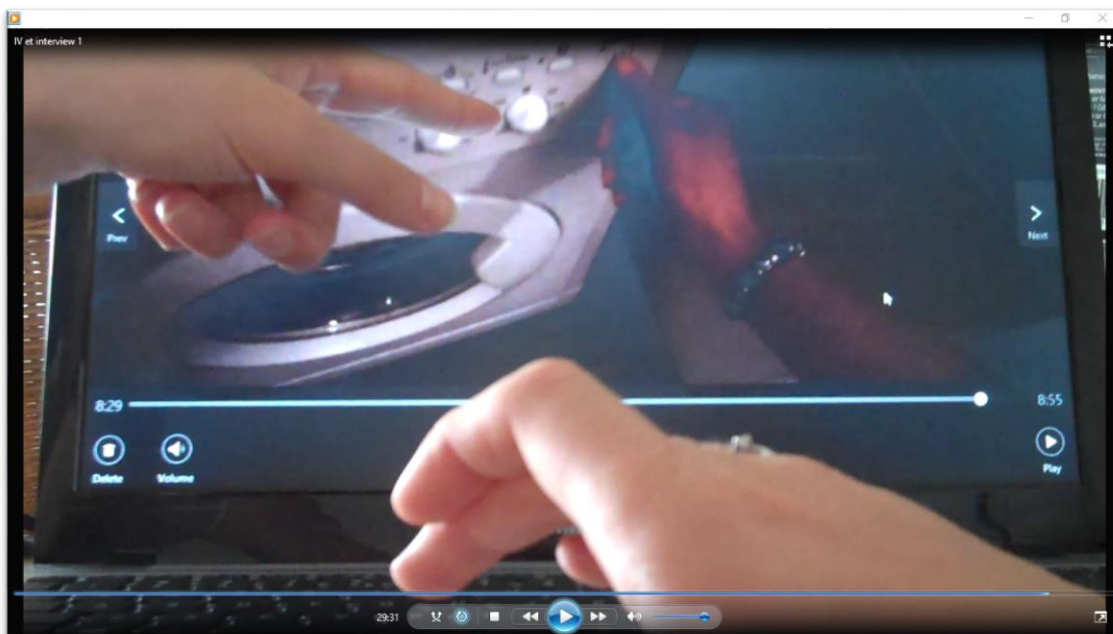
Figure 5: Discussing a compulsion with Sage. She points at the white button she rubs compulsively, and I pause the recording to allow her to elaborate.

Watching the recordings presented them with a partial outsider's perspective that invoked reflection on the compulsions; Sara notices "I really check everything all the

time, jeez!" At times, this partial outsider's perspective did make participants self-conscious, finding themselves acting "embarrassingly", such as Cai. Despite "feeling more at ease" during his eye-tracking session than during the observation, which he attributed to my absence, he did remark on a conversation between him and his house mate about me as a female. Two other male and one female participants also felt self-conscious in how they looked at me or my clothes on the eye-tracking recording. Additionally, some recordings in the private spaces of, and objects in, the home raised concerns, such as embarrassment over laundry and the potential visibility of passwords and pin codes. Watching the recordings was experienced by most participants with a mixture of curiosity, excitement, and anxiety that tended to decrease quickly after the start and increase with certain recorded situations. This anxiety about watching compulsions was commensurate with talking about them, hence generally very low. Moreover, longer and dynamic recordings tended to invoke light motion sickness in participants and me. Ginny remarks after seeing me narrowing my eyes; "yeah, you have that too, don't you. Yeah, it's all so fast!... I'm looking away for a bit". All participants were offered their recordings, and some had requested it.

In augmenting the interviews and participant observations, the mobile eye-tracking method did not capture compulsions taking place out of sight. Indeed, Sage noted that compulsions for which she brings fabric to her face do not show because she could see them: "[laughs], so every time something goes towards my face, I'm pushing it against here [points at upper lip]." These were thus reliant on participant's memory and willingness to share them. Furthermore, the alignment with spaces and the spatial relations between the body and objects is only partially visible. Nonetheless, the negotiations of compulsive tendencies that proved difficult to be captured in the participant observations did emerge better, although the relationship with the urge remained absent. This section thus demonstrated how I employed the mobile eye-tracking method with its capacity to capture subjectification processes through recording the extracorporeal conditions upon which these processes take shape. As such, the mobile eye-tracking method granted access to the nonhuman element of the different kinds of compulsive body-object-space configurations and ways in which they are negotiated. By extension, the combination of the three methods provides an empirical account that allows in-depth explorations of relations between people and places on compulsive terms.

3.3.4 Analysis

This subsection elaborates on how the data gathered with the three methods, fieldnotes, clinical diagnostics tests, and extra information have been analysed. Nonetheless, the clinical diagnostic tests were not used as data *as such*, because the connections between the answers on the test forms and the qualitative data of this study were too ambivalent to be able to pinpoint how the tests contributed. Also as they were interested in frequency and severity and not in kind, they were too reductionist for this study. In the analysis I prioritised retaining the complexity of the compulsive interactions and negotiations discussed. As such, I did not adhere to the clinical categories. Rather, I analysed their accomplishments, for instance on specific tactile, auditory, visual sensations, new orders of objects in accordance to each other and/or spaces, and feeling just-right again etc. As such, I was not necessarily interested in understanding how compulsive interactions *differ* from each other, but rather, what they *have in common*, and as such, what they produce and how are affective performances in themselves. As such, the analysis is based on an approach to coding that allowed for such exercise.

#	Code name
1	Fleshy compulsive interactions (touching, ordering checking symmetry evening up inflicting pain self-destruction)
2	Non-Fleshy compulsive interactions
3	Habit, routines, rituals and meaning
4	Reflectiveness, intentionality, voluntariness, rationality
5	Urges and itches, body and body parts
6	Processes of perception, heightened sensitivities, attention, and awareness, and sensory overload
7	Imagination and just-right feelings
8	Emotions, stress, anxiety, pressure
9	Daily life activities, particular environments, and life events
10	Presence and involvement of other people in Tourette aspects of their lives
11	Medicalisation, visuality, ab-normality and comorbidities
12	Dis-ability, capabilities of the -uncooperative- body
13	Negotiations, coping, medication and behavioural therapies, suppression, and rebound, control and distraction
14	Reflections of the research

Table 3: Analysis codes

All 15 main interviews, 30 eye-tracking conversations, and 21 eye-tracking interviews were taped, and transcribed[20] in Dutch. In addition to the fieldnotes and observations, the transcripts were uploaded in NVivo version 11 and manually coded in accordance to 14 themes (see Table 3). These broad themes gathered from the theoretical aspects had I identified in the literature review (after Ryan and Bernard 2003). I kept the list of 14 codes deliberately short to avoid reductionism of pushing data in categories (after Emerson 1995). Also, in order to make the connection across the different kinds of data, analysing them in the same way helped forging broad connections. In the analysis, the interviews were not to be interpreted as representing or signifying underlying psychosocial processes, apart from the medicalisation history, as this sets the premise for the negotiations of the compulsions captured in the study. Experiences of negotiations themselves were also not interpreted, as this study is focussed on the *how*, as it treats the *why* as a given. As such, the experiences reproduced in the interviews were treated as *de facto* constitution of subjectification processes.

The observation data had been analysed in a similar de facto way. The observed compulsive interactions had been written up from the abbreviations to a short sentence, connected to a place. In this manner, the short sentence became an *aide-memoire* rather than an exhaustive description (after Jackson 2001). For instance, one of Bill's observed compulsions was noted and translated in English as:

> **Comfy chair in the living room having his lunch**
> *glass side squeezing + index finger poke underside.*

As such, I relied on my memory to retrieve the fullness of the compulsion. The observations were thus not interpreted in a psychosocial manner, but captured the material and spatial configuration between the body, object(s), and spaces. The way in which I would mobilise such observed compulsion would depend on and acquire context from the emerging argument in the analysis.

Whilst film or video recordings as data has mostly served as a means for signification and representation (see Pink 2009), the past decade has seen an increase in using video methods for conveying affective, performative, and haptic dimensions of bodily movements (Alasuutari 1995) and encounters between humans and nonhumans (e.g. Lorimer 2010). For this study the analysis of the eye-tracking recordings then

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[20] The eye-tracking conversations and eye-tracking interviews were partially transcribed on the basis of relevance, as these conversations and interviews would often include informal chat during the sessions or seeing objects would incite new informal conversations in addition to the compulsions noticed and discussed.

contributed in two main ways; first and foremost, the video material was analysed on the appearance of the materialities and spatialities in choreography with bodily movements with which the compulsive interaction unfolds. The analysis focused on the appearance of the material circumstances in terms of colour, form, function, position according to the body, and in case of ordering compulsions the analysis focused on the position to other socio-material elements, in what broader flow of movement compulsive interaction with an object or space has become ingrained, and if it has been of interest before or after. Rather than analysing these elements comparing them across compulsions, they were analysed on their composition. Through identifying the compulsions, the second contribution was made by the creation of the performative affect of the recordings of the compulsive interactions. Following Herzog (2000), the analysis of the compulsive engagement cannot be separated from the technological conditions of the eye-tracking recording itself (also after Deleuze 1989; Ihde 2009; Ash 2013a; 2013b; 2017)

Eye tracking analysis was done with a sensitivity to the particular compulsive sensitivities of the participant. For example, Ginny had perceptive issues in the supermarket, so I needed to pay less attention to her touching objects compulsively, and more to how she encountered and negotiated being in this space. This was information obtained from the interview and observation. Also not wanting to reduce the video recording to text, the captured compulsions were described, and as such became *aide-memoires* rather than analysis text. An example of such compulsion is 'SaraET2B14':

> **Sara / Eye-tracking session 2 / 47:09 B14**
> *She vacuums around a collection of stuff without moving it, then goes back to it and puts one thing on top of another, and moves both with four fingers in a sharper aligned position to the book case next to which it lies, and next to/as part of the collection.*

I have watched most of the recordings back at 50% of the speed to not miss anything, as some compulsions only took a second, which was the case with Sage. This was done in Adobe Premiere Pro CC 2015, which also allowed 'gathering' them into a collection of compulsions captured per session.

The analysis of all data took place in Dutch. Also, quotations that were used in the analysis sections were translated to English by me, preserving the thrust and emotional affections of the statement and the personality of the participant. Where the English translations would allow it, I kept the active aspect of the statement intact, to preserve

the performative centre of participants' phrasing of experiences[21]. In catering for this, some quotations in the analysis chapter may appear slightly awkward in translation.

3.4   CHAPTER SUMMARY

In exploring the complexities and kind of compulsive interactions, that are constituted through spatial configurations of bodies, objects and spaces, this chapter elaborated on the ways in which I embarked on the empirical part of this study. In line with the literature review, this study was based on an onto-epistemology that captured the performative and affective qualities of compulsive interactions, and preserved the difference in kind. Such differences were rooted in the spatial and experiential articulations of the configurations of bodies, objects, and spaces as productive of the compulsive situation. I recruited 15 participants that provided access to a wide array of compulsions. The participative character of the study ensured the participants to determine what kind of participation was most conducive to recording compulsive engagements, as well as to ensure what they were comfortable with. The three methods employed in the study were in-depth semi-structured interviews, participant observations, and mobile eye-tracking that combined produced a geographical account of compulsive interaction, including the spatial subjectification processes with which compulsions unfold. This combination of methods allows identifying the emerging patterns and situational resemblances in the data, upon which the analysis chapters are based.

Chapters 4, 5, and 6 present the analysis of the findings produced with the employment of the methods and analysis as set out in this chapter. The data of the different methods employed is combined to explore different aspects and dimensions of compulsive interactions and negotiations to formulate the arguments that help to answer the research questions. As these arguments unfold, they aligned with the different empirical, conceptual, and theoretical aspects of the literature upon which the study is based (see Chapter 2). Interview data is presented through quotations that, in addition to the translated preservation of active and passive elements, also attempt to communicate the personality of the participant. The observation data is mainly

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[21] Dutch differs from English in what sentence elements it activates and pacifies. English tends to activate the person in a sentence, whilst in Dutch it is more likely that the person is equalised with other elements. As such, objects and spaces were more likely to linguistically 'work on' the person. This emphasis is important for study as it demonstrates how objects in particular were perceived to affect and demand something from the participants.

presented as descriptions of situations from my own perspective, and the eye-tracking recordings are presented as descriptions of the relevant elements of the unfolding situation. The latter is organised in this way because of the limitations of the format of a doctoral thesis sets to the possibilities for adding video data. Some stills are added to the appendices to demonstrate the kind and intricacies of compulsions ´captured´, as well as the richness of this data.

Chapter 4 establishes the phenomenon of compulsive interactions by exploring its emergence in between and alongside other-than-compulsive aspects of life, as well as the experiential processes involved in becoming compulsive. Chapter 5 takes this forward by exploring the ways in which bodies and objects become configured in compulsive interactions and their negotiations. Chapter 6 then explores the ways in which these configurations are spatially organised, and how their different durations produce an embodied 'ecology' which reflects the effects of compulsive interactions. Chapters 4 and 5 mainly formulates the premise upon which Research Question 1[22] and 2[23] can be answered, and have implications for such formulations for Research Question 3[24], Chapter 6 provides the grounds for answers to Research Question 3 in particular, whilst also preparing for answering Research Questions 1 and 2. The answers to all research questions are developed in Chapter 7: Conclusions.

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[22] Research question 1: How are compulsive interactions, performed by people with a Tourette syndrome diagnosis, affected by the bodily environment?

[23] Research question 2: How do people with a Tourette syndrome diagnosis negotiate performing compulsive interactions?

[24] Research question 3: What can be learned about the relations between people and place from compulsive interactions performed by people with a Tourette syndrome diagnosis with and the negotiation of affective environments?

CHAPTER 4 ARTICULATIONS OF COMPULSIVITY

This doctoral study aims to uncover how compulsive interactions are affected by the bodily environment of people with a Tourette syndrome diagnosis, and how they figure in negating these interactions. In turn, the study explores in what ways compulsive interactions might provide new insights in person-place relations. In formulating an answer to the research questions the literature provided a number of suggestions. The literature reviewed in Chapter 2 demonstrate that, first and foremost, the understanding of compulsive interactions is limited. Nonetheless, the medical and clinical literature do suggest that they take place everywhere, but seem to increase in more familiar spaces, seem to be related with the presence of other people, and activities undertaken. Compulsions also seem to be sustained by three sensory processes; urges, not-just-right feelings, and heightened sensitivity. The literature on similar medicalised performances as compulsions builds on this by suggesting that particular aspects of objects and spaces invoke them and can be used to negotiate them. Also, this scholarship emphasized the importance of experience and felt knowledges in understanding the compulsive relations between the body and its constituencies. Moreover, the kind of, and possibilities for, compulsive engagement seem to be related to perceptive processes and the flesh, as these produce a particular disposition of bodily, objects, and space capacities to accommodate them.

Literature reviewed in Chapter 2 also suggests that compulsive interactions emerge from the encounter of the body with the extracorporeal, and from the subjectification processes that are co-constituted by the human and the nonhuman. Tracing the influence of bodily environments, suggested that compulsions needed to be studied on their performativity and affectivity, thereby granting the environment co-constitutive agency. Such suggestion challenges the location of compulsivity entirely with the human, as contended in the medical and clinical sciences. Rather, environments should not be understood to becoming involved in terms of the processes and presences in them, but by their actively productive capacities. Compulsive performance seems to share conceptual elements with practices and habits, which gathers them as constituted with distributed intentionality. These insights informed the methodology upon which the study is based. In capturing the performative and affective experiential

dimensions of compulsive interactions and their negotiations, this study adopted an onto-epistemology that was sensitive to the nonrelational, perception, and compulsive histories. It did so by employing in-depth semi-structured interviews, participant observations, and mobile eye-tracking. The participative character of the study allowed me to work closely with 15 participants and provided access to a wide array of compulsions, whilst safeguarding the wellbeing of those involved.

This chapter presents an analysis of the data to understand how the phenomenon of compulsive interaction articulates in relation to the performance of other-than-compulsive life. It does so to establish the conditions upon which the spatiality of such engagement takes place. As such, the chapter identifies how situations become compulsive, and what effects this has on the bodily disposition in relations to objects and spaces. The chapter then produces spatial subjectification processes to unearth how participants relate to the sensations that underpin compulsive urges and interactions, and how negotiations of these sensations map onto them. Whilst the medicalisation of the performances do not articulate in the spatial configurations of individual compulsions, Section 4.1 explores how this does so in subjectification processes and what the implications could entail. This analysis provides a context that situates the language the participants have used and what effects this has had on their conceptualisation of their involvement in compulsive interactions. Section 4.2 traces compulsivity in the way it expresses in or outside human awareness, with an experiential distinctiveness, and how it disrupts particular experiential, bodily, and spatial aspects of other-than-compulsive life.

4.1   MEDICALISATION AND DIAGNOSTIC REIFICATION

This section engages critically with the medicalisation of compulsive interactions and explores the articulation of their spatiality. It does so by tracing compulsive interactions in the ways in which participants express their experiences in technical clinical language and the ways in which they become reified through the Tourette's diagnosis. As argued in the Methodology chapter, medical histories resonate in the subjectification processes through which I have studied compulsive interactions. Therefore, the vocabulary underpinning the retrospective accounts on which the analysis is partly based, reflects this medical rendition of participants' bodily engagements. The section thus explores in what ways the Tourette's diagnosis became a mediator of compulsive urges and interactions. This was not the case for all participants, such as Ginny who

was more lyrical than most other participants (see also Bliss 1980). Nonetheless, as I go on to discuss here, the experiential understanding of compulsive urges and interactions often proved difficult to access outside the whole medicalised Tourette syndrome condition. Indeed, the vast majority of the participants had difficulties separating the experience of their compulsive interactions from those of other aspects of the medicalised Tourette's condition. Whilst the technical clinical and experiential vocabularies differ in constitution and purpose, as well as remit and scope in capturing compulsivity, the participants often merged them in the expression of their experiences.

It was this 'merged' language that became demonstrative of the friction between the participants' subjectification processes and the rigid medical subjectivity that had been imposed on them with having become diagnosable, and established through treatment on the basis of the diagnosis. For Lowri this was difficult as she struggled to express all her experiences through the clinical language, as she felt ashamed for not "knowing" that a particular movement she used to do "was a tic". She experienced the clinical vocabulary to be so restrictive that it even made her question if seeking help through being diagnosed had been a right decision; she explains "So yeah… I don't know if was relieved at that point". For some participants, the clinical vocabulary had become the only vocabulary through which they expressed, exemplified by Joe; "I had it [Tourette's] my entire life of course, but officially I know it for only four years".

The accounts from Lowri and Joe cannot be discarded as pure linguistic matters. Rather, as Davidson and Henderson (2010, pp. 465 citing McLaughlin 2005) argue; "the 'production of diagnostic criteria' has the power to transform 'expressions' of individual personality into 'symptoms' of pathology". In other words, being diagnosed can alter one's understanding of one's own bodily performativity. This transformative power of the clinical vocabulary can then render acts problematic whilst they had not caused any suffering before the diagnosis. For instance, Rhys understanding of his body changed from always having a light cold because he sniffed to having a brain problem as it became rendered as a vocal tic[25]. In more general terms, as this clinical rendition[26] of the body is required to gain access to treatment, for those with the diagnosis, compulsive engagement can be as much part of their daily lived reality as tics are. However, compulsivity is not a diagnostic criterion, but the interactions that come forth from it are understood to be part of TS. Therefore, being diagnosed with TS

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[25] The Tourette's diagnosis is the following: "have two or more motor tics (…) *and* at least one vocal tic" (DSM-V, emphasis original)
[26] In the Methodology I argued that such renditions are produced in laboratory conditions with static bodies.

in and of itself prioritises the experience of particular bodily movements over others. As such, the diagnosis and the clinical vocabulary it purports become *affective presences* in themselves through which bodily movements became known and expressed*.*

The research participants also inflected the diagnosis on their body by measuring their compulsive engagements, urges, and other inexplicable sensations against it. In telling me about his stomach upsetting Joe argues this is due to tensions "because of my Tourette's". As such, in the lack of a rational, purposive, or meaningful explanation, the diagnosis itself became a self-explanatory entity, or was invoked as a reason for compulsivity. Additionally, what was understood to 'belong' to Tourette's, had been effectively separated from other bodily performances, as if performed through a different subjectivity. Discussing Alan's sensitivity to clothes, he sighs and says "…if I would be able to choose what to lose of the Tourette's, I would choose that." The diagnosis also became mobilised by participants to give character to bodily movements and engagements. Dylan watching an eye-tracking recording states: "it all doesn't look very Touretty, I think", but he cannot quite put his finger on what it is that makes movements particularly 'Touretty'. In line with Dylan, Tomos invokes his compulsive sensibilities as entirely self-contained biological process when he explains his daily struggle with: "then Tourette's really takes power over me I'm afraid" (see also Wilensky 1999). The Tourette's diagnosis seemed to have become an amalgamation of a broader experiential set of bodily movements and urges for almost all participants. The analysis thus necessarily negotiates the compulsive elements in participants' vocalisations largely through the diagnosis and the clinical rendition of their body. As a consequence, invocations of compulsivity through Tourette's might also include tics and acts that do not instate an interaction with surroundings materiality.

Some participants struggled with the failure of the clinical striation of the diagnosis to capture their bodily urges and acts. For Mina, being diagnosed became a very difficult process as she felt that it did not satisfy her requirement for appropriate support at all. She recalls her frustrations in filling in the diagnostic tests at the specialist department of a hospital. The urges to do compulsive acts that are self-damaging were not enquired after, whilst her painful and injuring chewing compulsions had been her main reason for becoming diagnosed. It led her to think that compulsive self-damaging was a rare occurrence, and as a result of not being asked for it, she refrained from "demonstrating it [the chewing compulsion], or telling them [clinical professionals] about it". For Mina, this study's focus on compulsive interactions did allow her to discuss these experiences with a non-medical vocabulary that fitted their communication.

Dylan did not want to find a non-clinical language to convey his experiences. He only expressed his urges and compulsions in highly clinical and technical scientific language. During our meetings he constantly questioned and endeavoured to categorise all his movements and sensations on their accuracy, and purpose; even the way he reached for the tap during an eye-tracking session was clinically assessed in detail. Having initially been content with the capacity of the TS diagnosis to explain his experiences, later on, he had started to experience urges and compulsions that he could not relate to the diagnosis. As this was a distinct lack of the diagnosis and identified a gap in the scientific literature he found he needed to challenge the diagnosis to make these experiences fit:

> *"Ehm… I actually did make up a new category that makes me think like… yeah… these are indeed motor tics, only it doesn't consist of the movements that we know of, and I miss a category with a normal description which I named 'passive tics[27]'*
>
> Ok
>
> *Passive motor tics… Can something like that exist? Yes of course it can exist, I mean, I am a patient, I feel that, that is what it is."*

As such, Dylan required the clinical vocabulary to explain all his experiences, but it did not, and therefore had to be expanded, otherwise he felt unable to acknowledge and discuss his bodily experiences. Indeed, commensurate with the clinical vocabulary, he discussed his compulsive interactions and negotiations almost exclusively as biologically produced acts, struggled to recall differences in compulsion kind and bodily environment, and often sought to provide health-related reasons for compulsivity.

Mina elaborated on similar experiences with the TS diagnosis not covering her experiences in a satisfactory way. Her medical education and former job as insurance doctor, and commensurate familiarity with clinical vocabularies and diagnostics had led her to rethink compulsivity through challenging the TS diagnosis. Getting more and more frustrated with how her drawing of the lion emerging on the paper in front of her during the second eye-tracking session, she speaks slowly and deliberately relating her compulsions to psychosis and addiction:

> *"Psychotic disorders are so organic… I thought it really wouldn't surprise me; it's rather psychotic, I think, those compulsive complications (…) [It's] something that drives you…. I mean…. It's*

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[27] Passive tics refer to Dylan's experience of not moving his body compulsively when feeling urges, but rendering his body still, and effectively suppressing them.

outside your control… if you have a psychosis… and without having any say over it, is, you have compulsive complications… and that it's also something that you almost can't… eh… then addiction… is also

Yes

It's also something that just gets worse all the time.. so it's something… I would say, that it's outside yourself… and controls you, and that's also in psy-, maybe that's why I keep thinking it…. I think it's really just a kind of psychosis, maybe they should see it more like that."

Later on, she remarks her struggle with the difference between the clinical language and her everyday experience by calling the comparison "unscientific". Nonetheless, by feeling the need to question the diagnoses, she struggles to commit to the prescribed treatment that stems from the Tourette's diagnosis. In turn, this refrains her from making sense of her experiences in a, for her, satisfactory way. Also, such strong focus on diagnoses omits any necessity of considering the situation of compulsions.

Experiences not 'matching' diagnoses is a shared element in the medical histories of the research participants. Before being diagnosed with Tourette syndrome, many participants required measuring and expressing their experiences of their urge sensations and bodily performativity through other clinical vocabularies and diagnoses. Nora's struggle to be diagnosed in "the way [she] saw it" took a whopping 25 years of having been misdiagnosed with manic depression, ADHD and others. Eventually, she managed to obtain a reference letter to a neurologist who finally aligned her experiences with the "correct" diagnosis:

> *"And within five minutes, he immediately said 'you're a typical Touretter'… yeah, not because of my tics, but because of my expressions [vocal] and, and, and my way of being really, yes"*

As such, for a long time, her experiences seemed not to fit with her diagnosis. Through being diagnosed later in life, she had not received suitable treatment and had therefore been forced to develop negotiations of her urges and compulsions in ways that would render them harmless to her and invisible to others (see Section 4.2.1 for elaborations).

This subsection demonstrated the affective presence of the medicalisation of the bodily performances in the lives of people with compulsive tendencies. Not only does the diagnosis and clinical vocabulary resound in the ways the participants express experiences, it alters their very understanding of their body and its compulsions. This subsection and the chapters to follow demonstrate how the adoption of such

vocabulary sees the diagnosis reified in experience. As a consequence of the lack of contextual sensitivity in this vocabulary, the situation of compulsive performativity articulates far less in the retrospective accounts of participants who adhere more to the clinical vocabulary in expressing their experiences. The remainder of the analysis also demonstrates that in retrospective accounts the medicalisation of the compulsive interactions can be argued to articulate in the subjectification processes at the expense of a conception of spatiality. With the conduct of methods that emphasise the spatial expression of compulsive interactions and their negotiations and that could be narrated, this articulation changed.

The subsection also demonstrates that studying medicalised performances in geography – e.g. disability and health geography – requires critical engagement with the practice and conceptualisation of diagnostics before claims can be made about potential underpinnings of spatial processes. Indeed, translations from experiences to invocation of complex medical constructs such as compulsivity and diagnoses is riddled with ambiguity, reductions and inflations. Indeed, this study's deconstruction of the medicalisation and diagnostisation of compulsive interactions requires reflecting on the ways in which geographers with an interest in performances similar to compulsivity have spatialized them. The next section 'reclaims' it from its medicalisation and traces its expression as related to awareness, as distinctly compulsive and forceful articulations in daily life. It does so to explore the particular conditions upon which subjectification processes emerge, that, in turn, underpin the particular situation with which particular compulsions unfold.

4.2   COMPULSIVE EXPRESSIONS

The previous chapter demonstrated that compulsivity has been articulated through diagnostics, which had the effect that compulsions were mainly rendered through the diagnosis or tics in experiential articulations of the participants. This section 'reclaims' it from its medicalization, and reconceptualises it on its performative terms. As such, this subsection traces compulsivity in individual interactions as human performance. It does so to locate compulsive expressions as different from and taking place rupturing other-than-compulsive life. This also helps to identify conditions upon which negotiations can take place. Subsection 4.2.1 traces compulsive interactions in human awareness, Subsection 4.2.2 elaborates on the distinctiveness of compulsive expression in

knowledge and feelings. Subsection 4.2.3 explores the experiential and spatial ways in which compulsive interactions disrupts other-than-compulsive life.

4.2.1   (Un)awareness

According to the conceptualisation of the compulsive condition in the clinical literature, identifying the interactions would be relatively straightforward for those performing them. Whilst this is the case for most compulsions captured in this study, the subsection demonstrates that not all compulsions happen in full awareness, do not all produce a memory, and cannot always be distinguished from other-than-compulsive interactions. It elaborates on the effects of this, and suggests that compulsive engagement requires a new nuance in the clinical literature. The subsection also demonstrates the relation with habit and its geographies, and has consequences for compulsive subjectification processes. As such, they shape conditions upon which compulsions may be conceived to have spatial connotations. Clearly, for all participants compulsivity was a distinctly demarcated aspect of their lives, and the comfort and certainty with which they spoke of it permeated this study. At the beginning of the recording of her first eye-tracking session Elisa (35) is fairly confident that she is aware of all her compulsive interactions when we watch the footage. She would drive us to her home, which was her idea because:

> *"That's when you see it most obviously*
>
> Yes, you are aware of this
>
> *Yes, yes, yes*
>
> Many people are less aware of them
>
> *Oh, I am aware of my compulsivity, I would eh… I would rather not have that, it would be easier if you wouldn't have to do it"*

Nonetheless, after further discussion and towards the end of the recording, Elisa reconsiders her certainty of being aware of her compulsive acts: "well, I think I wouldn't be able to recall everything, but ehm... a lot of things I actually would, yeah". Whilst the compulsive condition *as such* thus might be remarkably memorable; it seems to be less straightforward for the unfolding of individual compulsive interactions, despite their conceptualisation as being preceded by urges and requiring the conscious decision (see also Section 4.1). Sage struggles with my questions on what kind of compulsive interactions she performs:

> *"Like 'ah, I never do that!', and then you start thinking and then you're like 'ehhh, yeahhh'. That will start when [researcher] have left later on, and that I'm doing something and then think 'ooh, I actually do!'"*

Sage's account also suggests that some earlier compulsive interactions only surface when residing in the same bodily situation and less outside these situations. Indeed, the examples participants provided recalling them were often performed in the room the interview took place, or had had memorisable effects, such as humiliation, awkwardness or pain. This supports my concerns about the viability of the laboratory conditions and immobilised body in clinical methods for studying compulsive interactions (see Section 3.2.3). The eye-tracking method that confronted them with the actualisation unfolding of the interactions elsewhere as well demonstrated that they could not always recall all of their compulsive acts. When discussing the recordings of her first eye-tracking session, Sage thinks "it's also funny that I can't, that you're not conscious of it. Talking about it is quite funny." Much like Elisa, Sage had expected to recognise and recall all her compulsive interactions in the recording. Nonetheless, for Elisa, Sage and other participants, watching the eye-tracking recordings more often than not superseded the amount of compulsive interactions many had expected. This already implies that a situational approach to capturing compulsive interactions is already confirmed to be successful.

In contrast to Elisa and Sage, Nora was one of the few participants who said to recall no compulsive interactions recorded during eye-tracking at all. Watching the recordings of her eye-tracking sessions, she responded to her movements with slight apprehension:

> *"When you see this, you get all restless because of yourself. Then you think 'do you always do that, making these movements?"*

Not entirely sure what to expect of her bodily appearance and compulsive interactions performed, she seemed as unexpecting as I was. Watching the recording then almost turned into a game of spotting compulsive interactions, which seemed to reduce her anxieties as to what the recording would 'reveal'. Some compulsive interactions showed on the recordings with her husband elsewhere in the living room. He could overhear us discussing the appearance of her body on the recordings, when I think I see her do an act:

> "Was that something?
>
> *Well, I was looking at that as well… I think I do this *glides her index and middle finger along each other**

Yeah, for a moment

Astonished But I do that the whole time... you [husband] have said
that before, that I do that constantly, but I don't know, gliding those
fingers along each other

<u>Husband</u>: Yes, the whole time, yes."

During the meeting to get to know each other and later on during the interview, she had
proclaimed being a "secretive ticcer", explaining that she is very sensitive to her bodily
appearance, and that she attempted concealing movements that could raise questions
from others. As such, she strongly renders the expression of her compulsivity in terms
of visibility from the outset, and negotiates doing them accordingly. Nonetheless, she
knew that others have noticed her doing tics and compulsions, and that these had
become part of the body others knew and recognised her by:

"I just think like 'yes, I'm like that'… it does surprise me eh... it
surprises me because I do the same things all the time."

The compulsive interactions that escaped Nora's immediate awareness thus seem to
be those she did on a (very) regular basis, and which in other moments are more
actively engaged with. This demonstrates that awareness of compulsive interactions or
the lack thereof cannot solely be situated as a problem of memory, as Nora is highly
sensitive to particular compulsive acts, but seems largely insensitive to others. Also
Sage speaks of the shock of becoming aware of compulsive interactions not previously
registered:

"Lately I've been more aware also, because then I'm practicing
Exposure [and response prevention therapy]… and then... eh… I am
focussing so strongly on suppressing the exclusively bodily tics that
I… but then in the meantime, I'm doing something else because it
helps distracting me.

Yes yes

I do that for instance whilst I'm tidying the kitchen or something, and
then I'm suddenly aware of all the things I… touch

Just to touch?

Because of the touching

Not because of//

//For real! You know, what I told you the other day – sorry – what I
told you the other day, being focussed on particular… shapes ehm…
but actually also when I clear the dish washer; everything I put in the

> *cupboards I touch once more… and that's how I notice more of them... because when you're suppressing, you suddenly realise that that is also a tic! And… I'm more aware now how irri- yeah, I'm more conscious of it, how, yeah how… much… I'm doing it… that it's actually continual…"*

A lack of awareness might seem to juxtapose their sensitivity of their body's compulsive movements. Nonetheless, in the clinical Premonitory Urge for Tics Scale (PUTS) test Sage and other participants suggest that some compulsive interactions are performed without active involvement of the increasing urge sensations and deliberate timing of act performances. In other words, the compulsions that escape awareness seem to be performed without relating to the ongoing other-than-compulsive dimensions of life. Whilst the likely absence of the urge reflects clinical research findings (Banaschewski et al. 2003; Verdellen 2007), this study brings an additional nuance to these findings as demonstrated with the following findings.

In clinical studies, increasing 'complexity' of tics is correlated with increased likelihood of being preceded by urges (Eapen and Robertson 2015); compulsive interactions are always already categorised as complex[28]. Nonetheless, rubbing fingers along each other, or briefly touching objects 'once more' can be regarded as less 'complex', or at least less elaborate than aligning a group of four objects into a system that is just-right from multiple angles. The latter act is a recurring one for Ginny, which is preceded by an urge, which she is aware of during the performance and recalled during the interview prior to the eye-tracking sessions. A less elaborate compulsive act slipping into a participant's awareness also occurred during a research meeting with Dylan, when he suddenly becomes aware of performing one:

> *"Some things thus go completely unnoticed (…) And the longer you actually... talk about it, the more severe that tic comes back at you... ehm... now I'm stroking the desk with the back of my hand! (…) I do lots of movements that I'm not even registering."*

Although elsewhere in the interview and during other meetings he expresses more concern about this apparent lack of awareness, he raises a point more poignantly worded by Nora. Like Dylan, Nora is very concerned about the visibility of her compulsive expressions and negotiates them accordingly, but when interactions have a compulsive appearance but are, in fact, not compulsive, she is less concerned:

---

[28] Complexity of Tourette symptoms is generally identified as the involvement of multiple muscle groups. 'Complex motor tics' serve as antonyms to 'simple motor tics' such as blinking and eye-rolling.

"Oh! That was one, wasn't it?

laughing Yes! But one push too many!

Because it should have been two?

Well, I had three. And that's not right

Ok, and did you do something to counter it [the effect]?

*No, but I see this now, I think 'that's wrong, that's three *laughs*
see?! Count them!"*

No, indeed, and in that moment you didn't think 'oh, it's one too
many', you think?

*I don't know, no I don't know… and sometimes I just don't even want
to give in to it, and then I think 'no, this is fine, there you go – done',
you know?*

Yes ok, but then you do have to know in advance like 'oh I'll feel that
proclivity to do it, or currently have that proclivity and I stop'?

Yes, but that's automatism, what I did there"

Whilst at first instance she recognises the movement of three pushes as compulsive, discussing it makes her recognise it as not compulsive. This suggests that compulsivity differs from automatism, and that the third push would have been the latter. The compulsive touches thus seemed to be preceded by a sensation and perhaps even deliberation, whilst the last push was not. Indeed, despite the same engagement with the same object, noticing that it cannot be compulsive because the pushing act is 'wrong' produces entirely different embodiments (after Fleissner 2007). This may be indicative of a separation between compulsive and other-than-compulsive subjectivities that might be experienced in similar ways whilst engagements are unfolding, but which serve very different purposes (see Leder 1990). Also, categorising the third touch as 'automatism' at the end of the discussion then eradicates any concern for *appearing* compulsive. As such, the possibility of compulsivity being understood or recalled as automatism and emergent with a non-compulsive subjectivity could be considered a form of negotiation of compulsive tendencies. They might *consider* not being aware of one's compulsive engagement as automatism, which may take away concerns about visibility of compulsivity, and may therefore also erase the need for negotiation through bodily performativity.

Invoking automatism in this way may also allude to habit. With curious amazement, Bill (50) watches himself do compulsive interactions without remembering doing them

during the recording: "Well, I do see quite a lot, aye (smiles)". He continues watching in silence, often visibly amused. In a lull between interactions on the recording I ask him after it:

> *"Yes, I do see quite a few things, what I just said, more like... than I eh... normally…*
>
> …Am conscious off
>
> *Yes very conscious of. You do it for such a long time, and what you said just now on the parking lot, lots of things happen in a flow, and now you really see it*
>
> Yes, yes
>
> *So that eh… yeah…*
>
> So a flow with little bumps?
>
> *Yes! Yeah!"*

For Bill it seems that the compulsive interactions that his comments pertain to, such as ordering an assemblage of a cutting board, cutlery and glasses according to each other, have become part of the larger practice of clearing the dishwasher. The ordering exercises were not experienced to break up his other-than-compulsive interactions when they unfolded as the recording made it seem.

> *"[the compulsions] slipped in, I think eh… that if I don't do it that I, that I'd notice it… I think, yeah*
>
> So these aren't things you necessarily sense you have to do?
>
> *No, I really do have to do them*
>
> Yeah, so you can't just think 'oh, then I won't do them'?
>
> *No, I do really check, I saw myself properly watching like 'oh, turn that around, get the loop out'*
>
> (…)
>
> But it's not like you can do it in advance if you suspect you won't find it correct… that you can do it in anticipation if you will?
>
> *If I do it in advance… pfoo… no, that, that… no I don't think so, no."*

Indeed, whilst increasing complexity – or elaborateness – of compulsive interactions can imply greater disruption (see Section 4.2.2), Bill's account suggests that some compulsions dissolve into or feel like automatic other-than-compulsive acts, or what

Dylan describes as "normal" "compulsifying". As such, compulsions might be more prone to take place outside one's awareness when they have become more habitual through being performed in similar situations (see Ravaisson 2009; Dewsbury and Bissell 2014). As also Sage illustrates

> *"I think that generally speaking, it's so ingrained in my daily life that it's not annoying. (…) When you start noticing it more, then it becomes annoying all of a sudden."*

Hence, both Bill's and Sage's accounts suggest that compulsivity can go unnoticed as the compulsive interactions can become part of daily life in an other-than-compulsive way. This demonstrates that both automatic interactions or habits and compulsive interactions may take place outside awareness and outside the intentional subject (Bissell 2011), and that compulsions can become habitual. Nonetheless, compulsions should not be conceptualised *as* habits, as I suggested in Section 2.3.3. and unlike habits, compulsions do not instate a devitalisation of sense (Malabou 2009). Indeed, as Karp and Hallett (1996) argue, some people with a Tourette syndrome diagnosis remain aware of all bodily contact with the extracorporeal. For instance, Van Bloss (2006) states to never stop feeling the chair against his back, and this sensitivity is shared by some participants in this study. Remaining aware of bodily contact can be conceptualised as a 'compulsive corporeal field' that might always be latently present, which therefore reduces or absorbs the shock compulsivity can invoke when performed alongside non-compulsive acts. Sage illustrates this during one of our interviews on the basis of the eye-tracking recordings. I had just asked her if it was just me seeing a certain very short and very easy to miss 'lag' between her picking up an object and putting it in its new place. Noticing this as well, she considers this out loud:

> *"I have that very often that when I touch something I feel I'm not treating it in a special way, but that I hold on to it just that little longer, or put just that little extra pressure on it, but that happens in such a fraction of a second that I often don't... at least, maybe if you were to ask me in the moment. Then I'd know, but looking back at it now, then I think…*
>
> Yeah, so then it's not necessarily a choice, an active choice to do it?
>
> *No, more like [inaudible], more like 'I am laying my hand on the table now and I feel now… very much the sensation of the table beneath my… tip of my index finger' because with that one I feel all those pointed edges. So I sense that very explicitly, so I can… eh... I can experience that in the moment I just touch it briefly, so it's most definitely a tic because I feel that sensation, it is just preceded by a*

less eh… elaborate performance or something, you get what I mean?"

Sage thus argues that the sensations of compulsive interactions cannot be ignored, but the interaction itself might only be realised upon unfolding. Such a lack of conscious involvement can suggest that these kinds of compulsive interactions lack purpose beyond the compulsive requirement of a sensation. Therefore, these interactions can escape awareness or fail to produce a memory precisely because of the strong separation from other-than-compulsive acts. The lack of contribution to the intended task at hand might be explain how compulsive interactions could be performed during non-compulsive acts. As they do not require special attention and thus do not halt the other-than-compulsive 'flow'. Therefore, these accounts suggest that immediate perception of the performativity of the body as underpinned by the 'corporeal foci' can fail to capture compulsive interactions (after Leder 1990). Only when awareness is shifted from the intended practice, such as unloading the dishwasher, to the actualising body's engagements, compulsivity could be traced.

Compulsive interactions thus demonstrate that perception of bodily performance upon which geographical scholarship on intended practices are based (e.g. Nash 2000; Valentine 2002; McCormack 2002; 2005; Saldanha 2005; Wylie 2005; Roe 2006; Spinney 2006; Laurier et al. 2008; Anderson 2012) may not be sensitive to the *actualised* bodily interactions with the nonhuman, despite claiming the equal ontological involvement of the nonhuman. In addition to delivering a critique to practice theory more broadly (see Lefebvre 1991; Mol 2002; Simonsen 2005; Schatzki 2010), it means that in taking place outside awareness, and in failing to produce a memory, compulsive interactions broaden our understanding of what person-place relations as unfolding with corporeal interaction entails.

This subsection set out to explore the identification of compulsivity in the flow of everyday life. Compulsivity might escape awareness in the moment, but that does not mean that compulsive interactions are not performed. Rather, it suggests a fluid relation with other-than-compulsive interactions in the sense that they can become part of and happen alongside each other. Some compulsions fail to produce a memory because they are not preceded by urges, but seem to have become habitual. Which suggests that complexity is not the only indicator of urge presence (Eapen and Robertson 2015). This provides new insight into how intended activities are laced with compulsive interactions (see Silva et al. 1995; O'Connor et al. 2003). Indeed, other-than-compulsive life seems to create the situations upon which compulsive

engagement can take place on a very momentary basis, whether they are performed in full awareness or escape it. This, in turn, has spatial connotations. Indeed, it may be possible to consider that in compulsive situations that remain unregistered, the body is 'hijacked' in its interactions with objects and spaces. Although not exhaustive, this renewed understanding of how people with compulsive tendencies are aware of their compulsions also demonstrates that the combination of methods captures crucial nuances in these performances, and allows distinguishing in kind. Nonetheless, when performed in full awareness, compulsivity is being recognised as distinct experience. The next subsection explores the particular compulsive quality to these interactions that allowed the participants to distinguish between compulsive and non-compulsive acts.

4.2.2 Knowing / Feeling compulsivity

In understanding in what ways compulsive interactions are affected by the bodily environment, and how this is an articulation of difference in kind, compulsivity needs to be explored beyond conceptual expressions. Rather, it should be engaged with on its distinctiveness and how that informs processes of subjectification, and on the basis of that, can inform configurations between bodies, objects, and spaces. Therefore, this subsection explores compulsivity on the quality of its experience when participants were aware of them, and in particular on what makes compulsivity recognisable as such. Most participants comfortably discussed the experiential characteristics of compulsivity in general terms, and were all adamant to allude to the feeling of the urge as distinctive. Additionally, they added that these experiences are unknowable to people without diagnosis. Indeed, for most participants could pinpoint most compulsive interactions on the eye-tracking recordings without a problem. Ginny explained that she recognises compulsivity in the added 'feeling' when she sees something. It is in this addition that the compelling element expresses:

> *"For me it often starts… it… that I see something and that evokes a feeling. And then I want to do something with that feeling if it's a bad feeling, you want to order things or something, for instance. And if it's a good feeling, then you want to pick it up or do something with it, pinching it or something. That is, that's the compulsiveness, that it evokes a feeling."*

Sage builds on the addition of this 'feeling' that can be 'bad' or 'good' to sensing a particular object as retrieving a quality, by describing it in terms of 'intrigue' and 'strong

appeal' outside functionality or aesthetics. A few months before the interview, she and her partner had bought a fryer, and elements of this object became involved in compulsive interactions in particular situations. Especially its capacity to become very hot incited urges:

> "I really get… batshit crazy because of that thing because I'm so incredibly intrigued by that hot frying fat
>
> Uhuh
>
> I shall and must touch it. I _must_! Yeah… you know it's superhot
>
> Yes, painful and everything
>
> But I shall and must know, and I can withstand it, but just being in the kitchen where we have the fryer is absolutely awful, and I think I rarely have had _anything_ that has _such_ strong appeal to me, and that really scares me because I'm afraid I might give in to it at some point."

As such, Ginny, Sage and others alluded to the experience of compulsivity as an intensity articulating in everyday non-compulsive encounters and – potential – interactions. Sage's elaboration explains that it is not necessarily the fryer, or frying fat itself, but her touching it that is intriguing. Indeed, this description resonates with most other participants, and reflects experiential accounts of Bliss (1980), Kane (1994), and Van Bloss (2006). This intensity is distinctly different from how compulsivity is conceptualised within the clinical framework of Obsessive Compulsive Disorder (OCD). With OCD, its emergence connotes a fear for a particular event, which striates it only in the direction of an obsession. Sage asserted the difference it makes in her experience:

> "I do have compulsions [vis-à-vis obsessions], but these are more like compulsive acts, so more like, what you do with your research, with objects and all, but it's not driven by fear anymore
>
> No
>
> It really has to do with…. The bodily sensation, like 'hey, I like touching that', or 'I have to touch that',
>
> Yes
>
> And not anymore like 'if I don't do that, then…'"

Compulsivity as response to fear, rather than related to urges, only corresponds with objects involved as coincidence or providing initiations of acts, and refrain from understanding objects on their own material terms (after Harrison 2007; Ash and

Simpson 2016). Discussing compulsions on these terms would render them *acts* instead of *interactions*. Compulsivity as related to urges then seems to incite a deepening of these mundane experiences with a strong affective resonance with the extracorporeal element becomes involved in the interaction. Rather than a purely negative experience, Sage experiences the urge as unqualified emotionality that does not extend beyond that affective resonance[29]. Unlike in contamination compulsions analysed by Segrott and Doel (2004), this intensity does not precipitate into other-than-compulsive life occurring before, alongside and after it apart from its implications, such as potential pain from acting on the urge. As this intensity does not extend beyond the affective resonance between the human and nonhuman involved, knowing compulsivity and recalling it as sensation as such, and recognising the feeling after the moment of unfolding was more challenging. During the interview Ginny struggled with recalling the actualised feeling of becoming compulsive:

> *"I can't analyse it properly now, but in the moment it's, you wouldn't notice, then, then you just do it… kind of… when I think about it now, that's how it kind of happens, that's how it feels."*

For her and others, the feeling of compulsivity as it unfolds is very distinctive but also fades very quickly (also see Bliss 1980). Even the 'thrust' of being compelled into acting out an urge seems difficult to recall, as illustrated by Dylan when I ask him to explore how touching his nose compulsively feels different from other-than-compulsively: "I really just can't distinguish between… I can't give a straight answer to that". As such, urge-driven compulsive interactions remain largely unrelational (see Harrison 2007; Anderson 2014) and constitute a sensory category on their own in. As such, compulsive interactions could be conceived to "resists being drawn into and subsumed by relation" (Dillon 2000, pp. 5, cited in Harrison 2007). Theoretically, this makes negotiating compulsions incredibly difficult. Even when recalling the "manifestation" of an entirely new kind of elaborate compulsion, Alan cannot quite put his finger on it when describing the situation:

> *"It [unknown object] is in the shed, this height, that's placed on a table or something, and at some point I'm having a drink and do this… touching all those small characters… a few times back and forth (…) So at one point I think 'why am I doing that?' and the next day I did it again, so I've been doing that for a week now or something."*

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[29] I elaborate on this distinction in conference paper "Writing Compulsive Corporeality: Postphenomenological methodology and Tourette syndrome", Session *Post-phenomenological Geographies: methods and styles of researching and writing the human (1): Subjects*, RGS with IBG Annual International Conference 2016, London

This description purports an interaction in which Alan almost seems to 'take part', as if he is made to and does not protest, constituting the almost unsurmountable separation and lack of communication between compulsive and other-than-compulsive subjectification processes. The 'de facto' character of his testimony of the compulsive performance remains entirely unquestioned, and reminds of a purely biological process. Indeed, rather than expressing the need for overcoming this separation, Alan renders his compulsive interaction with the unknown object with the small characters as utilitarian as he does interacting in other-than-compulsive manners with objects such as the glass that holds its drink. In Fleissner's (2007) terms, Alan describes his involvement in the compulsion as through being a *körper*, rather than *leib*. As such, compulsive interactions can be experienced as a necessary evil, for which kinds no negotiation is needed.

The absence of emotional engagement with Alan's interactions, Sage's invocation of appeal and Ginny's distinctive 'addition' emphasize an unpredictability, and as such, unknowability of compulsivity. By extension, any spatial expression beyond the immediacy of unfolding compulsions then do not seem to pervade in subjectification processes. This sets up compulsivity as a spatial process that cannot be known by the human, which confirms the minimal governing role for people with compulsive tendencies[30]. Compulsive interactions could, therefore, possibly not be experienced as forming a spatial collective of sorts, and as such would be impossible to negotiate on a structural spatial level. Despite or in lieu of their non-relational character, the urge to compulsively interact seems to emerge in an unprecedented manner and can cause major disruptions. The next subsection explores this in light of subjectification processes, as well as the change such event can constitute in the relations between bodies, objects, and spaces.

4.2.3 Disruption

In order to understand how understand how compulsive interactions can emerge with bodies, objects, and spaces through the forcefulness experienced to pervade them, his subsection turns to the situational difference with which they emerge. Understanding the kinds of forcefulness with which compulsive engagement is produced – when it

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[30] I elaborate on the diminished role of the human in compulsivity in conference paper "The Nonhuman of and within the Human? An embodied geography of compulsivity", Session *Becoming Geography's others: thinking through antonyms (2): Constructing Opposites*, RGS with IBG Annual International Conference 2017, London.

unfolds in the awareness of the person involved – may provide more insight in negotiations. This subsection puts forward the ways in which compulsive interactions can more or less violently disrupt other-than-compulsive life. Interactions manifest as shorter or longer and bear no reference to unfolding other-than-compulsive acts; neither during, nor before or after. According to Sage, in order to resume non-compulsive acts, these compulsive acts need to be performed as soon as possible, to avoid what she calls "stagnation in your normal activities". Summarizing the interview with Bill straight after it took place, as the recorder failed to record it, I recall how he had explained his compulsivity in these terms:

> *"It happens throughout the day, that's why it means that they are kind of short interruptions in movements he… makes, because he walks for instance through the door to his living room. Well, he has to touch the door knob in a certain way and kind of tap it for a bit when he walks away."*

When he prepared for leaving the house to do grocery shopping for the observation session, the extent to which the non-compulsive activities would be interrupted, taking him out of his 'flow' became markedly clear during the observation. In addition to taking one puff from a small cigar in the kitchen, and checking if the back door is closed, he has to completely open and close the dishwasher upon walking past it. Leaving the house thus becomes an often interrupted process. This continued in the supermarket where he had to carefully position and pinch all items he put in his basket for a few seconds. This prevented him from continuing walking through the supermarket, looking at other items on the shelves, or checking his grocery list. Nonetheless, larger movements leave possibilities for uninvolved body parts to become compulsive. In the non-compulsive act of moving a candle holder, Sage's fingers retain the possibilities to engage with it compulsively, as they are restrained in the ongoing non-compulsive act. Disruptions can therefore be evaded by planning them in accordance to bodily capabilities, object capacities and spatial organisation. This creates a multiplicity of quickly shifting micro-geographies produced by the capacities of the body, varying in the kind and totalitarianism of the body's involvement.

Dylan understood his compulsivity mainly on its disruptive aspect in the sense that he felt compelled to repeat certain interactions in a way that is just-right, because the first time he did them was wrong. As such, the disruption compulsivity caused him expressed with making sensations just-right again, such as walking through a door again. As mentioned in Section 4.1, Dylan sought to explain his experiences mainly in biological terminology:

*"I have this idea that ehm… Tourette's often… disturbs the
processing of a signal, and that this means that it has to happen
again… (…) and because it's not right in your neurotransmitters, the
signal has to go again and again. (…) sometimes a signal comes
from somewhere else; you bump your elbow into a door, because
you walk through it with your hands full. You touch the door, but
then… there's a stimulus you hadn't caused yourself, or something*

No

*Ehm… and that means that it has to happen again… otherwise the
stimulus doesn't dissolve."*

During our meetings he regularly had to repeat interactions that are intended and part of planned activities, but were not performed just-right. They stopped him in his tracks on multiple occasions, and interrupted his 'flow' of intentional acts, which in his words are an "overlap of the normal and abnormal". Every time Dylan *was involuntarily encountered by* object matter[31], it incited violent compulsivity.

Some interactions have a violently disruptive urge thrust as they have a strongly situated character; for instance Elisa's compulsivity that urged her to look at lampposts whilst driving. These interactions could not be postponed as this would endanger her and others around her, because she felt compelled to look at them. Driving on streets and junctions with many lampposts thus required her to interrupt her driving activities for longer. Additionally, she explained that if she would feel she had "missed" one, she would have to turn her head and find it behind the car. These compulsive interactions therefore had to be performed immediately, which made them very disruptive. This situation thus caused ongoing turbulence (see Serres 1995) for Elisa, as compulsions directly impeded her driving the car. The lampposts cannot be avoided to be looked at, and are crucial elements to both compulsive and other-than-compulsive life, and therefore multiplicitous (Anderson and Wylie 2009). In relation to her body and the car, the lampposts thus created ongoing friction (after Deleuze 1991; Bennet 2001)

Such object multiplicity can also help understanding the turbulence of cleaning small objects for Sage. Dusting one small object after the other on display presented her with fast changing situations of different objects passing through her hands. During her second eye-tracking session she picks up a statue of a Greek god and dusts it, and when clean goes to put it back in its place. She does not bat an eye when suddenly her

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[31] Having established that compulsive interactions are not performed by the human with less human dominance as in other-than-compulsive engagements, I use a more passive language in the text to indicate the diminished human involvement in compulsive performativity.

hand holding the statue stops mid-air. Her right index finger forcefully presses in the hollow of its back. Rubbing it a good few times, her hand brought it back to 'its place', because it distinctly had one in that section, she would clarify later on. My fieldnotes mention her having argued that when the urge has little time to arise, it grants her even less to decide whether to suppress or not, which gives the compulsive act to follow a strong sense of immediacy. Nonetheless, in the urge to compulsively reorder the cushions on Siôn's sofa, is very disruptive, despite having had longer to decide whether to 'give in' or not. During his third eye-tracking session he set the table for lunch in his living room, and had to do this three times. He elaborates:

> *"It's not that I decided to do it an hour in advance, like 'this isn't good, I still need to do it', It really just pops up in my head or something*
>
> Yes, indeed
>
> *I'm repositioning these things now*
>
> Whilst you hadn't entirely finished setting the table.
>
> *No, indeed, certainly not!"*

As such, any task in his living room is interrupted very often, which causes him to sometimes forget what it was he was doing, which was visible on the eye-tracking recording. He hesitates where to go next and this gaze switching between the kitchen and the lunch table, before he continues setting the table. Also Lowri explained that she had to put everyday activities on hold because an engagement with particular objects could become problematic as it could suddenly turn compulsive:

> *"It's more like from getting up [in the morning] until going to bed, and by chance I see something, ah… then I have to touch that for a second if I, if I'd have to… or I'd have to… like… I'm putting the laundry up ehm… I pick up two clothes pegs, then I have to…. then I have difficulties with choosing these pegs. There's always something like… that continual getting stuck, I always have to, like, interrupt, like, hold back…. Then you'd have to get over that barrier."*

'Getting stuck' caused her to always have to prepare for non-compulsive activities to take extra time, because she found it difficult to 'get over that barrier' and continue the activity she had been doing before. This suggest that the interference of object-matter with the body in ways that are not planned, intended and even predicted or foreseen has a capacity to become compulsive. As such, as any object can incite a compulsive urge as they have 'complex presence' (Mol 2002), which means that in practice compulsive interactions can *always* occur. In a similar way, certain kinds of spaces has

complex presence in the sense that they are always evocative, and urges to compulsively interact are always experienced. Museums had come up as incessantly creative of such embodiment. Joe reflects:

> *"But, you know, it's just what, eh... Where you are and with whom you are*
>
> Yes. For sure, yeah
>
> *Look, for instance when I walk in a museum or wherever, then I'd just like to handle everything, what I had told you before as well."*

Compulsive interactions can be anticipated to a certain extent. For instance, having a chronic condition because of which he had been in constant pain for a number of years, Bill was not very mobile, and on the occasions he is, he very often finds intended activities interrupted by having to stop to put objects "back in their place", and (re-)align, touch or handle others. Spending most of his days in the living room, the urges are not as pressing that he has to get up from his chair immediately to make a situation just-right again. However, he could not escape having to engage with the urge sensation the moment he stands up from his chair. During the interview he pointed towards multiple objects that had been ordered correctly before he sat down. Nonetheless, with the presence of others this situation often changed. Every time he stood up from his chair, he had to make the situation just right again, before continuing with intended tasks. As such, getting up from his chair may be conceived of as resulting in anticipated disruption. This does not mean that they can be avoided, as Mina argues:

> *"A ritual of waking up in the morning, drinking coffee, checking up on what happened… is not really a… that's more like a habit. (…) Rituals are more innocent (…) but… for example absolutely having to sit at the right side in the train*
>
> Yes
>
> *Is a ritual… but with a mandatory character."*

Hence, she knew these mandatory rituals would happen, and could plan for becoming compulsive and slipping into a compulsive act. Such interactions should therefore not be conceived of through the shock of immediacy, but more as disruption in terms of the strict demands it poses to particular intended tasks. As such, they have the capacity to disrupt when these demands cannot be met. This implies that compulsive interactions somehow have to fit with ongoing situations.

Exploring inflections of compulsive disruptions to other-than-compulsive life, it might seem that these kinds of compulsions constitute body-object-space configurations that the human is required to produce. In other words; having to sit on the right side of the train could be seen as not causing a disruption of travelling by train, but *a situation that needs to occur*, otherwise the train trip may disrupt the experience of further life as it *should* unfold. As such, compulsive interactions might be considered to be experienced as immanent guidance on the transcendental unfolding of life (after Rose 2006; Wylie 2009). By extension, not-just-rightness might then be conceived of as the turbulence that is experienced before a situation is just-right again. As argued in Section 2.3.4, having the right sensations when walking through a door, and Dylan feeling disrupted *being touched* by the frame could then be argued to be inconsistent with the 'compulsive culture' that the materialities and spatiality of the situation give rise to (see also Romanillos 2008; Simpson 2009).

Negotiations in such invocations would be aimed at making sure that the violence with which compulsive interactions have to be performed are kept to a minimum, by attempting to anticipate them. As Bill does before he sits down in his living room chair, he makes sure all objects are in their rightful place, which is a negotiation to minimize future compulsive engagement. Also, anticipating having to touch all kinds of objects, such as chestnuts, the wool fur of sheep and tree bark during the participant observation, Joe's pace was high, he had his hands in his pockets, he mostly looked down and held conversation with me. These can be understood as multiple ways to shut his body off to environmental affect that could incite compulsive urges. Also, negotiations could be aimed at having all kinds of strategies in place to make certain situations happen (further elaborated on in Subsection 6.2.1).

These considerations demonstrate that the rigidity of boundaries between compulsivity and other-than-compulsivity are more fluid and sometimes absent than clinical theory purports. Also the clinical interactional categories can be questioned on their usefulness as compulsive engagement more often than not invoke combinations of 'touching', 'ordering' and 'symmetry behaviour' categories (see Cath et al. 2001). These categories thus seem to too reductionist, do not reflect the breadth and strong differences between the interactions and do not capture all compulsive interactions. The dominant discourse in clinical literature pervades that compulsivity is understood as a phenomenon that requires eradication when the increasing urge becomes too uncomfortable. This implies that with the performance of the compulsive act, the urge is satisfied, and the compulsive 'moment' passes, after which a completely non-

compulsive state is reinstated. Sage's experiences in this study unsettle such invocations. She and others suggest that a partial dissolving of the urge is acceptable as well:

> *"If I'm cooking, I know that these hands will touch the pan, so I do it beforehand for a bit//* Oh! *//If I light the gas, I go to touch the edges like so… ehm… and it's not enough because when it's on the stove they're hot and I still want to, but then at least I got to satisfy it a little bit without getting hurt*
>
> Ah ok… because you'd still have a recent feeling in your fingers?
>
> *Yes, yes, and I have done it at least, just… I still want to, and especially because it's hot, but at least I got to satisfy it a little bit. That's better than not touching at all."*

For Sage, performing an as yet non-compulsive compulsive act helps retaining a less uncomfortable urge sensation when it would intensify with the heating of the pan. Negotiations such as these thus involve performing the interaction without the urge, and enduring the ongoing urge sensation until the situation changes.

This section set out to distinguish compulsive from other-than-compulsive interactions in terms of quality of sensation experienced. I argued that compulsivity can mostly be understood as largely knowable but uncommunicable in terms of quality, and at times untraceable. What seems to distinguish compulsive from other-than-compulsive interactions is the intensity of the sensation, and immediacy with which it requires body engagement with objects in spaces. Additionally, such engagements with objects and spaces can be violently disruptive of intended tasks, and some can have the potential to be anticipated. Compulsions do not seem to be distressing *as such*, but rather their potential are negotiated on the basis of their visibility, and when potentially painful. Indeed, negotiations or the impossibility of negotiation have identified the potential for objects to invoke urges for compulsive interaction, causing dangerous situations, stalling ongoing daily business, or pressure spatial possibilities. Objects can thus evoke an immediate consciousness of one's bodily situation. As such, compulsive tendencies demonstrate to be intimately caught up with everyday other-than-compulsive activities (e.g. train trips, driving, putting up laundry), and as such add a new dimension of spatial tensions. This section also suggests that when studying medicalised performances similar to compulsivity a discrepancy between anticipated and actualising situations could be considered to create tensions in experiences related to ADHD, ASDs, and OCD.

4.3   BECOMING COMPULSIVE

In order to understand in what ways compulsive interactions may be affected by the bodily environment, this section explores how compulsivity emerges in experiential terms. This provides further insights into the spatiality of the subjectification processes with objects and spaces. As also suggested in Section 2.1.1 and the earlier sections of this chapter, in the constitutive processes of compulsivity the kind of negotiation may also be decided on. Indeed, experiential accounts argue that this is the most important aspect of the condition, as it involves managing the discomfort of the urge (e.g. Bliss 1980; Kurlan et al. 1989; Kane 1994). This was in part reflected by the participants of this study. This section explores the experience of becoming compulsive as a spatial phenomenon by 'placing' an increasing sense of urgency and interrogating how the assemblage of constitutive elements to the compulsive interaction can be understood. After this, the section turns to the recurring experience of compulsivity enlacing the body with the extracorporeal through flows of energy.

4.3.1 Urgency

The urge is the strongest experiential indicator of compulsivity unfolding, and announces the complicity of the body, as well as the extracorporeal elements that become constitutive of the compulsive interaction (Patel et al. 2014). Sage expressing "that [she] actually can't not do [the compulsion]", the sensation moving from "just being interested" to feeling compelled to do "a real touch tic". The distinction articulates here more in terms of intensity then as a particular quality (Cavanna et al. 2017), such as in increasing "itch" according to Sara. Dylan added that it could also feel "as if there's something wrong in your nervous system", and that it can even being painful when not "giving in" to the urge, when the "pressure builds" in the body part compelled to take part in a compulsive act. For some participants, like Ginny, the urge sensation located in her chest and would spread throughout her body:

> *"It feels like you're head over heels in love, that's how it feels, pfff…. When you're in love you also feel like 'wooh'! (…) I find that feeling as such terrible! Yes! (…) You can be in love and wholly enjoy it or something, but it's also… If I only just think about it, I'm getting itchy, you know, like 'pffffr!'*
>
> You become anxious
>
> *Yes, then that just gives me itches all over, that comes out of my ears! (…) like someone's touching your ears like that [tickles her ears*

> *and shudders], or like with your nails scraping a chalkboard, like 'wooh'!"*

This is mirrored by Turtle (in Turtle and Robertson 2008, pp. 451) as he described the urge sensation as a "feeling [that] lies somewhere between somatic sensation and imagination." Later that day, when we drive back to her home from having been grocery shopping for her second eye-tracking session, she explained that for her the direction of travel of the becoming compulsive of the situation develops with the increasing tension:

> *"…because if you have a thought… or a feeling, or you have a feeling you couple with a thought, or you have a thought you couple with a feeling… but if you thus speed up, you only have time for the feeling, and the rest of it, you know, then you can't perform them, those acts."*

Thus, between the emergence of the urge and adopting a direction of travel, the becoming compulsive of the situation can be averted, according to Ginny. Furthermore, Sara invokes a spatial dialectic between her hands and two small stuffed animals:

> *"If I'd have my hands off them now, or something, I don't feel the tingling, but if I'd lie down for a while, I would want to pick them up again."*

Picking up the small stuffed animals, the tingling disappears, she argued, which sets up the urge as invariably responsive to the object. Hence, despite the urge not specifically appointing how the body should act on the object, the urge does seem to qualify in the direction of the object matter to interact with, in addition to the body parts that would be involved. Indeed, participants communicated their experience of the urge emergence in a *sensory* fashion, rather than a *sensation* fashion. In other words, the urge is experienced to arise in the enlacing of a sense organ and an extracorporeal element. For instance, Sage explains how vision plays a very important role in becoming compulsive:

> *"Yeah, so Yesterday suddenly with that coat of [partner's name], I thought 'ooh, that's interesting!' (…) so now it's indeed more so that if my eye falls on something, like that element of his coat that I think 'ooh, I really have to touch that for a second'."*

Hence, for this compulsive touch act, the urge comes into being when her eye contacts the coat element, which ontologically releases the urge from Sage's body and into the relation between the corporeal and extracorporeal. In other words, the urge sensation is co-constituted by the object, and does not forego it; the involvement of the object does not seem to be a coincidence. This argument thus confirms clinical scholarship

that provides agency to the extracorporeal (e.g. Leckman and Riddle 2000; Miguel et al. 2000; Swain and Leckman 2005; Crossley and Cavanna 2013; Specht 2013; Cox et al. 2018) in the constitution of the urge.

Whilst all participants explained that they performed an act in order to get rid of the urge, the direction of travel of the immanent compulsive interaction differed between interactions. Urges to touch very often seem to project a particular sensation of a particular intensity that would constitute the dissolving of the pressure behind the compulsive interaction. Mina, for instance, explains in great detail what is required of her in an act in which she handles her own uvula:

> *"Then I wanted to touch it up to after the point of having to throw up (…) that it just about doesn't happen (…) but not… touching it softly (…) these don't count."*

In contrast, in urges that invoke a (re)ordering of object materiality, their adequacy only seems to become apparent with or after the act performance. As such, it does not have an a priori implication what precise interaction will end the compulsive interaction. This lack was voiced by Ginny:

> *"See this jar? Well, I see it's not correctly positioned, and if I place it in the centre – my motivation is that if I place it in the centre I will get a pleasant sensation, and that's why I position it correctly (…) but it's also that I get the itch… but… the motivation… You see, if I get the itch, that doesn't mean I need to straighten it, you understand?*
>
> Yes, yes
>
> *By way of speaking it's the reason that I have to do it, but it's also because it feels pleasant, when I do it."*

As such, she feels that there is a causal relation between the urge sensation and the act that is outside reflection and even experience. Rather, the lack of knowledge about the direction of travel of the urge, and the causality seem to situate beyond the urge, and can be thought of to be dispersed over the compulsive situation. This, then, opens up an ontological gap in the assemblage of causality if it is assumed to sit entirely with the corporeal human (after Glas, forthcoming). Instead, the nonhuman extracorporeal fills this gap. In this sense the urge experience is not connected to the self, because no personal significance had been mobilized by any participant. Therefore, the urge should be regarded as the articulation of the becoming-compulsive of the *situation*, and not just the *person*. This develops the urge as a distributed phenomenon, which maps

onto the compulsive interaction as a coming together of the body with particular objects and spaces in its constituencies.

A dispersed becoming-compulsive of the situation and the location of the urge can be further interrogated in a series of compulsive interactions that are performed over the course of Siôn's eye-tracking sessions. He compulsively re-places empty and crumbled milk and juice cartons six times before they are permanently binned. The cartons can be seen to (1) be placed on top of the fridge after having been emptied, (2) placed on the kitchen table top, (3) thrown in the kitchen bin, (4) taken out and placed back on the table, (5) placed on a book case in the living room, (6) be put on a small table outside, and then (7) binned in the large container in the garage. This takes place in between various other non-compulsive acts, and happens over the course of 30 minutes. Compulsive subjectification processes underpinning this might then be considered to only have immanent value for the person involved, and not invoke any futurisms. As such, like pain, becoming compulsive can be conceived as an irrevocable pull to the here and now (Leder 1990).

It seems that rather than compulsive interactions accomplishing the cartons reaching the new place – i.e. a result of the compulsive interaction – these interactions seemed to accomplish the removal of the cartons from their current situation – i.e. a cause for the compulsive act. In other words, the urge to compulsively re-place the cartons incited an interaction to change the current situation without immediate reference to any future situation other than its difference. Nonetheless, the urge seemed to have dissolved enough with Siôn re-placing the cartons, making the situation less compulsive until it had changed to such an extent that it became compulsive again. The urge concomitantly emerging again with the cartons in the new place compelled Siôn to help creating a new situation again. This example demonstrates again how the situation, and not the person, creates the spatial circumstances under which compulsive interactions can come to fruition.

Some situations becoming compulsive have an immediacy to them that makes the requirement to attend to the situation becoming compulsive resemble a realisation. For instance, Sara's first eye-tracking video shows her turning around the cleaning cloth in her hand because "it didn't feel right in [her] hand". Sage explained this immediacy as an intense awareness of the fabric of fresh laundry she puts on a washing rack during her first eye-tracking session:

> *"It's a kind of conscious feeling what you're feeling in that moment, like with meditation exercises, you know. This, that sensation, that conscious feeling, that's what I think I do a lot in the moment that I hold an object with my right finger tips. (…) It can be that I was very conscious of those other clothes pegs, but that I just didn't emphasize it (…) so it can be that in your eyes I just re-place an object, whilst I in that moment definitely… whilst I have that focus on that feeling."*

As this 'focus on that feeling' interrupts other sensations, the urge as a becoming-conscious incites an acute awareness of the materiality, spatiality and embodiment of the situation. It is a *focal demand* that cannot be resisted (after Ricoeur 1966 in Leder 1990). This acuteness of becoming-compulsive also shows with clean clothes that are picked up from the laundry basket and transferred to the laundry rack to dry. When wrapping around the curves of Sage's fingers when she picks one up, the path of the cold, damp, soft flowing fabric of a number of socks to the laundry line is immediately subverted to her upper lip, tongue and underside of her nose. After the shock of the touch with the compulsive moment being most powerful, and the warmth, form and dryness of the part of Sage's face that touches the sock overflowing in the sock and the cold, damp fabric of the sock overflowing into her face, the urge and the compulsive element of the interaction have dissolved.

The immediacy with which this situation becomes compulsive thus merits understanding the becoming compulsive of a situation as micro-violence bestowed on the body, because other-than-compulsive touching has the potential to reign the body into compulsive touching. This becomes markedly clear during the observation of Bill's compulsions, where I saw him handling doorknobs compulsively every time he needs to touch one in a non-compulsive fashion. The cold, hard metal of the door handles in the palm of Bill's hand invariably required being pinched and their pointy ends pressed with his thumbs. This demonstrates how the situation becoming compulsive does not need a build-up of discomforting tension, but can also happen in a flash. As Joe expressed:

> *"I get the tic or feel compelled to do something – then I do it. But I don't really feel it arriving. It's just… 'You experience it: you feel compelled to touch it: you do it.'"*

Hence, whereas in some situations that become compulsive the involvement of the human takes place not in the realm of the visual, but in that of tactility. Across participants and situations, touching extracorporeal matter for other-than-compulsive reasons 'escalated' into compulsive interactions. After having taken laundry off the line and before folding it and dropping it in the laundry basket, Cai brings socks and

underwear to his upper lip and nose. These particular items seem to be held for a longer duration than the ones in the same series that did not result in compulsive engagement. This is also the case in Sage cleaning small items during her second eye-tracking session. After having held a conversation with me whilst holding a small statue of a Greek goddess, she brought it to her upper lip and nose a few times. As such, perhaps with expanding tactile knowledge of the object, or attuning to its synesthetic textures more finely (after Morton 2013; Clayton 2016) the situation becomes compulsive, granting her very little time to suppress the urge.

In such compulsive entanglement, one is not only at once a body (Leder 1990), but becomes the skin, its bouncy fleshiness, the hardness and 'stoneness' of the statue, the weight and pressure of their conjoining. As Lingis (2000) argues, in such compulsive moment the statue's stoneness reverberates in her muscles, and her upper lip becomes the soft roundness of the statue's head when it becomes pressed in it. The becoming compulsive of the situation then seems to happen *with* the body, not *by* the body, and leaves the reflexive human witness to the act. In turn, this confirms having to think the body not as driving force, but as *catalyser* of a situation becoming compulsive. Negotiating such processes is then incredibly difficult, as especially in terms of (re)ordering objects, it is not quite sure what is required of the body. As Ginny attested, recognising the process of becoming compulsive as soon as possible seems to help. Not holding on to objects seems to be another successful way in which the body can be retrieved from compulsive engagement.

The body's presence, perceptive and sensory capacities, as well as capabilities to interact then allows the compulsive pressure to dissolve with the interaction actualized *with* the body. This radically reconfigures the human involvement to the compulsive interaction, and takes away its ontological primacy. In contrast to the way medicalised conditions have been mobilised on the terms of the human in disability and health geography (e.g. Parr 1999; Coyle 2004; Davidson 2007; Chouinard 2012), this study opens up the possibility to understand them on more post-human terms. The next subsection explores the lack of human dominance over the becoming-compulsive of the situation through participants' invocation of 'energy'. It does so by mobilising the subjectification processes this section has unearthed, and mapping out how they might be constituted in accordance.

4.3.2 Energy

For gaining insight in the spatial processes with which compulsive interactions are associated, this section takes serious and develops the experience of becoming compulsive through energy. This concept has been invoked by a number of participants and sheds further light on their understanding of the human position within compulsive interactions. Indeed, a supporting, rather than controlling involvement of the human resonated with many participants. This may be related to the neglect of compulsive interactions in the medicalization of their condition to date. As a consequence, they had not been offered clinical vocabularies to express their experiences this aspect of their condition through. Ginny, Sage, Tomos and Dylan had developed similar, non-hierarchical ways of thinking about having to perform compulsive acts. Unprovoked by me, they talked about having to do compulsive interactions in terms of 'energy needing to leave the body', otherwise this energy would remain in the body as a tension. This situates compulsive interaction as sustaining a fluid ontology, which subscribes to what O'Connor (2002, pp. 1134) calls a "hydraulic model of tic management". Sage speaks of "a pleasurable release of something that builds up". This situates the body as 'conductor' of energy to come in, flow through, and come out again, in which the becoming compulsive of the situation resembles the energy building up in the body to release it in a compulsive interaction. Ginny argues:

> *"That itch needs to be satisfied, it is a kind of orgasm in a way; then you feel that itch very strongly, for example, and then you crave that orgasm. That belongs together.*

> And there is also, say, a point of no-return?

> *Yes! That! That's also the case with Tourette's: you constantly deal with a kind of energy that has to do with a kind of orgasmic energy. *laughs* And that is just a very powerful energy that's there, and you can canalise it, or, ehm, that that current becomes weaker, or say like 'well, we're not going to that point', but that energy does have a direction. It wants to go there."*

Hence, Ginny understands the involvement of her body in compulsive interactions as supportive of the through flow of the energy current, which direction she can alter to a certain extent, but cannot block. In fact, blocking it is regarded "counter-natural" by Sage. When the energy would be stopped flowing through a body because it does not cooperate, it becomes stuck. Moving things around in his room to clear his bed tidying his room during the eye-tracking session, Dylan recalled that the night before the medication did not seem to work as he expected. It resulted in his body feeling restless:

> *"Then you notice that you do have tics, but that it doesn't come out.
> (…) Often the tics don't reach my legs, to call it that, and then it just
> stays, indeed, then it keeps bubbling a bit and can't find a way out."*

Although he relates his experiences at this point to purely bodily tics, it demonstrates that in these situations, the discomfort of the urge becomes unresolvable. By extension, the becoming-compulsive of the situation seems to require the body to perform particular interactions to release the tension, but somehow the body cannot quite find a movement that allows for the energy to 'find a way out'. Not knowing how to get rid of it, Dylan immobilises body parts affected by this pain or pressure to let them go numb, and he does not feel it. It only helps him temporarily, as he argues:

> *"And that's fantastic in behavioural therapy[32], it's just that you get
> stuck with all that tension.*
>
> Yes, yes, exact. Exact!
>
> *Yes, and that's what I told my therapist, like 'we're not doing that
> therapy', I couldn't take it, I noticed that I had to try and suppress all
> my tics, and it didn't diminish, it actually got worse, or at least all
> other issues got worse."*

Sage shared Dylan's idea that the tension of the urge needs to be developed into a compulsive interaction – or tic – and that therapies, such as Exposure and Response Prevention prohibit "just a bodily reaction":

> *"Ok, there's something that needs to leave your body and you are
> blocking it… and that sounded to me, you know… that's like with
> sneezing and stuff… those are things that just need to get out."*

Even when a body would be trained to endure the discomfort of the becoming-compulsive of the body, and develops a resistance to become involved in the compulsive interaction, Ginny argued that the energy reduced to a "small ball" "is really only temporary", and that any situation that is demanding in other-than-compulsive ways, enlarges it:

> *"And then that's the problem – that you don't know what to do with
> the big ball, because you learned to makes it small (…) but the
> difficulty for everyone is when that big ball is there again."*

Hence, Ginny, Sage and Dylan refer to their urge sensations that signal them to 'release' and 'channel' energy as a body purpose, and inherently part of the way in

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[32] He refers to Exposure and Response Prevention, which is based on learning to endure the discomfort of the urge, that, with time will diminish in intensity.

which they relate to the extracorporeal world, rather than as an incapacity, a fault, or a failure of the body's function. This understanding of the involvement of the body in compulsive interactions subscribes these interactions to a larger system that does not confine to the material thresholds of the body.

This ontology can be developed further by invoking the machinic system by Deleuze and Guattari (2004). This machinic system relates phenomena through their linkage to the assembled reproduction of desire-energy, the body can be understood to assemble extracorporeal affects. However, as the body does not have 'receptive' or reproductive organ-machines to house, process and 'release' the compulsive energy, it can be thought of to 'echo' through the bodily flesh – limited by the outer layers of the skin – and not following a distinct path. This echoing can be felt as burning or tingling sensation in the chest or head. Escaping the flesh would then only be possible by finding resonance in extracorporeal materiality and consequent conjoining of the flesh with affective materiality. In the moment the sensory registers would resonate with such element, the situation would become compulsive, and the energy would start locating in the sensory tissues capable of making physical contact with the element. With this locational exercise, the energy enters human experience acquiring the quality of the direction of travel of the immanent compulsive interaction (Beljaars, forthcoming[33]). This section thus demonstrated that the invocation of energy allowed relating subjectification processes to the spatialities of the corporeal in relation to the extracorporeal. With this, it supports and contributes to more-than-human arguments that challenge "radical discontinuity" between the human and non-human (Murphy 1995, pp. 689). Compulsivity as energy system thus sets the boundaries of these subjectification processes, which situates it as a postphenomenological concept in the analysis of person-place relations (see Wylie 2006; Lea 2009; Yusoff 2013; Ash and Simpson 2016; McCormack 2016).

4.4   CHAPTER CONCLUSIONS

This chapter demonstrated that the way compulsive interactions have been conceptualised in clinical categories provided in Section 2.1.1 (e.g. Cath et al. 2001;

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[33] I elaborate on energy enlacing bodies with the extracorporeal in conference papers Beljaars, D. (2016). "Compulsive Geographies and Desire" *Spaces of Desire: Remembrance and Civic Power*, Cardiff, and in Beljaars, D. (2015). "Geographies of Compulsive Bodies: Reimagining the nature of Tourette syndrome" *Critical Dialogues on Psychology, Behaviour and Brain Science. Graduate and Early Career Summer School*, Aberystwyth

Worbe et al. 2010; Robertson and Cavanna 2007) does not sufficiently reflect the experiences, embodiment and contextual embedding within other-than-compulsive life. Indeed, the chapter suggests that exploring compulsive interactions on and through the experiences of their situated occurrence allowed for developing an understanding of the influence bodily environments have on them. It is able to do so through its analysis of qualitative difference between interactions and from their interweaving with other-than-compulsive life. The distinctive but indeterminate sensations of the urge to interact gives rise to a geography of spatial affects in which the body is involved, but does not dominate.

The chapter demonstrates that bodies with compulsive sensibilities then seem to become enlaced in the affective landscapes constituted by their situation with particular objects in particular spaces. In part, this resonates with Segrott and Doels's (2004) compulsive-obsessive zoning of the house, Callard's (2006) and Davidson's (2007) geographies of fear, as well as Chouinard's (2012) and Parr's (1999) manic and delusional bodily 'entrapment' by objects in a place. Nonetheless, in these geographies, the medicalised condition detects a particular experiential 'addition' to the objects and spaces that invokes violent responses, whilst this is not the case in urge-driven compulsivity. Indeed, as the processes of subjectification explored in this chapter indicate, affective landscapes that are constituted by bodies, objects, and spaces can only be known partially, and depend on non-relational feeling (after Harrison 2008; Romanillos 2008; Wylie 2010). Here emphasis is places on the importance of the haptic (Gibson 1966; Dixon and Straughan 2010) and somatic sensations (Paterson 2009; Paterson and Dodge 2012).

Not all compulsive interactions are consciously performed, or are performed with a particular material result in mind. Rather, the urgency with which compulsions need to be performed and the partially experienced bodily 'conduct' of energy seemed to urge the person to engage with objects and spaces in particular way. Radical immanence, as associated with pain (see Leder 1990), rather than transcendence thus seems to constitute compulsivity. This incites thinking the extracorporeal as dynamic force field (see Thrift and Dewsbury 2000; Anderson and Harrison 2010) that pushes and pulls the body in accordance through its sensitive flesh, echoing Hoel and Carusi (2015). It might even provoke considering the interruptions of the body's other-than-compulsive engagements when it does not comply with this extracorporeal force field.

As this chapter sought to map the subjectification processes through tracing the spatial experiences that are involved in compulsive interactions, it demonstrated how the body

responds and on what experiential bases what kind of negotiations are employed. The affective landscapes that bodies diagnosed with Tourette syndrome are enlaced in seem to be negotiated on the basis of visibility to other people when present, which confirms earlier research on the body (e.g. Goetz et al. 2001; Van Bloss 2006; O'Connor 2002; Davis et al. 2004; Buckser 2008). Nonetheless, it also found that situational knowledge is mobilised by participants finding the least discomforting and interruptive ways of accommodating anticipated compulsive engagement. Wellbeing in place is also negotiated by finding ways to 'channel' the energy through the body and not block it, and developing knowledge about the interchangeability of compulsive and other-than-compulsive habits in situated activities. The next chapter takes these finding forward by exploring them through body-object-space configurations constituted through the compulsive urge and interaction. As such, it seeks to establish what bodily capabilities and object capacities invoke compulsivity, and how these configurations are resisted.

CHAPTER 5   COMPULSIVE CONFIGURATIONS

In uncovering how compulsive interactions emerge and are negotiated as spatial processes between bodies, objects, and spaces, this thesis explores how compulsivity can contribute to our understanding of people-place relations. This chapter interrogates the demedicalised conceptualisation of compulsive interactions through a further non-hierarchical spatial exploration of its constitutive elements. Building on the previous chapter, this chapter situates compulsive interactions *as accomplished*, and folds this accomplishment back onto the corporeal and extracorporeal. In this conceptual move the human body and the nonhuman objects and spaces emerge from their configuration towards the compulsive situation, and are reflected back on their difference with their reconfiguration towards other-than-compulsive life. This allows analysing the particularities of the bodily existence of the human and nonhuman kind in the constitution of compulsive interactions. Such analysis provides a shared ontology which allows analysing the way in which the human negotiates compulsive interactions beyond their reflective capacities. The development of such shared ontology then also allows reconceptualising the emergence of person-place relations from compulsive human/world engagement.

Tracing the human and nonhuman in the compulsive interaction also allows interrogating the value of an ontology of immediacy; where the compulsive interaction is so momentary and so fleeting, that its intangibility could be regarded futile. Therefore, this section demonstrates how the compulsive interaction is affective in itself, and in what ways the constitutive elements retain their affectivity *beyond* the interaction. Rather than seeking to return to transcendentalism in order to open up compulsivity to psychoanalysis, such move explores the possibilities for its spatiotemporal legacies. First, the chapter turns to the emergence of the human corporeal within the compulsive interactions (Section 5.1). Thereafter, the chapter explores how objects and spaces emerge as the nonhuman extracorporeal and how this informs negotiations (Section 5.2). The chapter conclusions (Section 5.3) elaborates on how these findings present human/nonhuman configurations upon which compulsive geographies unfold.

5.1 COMPULSIVE BODIES

This section analyses how the body comes to appear in the compulsive interaction, how it becomes mobilised through its sensibilities and materialities. Herein, the body figures as spatial and affective element itself, moving in accordance with the affective landscapes of its constituencies. Analysing the body and its capabilities in the compulsive interaction then allows exploring what it means for our understanding of the corporeal between and beyond these compulsive moments. Do these interactions and their negotiations overflow in new – non-compulsive – situations, and do they leave marks?

5.1.1 (Re)configuring bodies

This subsection answers to the following questions: how does a body become involved in compulsive situations, and what affects linger before and after these volatile interactions? How does being a situated body reflect back on and map back onto performing compulsive interactions? What affects emitted from compulsive interactions last beyond the moment, and in what ways does that inflect on the bodily experience of a situation? Finally, how do affects that escape the compulsive situation render the corporeal relations with the extracorporeal?

Sage recalled not feeling comfortable in her jeans or trousers and that she kept pulling on them to make the uncomfortable sensation go away. However:

> *"Then I was in the sauna *laughs* and I wasn't wearing anything, and I still had that feeling, and then I thought 'ok, so it isn't the clothes' (…) that every time I just had that feeling like 'there's something on it [clothes]', but the other day I wasn't wearing anything, and then I thought 'hey, my skin just doesn't fit comfortably!'"*

Whilst the sensory registers of the body are assumed to have a coherence onto which experiencing lifeworlds are being mapped, Sage's experience of skin of her leg pulling says otherwise. Besides not quite being able to understand what her body was required to attend to, it called into question how her bodily sensations provide a trustworthy account of her corporeal situation amongst extracorporeal entities. For Sage and others, this marks an ambiguity to what sensations mean to them and how they come to constitute sensibilities. This ambiguity is enough for Lowri to 'get stuck' at

what she was doing, and have to try out what she is required to do, as the sudden realisation that certain sensations may just have produced compulsive sensibilities. This sudden realisation then marks a violent shift of the terms on which the body is situated, through a sudden diminishment of pre-existing rationality, goal-orientation, and meaning which seems capable of stilling the body.

I have witnessed Ginny's body 'shifting' in the supermarket whilst wearing the eye-tracker. During the entire time we were in the supermarket she appeared to require all her concentration for the task at hand. This articulated in her methodical pacing and lack of general interest in the supermarket environment, barely even noticing other people – including me – around her. In concentrating on the boxes of chocolate sprinkles in front of her, she remains unaware of a woman who wants to pass her as both her cart, and her body blocks the aisles. The woman has to ask twice before Ginny can withdraw herself from looking at the chocolate sprinkle boxes. Immediately after having made space for the woman, she stares at the boxes again for a while before taking a box off the shelf. The sight of the chocolate sprinkle boxes on the shelf requires so much of her attention, she seems completely captivated by them. As such, her situated body shifted into deciphering what this sight required of her, leaving her unable to maintain an awareness of a corporeal situation beyond it.

Experiencing life slowed, body stilled and being completely immersed in a particular element in one's surroundings is an experience Ginny shares with Alan. When we were walking on a country path leading through trees and bushes, he remembers having helped a group of scouts searching for a small red plastic triangle once. Proceeding to show me, he recalls finding the triangle as follows:

> *"It was as if that triangle was completely visible as if it was lit up, and the surroundings faded away. That's how I envisioned it. I always have that, when I search hard for something, and I can't find it. When I find it, then it just seems like the vision freezes."*

This element had been so captivating that the 'surroundings faded away', and he became completely immersed in the 'frozen vision'. As such, the triangle in the forest and the boxes of chocolate sprinkles in the supermarket seemed to configure Alan's and Ginny's bodies in accordance to the specified intensities, which blanked out all else until something or someone broke the affective tension. In other words, the 'attunement' to these objects had been so immersive that it impeded on their bodies' ability to attune to anything else (after Brigstocke and Noorani 2016).

Such an immersive or totalitarian experience resonates with Bissell's (2009, pp. 911) invocation of the chronically pained body, in which "chronic pain is presented as an undesirable affective intensity that has no recourse to intentionality and meaning but territorialises the body in ways that prevent other intensities from taking hold." Here, Bissell (2009) invokes the Deleuzean category of territorialisation, which is based on a Bergsonian image that locates difference between two entities. As argued in Section 2.4, in territorialisation processes, entities are always in processes of becoming-other, which has an origin in a former state and a destination when the former state has morphed into something else (Deleuze and Guattari 2004). However, such theory does not capture the shifting of the body – or its becoming compulsive – as the body does not 'become-other'. Instead, it *reconfigures towards a compulsive situation*, but is not entirely captured by it. Hence, the corporeal and the extracorporeal enlaced configure towards a compulsive situation. For instance, in compulsively pressing one's finger into a tip of a table, the body does not become-table and the table does not become-body. Rather, the body and table[34] become the compulsive situation in which the table and body become enlaced in the compulsive intensity. Bodily configuration allows for a less radical and more (post)phenomenological ontology in the expression of such difference.

Recurrence of such bodily configurations towards affective intensities became apparent in particular situations for Sage. She mentioned going for a walk in the rural area outside her previous home[35], and feeling her gaze being drawn towards pointed edges. Whilst she clearly finds it annoying, it also has repercussions:

> *"That I don't pay attention to what I actually – where I actually am,*
> *you know (…) I miss it sometimes, that I can't just look around me for*
> *a bit, because I'm always focussed on those pointed edges."*

With having to make a conscious effort to divert her gaze from pointed edges to 'pay attention to where she is', she is reminded of the compulsive situation of her body as she has difficulties resuming an intended 'just looking around'. As these two states situate the body differently in relation to its constituencies, articulating this difference can be captured with the concept of bodily configuration. Configurations of the body

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[34] Here, speaking of a table would not even be appropriate, as it invoke thinking the object as performing a functional unity, whilst the object is not compulsively engaged with on this function, but on its sharp tip. This critique is made possible through taking Bergsonian images forward, which I do in Section 5.2. Therefore, from this point onward, objects as enlaced in compulsive configurations are either invoked as objects or a extracorporeal materiality.

[35] During the study she moved: from an old farm building in a rural-agricultural area 2 kilometres outside a town/small city where the interview and second observation took place to a flat on the third floor in a residential neighbourhood in this town/small city where the eye-tracking sessions took place.

reflect the kind of emergence of the body with the corporeal situation. Compulsive configurations of the body then reflect how the body becomes enlaced in a compulsive activity; with the becoming-compulsive of the body, it seizes to be configured in accordance to the wishes of the person. After the completion of a compulsive interaction could be understood to 'shift back' from a compulsive configuration to a configuration that is helpful to the person.

The eye-tracking sessions capture the reconfigurations of Sage's body: walking around in her flat as well as during talking to me, her gaze flashes to pointed edges of objects and corners of the room on a regular basis. Especially when she walks from her kitchen to the living room, Sage's gaze meets a few particular points in quick succession. Having to look at things compulsively might not be an interaction that incites corporeal and extracorporeal matter meeting. Nonetheless, it does demonstrate that elements that constitute affective environments present themselves as a patchwork of intensities and demand particular engagements in accordance with particular corporeal situations (after Dewsbury 2000; Massumi 2002; Deleuze and Guattari 2004; Thrift 2008). As such, with changing bodily constituencies, the body is required to reconfigure.

Whilst these instances configure the body in accordance with a visual enlacing, other, more proximate configurations that involve touch also seem difficult to break. Elisa's body seemed to easily 'stick' in compulsive moments, as anything that touches her body tended to remain in her awareness. Therefore she does not wear underwear and glasses, and does not wear piercings as she would play with them until she tears her flesh. Also, she could sleep in 100% silk bedding, but not in synthetic silk bedding. Indeed, the human body *being touched* without explicitly moving to seems to have a similar effect as the human body *moving towards* extracorporeal materiality. As the human can often not escape such interactions as one needs to wear clothes, these interactions retain the body in its compulsive configuration in accordance with the extracorporeal materiality that touches it. For Alan, this feels like his body is hijacked and leads him to prefer being naked.

Heightened sensitivity (see Section 2.1.1) (Bliss 1980; Kane 1994; Crossley and Cavanna 2013) can be understood as bodily configurations 'sticking' in compulsivity, and refraining from assuming ones that allow other-than-compulsive life to proceed. Such terminology implies this configuration as locating in and being solely a problem of the body. This conceptualises the body as an epistemological constant, whilst this study suggests that bodies become reconfigured to accommodate compulsive

moments in accordance with situations that articulate their beginning and end. In other words, the conceptualisation of this phenomenon should be stretched to reflect the spatiality of the human body amongst nonhuman bodies. This invokes an onto-epistemological shift towards an articulation of a bodily engagement with its constituencies. Alan's bodily sensitivity exemplifies this further.

The spot where Alan's body is being touched immediately starts itching: "really quickly I need to – well quite short really, a few minutes or something (…) then I just scratch for a bit". It articulates particular clothes he wears, as well as particular activities he engages in, which, in turn, have a particular geography. The itching also occurs when his hands are tied in a position that refrains him from scratching: during the observation, he held the leashes of the seven dogs we walked. Every now and then when the itching sensation was too strong, he stopped walking and transferred all leashes to one hand to free the other for scratching his cheeks and nose. Here, the itching does not differ from urging or the becoming-compulsive of the situated body. Hence, the division between Alan's body and its constituencies is violently reproduced through the immediate itching of the contact point and through the immediate vulnerability of the body when the hands are unavailable for scratching. In other words, certain bodily situations, especially those that impede possibilities make the body more prone to become compulsively reconfigured. Sage remarked that indeed my presence had such effect when I visited her place for the eye-tracking sessions:

> *"The itch is there the whole time, because that's always the case with you here. I don't want that, so sometimes I suppress it."*

In these situations, my bodily presence become part of Sage's bodily constituencies which she experiences as catalysing her bodily reconfigurations towards compulsive engagements.

In order for the body to reconfigure and to experience for it to be more or less prone to become reconfigured, it carries an ongoing anticipation to be affected by extracorporeal materiality. As Deleuze and Guattari (2004) argue, before metaphysical bodies can affect each other, they need to anticipate each other's presence. In anticipation they are always already implied in each other. Hence, for the body to reconfigure into compulsive and non-compulsive emergence with its environment, the extracorporeal is implied in the corporeal. Ginny put this anticipation in words when discussing the honey jar she had just removed from the table we were sat at for the interview. She had difficulties concentrating as its presence was distractive and she kept feeling the urge to touch it: "now you're talking about it, then I immediately get… then I <u>see</u> that jar and

then I feel that jar". It is not the honey, it is not the aesthetics of the jar, it is not the practice of drinking tea with honey, scooping honey out of the jar or even putting the jar in a new place, nor the social occasion; rather it is the virtuality of the jar in her hands (see Massumi 2002). Instead of an extracorporeal presence that itches, this compulsive situation marks the absence of extracorporeal materiality. Ginny's hands are anticipating the jar and her body has reconfigured in accordance, eagerly awaiting the actualisation of the sensation of the jar. The anticipation of the object with the body might then only be an affective intentionality rather than a cognitive intentional tendency (after Levinas 1998; Bissell 2009; Ash and Simpson 2016).

An implication of the extracorporeal in the corporeal also resonates with Sage's memory of her teenage years when she was unable to sleep without certain objects on the carpet next to her bed. These objects could be anything, ranging from stuffed animals to coasters, to small statues; "anything that caught [her] eye" that evening. They had to remain in close proximity when she slept, to refrain her from lying awake feeling anxious. Sage's body then seemed to be configured towards these proximate items in the situation of going to bed, and the only way to break it and continue non-compulsive life would be to present the anticipated nonhumans to stop the yearning. The spatiality of her body in her pyjama's amongst the bed, certain but not all items in the room, as well as a state of tiredness, bed time, closed curtains, and the fresh taste of toothpaste in her mouth in addition to an exhaustible list of elements that produced the situation becoming compulsive in this particular way. Only with the right collection of objects in her bodily proximity the compulsive element of the situation could dissolve and her body reconfigure for sleeping purposes.

The unpredictable and incessant potential for the body to reconfigure with compulsive situations, and thus the extracorporeal always already implied in the corporeal may be a way to understand the participant's resonance of Nick van Bloss' (2006) experience of feeling overwhelmed by his environments. According to Siôn "your senses are constantly open (…) that you're always aware of what happens around you". Sara adds that for her "it's all more intense" and Elisa asserts that "what comes in does so way too powerful". This is then experienced as state of an unchosen bodily openness to the world. Ginny associates her experiences of asthma with this openness:

> *"I'm just hyper sensitive, it's a complete package (…) I respond violently to everything, you know. 'Too much'. So my controls are just wrongly adjusted there."*

Whilst most participants argue that they feel overwhelmed by their environment for most of the time (see also Gerland 2003), particular bodily states are experienced to exacerbate this openness or catalyse the ease with which the body become configured towards affective extracorporeal materiality. For instance not getting enough sleep or not sleeping well is associated with feeling "even more alert" according to Ginny. "Then [her] shutters have opened even wider", and "it seem that [she] receives even more stimuli, or something… yeah, then they just come in more forcefully". In addition, when she her menstrual cycle starts, the organisation of the spaces in her house, and the living room in particular, becomes affective – or incites turbulence (Serres 1995; Anderson and Wylie 2009), and she is compelled to change it. Furthermore, Bill's experience with having chronic pains makes him feel particularly easily affected on 'bad' days when the pain is more intense. Hence, this experienced radical openness of the senses in accordance with certain biological processes can be understood as people being more aware of the object affects passing through the body and configuring it compulsively accordingly.

Although compulsive configurations are not argued by participants to become more frequent in these moments, the anticipation of the extracorporeal in the corporeal do remind them of their radical passivity in the processes of corporeal enlacing (after Harrison 2007; 2015). The biological processes could therefore accommodate the awareness of the vulnerability of bodily configurations to compulsive situations, which can be experienced as a violent nonhuman lifeworld. As such, conceptualising the body in compulsive situations as configured in accordance with extracorporeal affects, channelling them with compulsive interactions helps understanding some of the experiences of the body in compulsive situations. Herein the body perpetuates and catalyses the affects of extracorporeal materiality (see Section 4.3.1). With the body moving to interact *with* an object and bringing the compulsive moment to fruition (after Lingis 2000; Wylie 2002), the corporeal can be thought to 'slip away' in a compulsive configuration, whilst lasting interactions keep the body configured as such, not allowing the body to re-engage in non-compulsive life. Becoming compulsive is then experienced as the slipping away of the body from alignment with one's goals towards a serviceability for extracorporeal affects. This slipping away of the body into a compulsive configuration has a number of consequences for the person involved, to which the next subsection is dedicated.

5.1.2 Bodies not fitting/shutting down

The potential for and incessant threat of a reconfiguration of the body to attend to the compulsive situation instead of a chosen one articulates in the ongoing mobilisation and experience of the body outside compulsive situations. For instance, Ginny recalls not being able to configure back to non-compulsive life when she leaves the house for work knowing that objects are not in the right place: "sometimes I get an acute error, and I can't think anymore". Failing to configure back to a non-compulsive state before leaving a compulsive situation can result in difficulties aligning the body with tasks at hand. Such experiences lead some to stop assuming that they have their body 'at their disposal' in non-compulsive situations. Dylan reflects his difficulties relating to living a body during his first eye-tracking session. When reaching for and turning the tap valve, he narrates his actions and sensations in relation to his hands:

> *"Here as well ,'flop', and at once it has opened… You would miss, with such a fluent motion, you'd miss… then you'd have to calibrate that whole fluent motion again*
>
> Ah yes
>
> *That's the stress that's just always there when I do fine motor activities… my hands, they…. Water flows over my hands… it's even a bit painful… painful is not even the right word, but it feels strange… something flows over your hand (…) This fine motor bullshit, and then having to wash your hands all the time*
>
> Ah yes, like that
>
> *How tired that makes you – terrible!"*

Dylan talked about his body in terms of calibration here, and repeats this terminology in other moments. When invoking such terms, one might argue that Dylan has alienated from his body and feels the need to actively steer his body at any time it might start reconfiguring in accordance to extracorporeal affects. Indeed, stopping such configurations might be especially strenuous when he needs to interact with extracorporeal materiality in an other-than-compulsive way; the object might become so affective that these interactions require a very deliberate and careful approach. Also during the eye-tracking sessions he often had to resume doing the task he set himself (i.e. clearing and cleaning his bedroom). Picking up objects to put them in a new place often resulted in him getting stuck into dealing with the object in his hand and playing with it and talking about it and his condition in general. After such episode, he would remember the task and pick up the next object. As such, this series of movements

starting with a non-compulsive task required Dylan's body constantly having to actively retrieve it from its compulsive enlacing with extracorporeal affects.

Activities that cannot permit Dylan's body to reconfigure towards a compulsive situation because it would put him in danger, such as driving, are negotiated through a deliberate focus on the body. For the observation driving us to a supermarket, he utilised a special rubber mouthpiece onto which he bit down during the trip. This biting down helped reminding him of his body in the sense that he actively retained it into the configuration necessary for driving. Such interaction has also worked for people with autistic sensibilities (Cowhey 2005; Lawson 2005; Davidson 2010). During the interview he explained:

> *"I also wear it when I have to concentrate. I was just vacuuming: I am wearing it. (…) At the point you can shove eh… tics out in the mouthpiece, the storm in your nut stops."*

During the observation in the supermarket, I noticed him pushing his cart, walking past it, standing in its path and letting it bump into his backside upon which he continued actively searching for the items on his shopping list. Hence, it might be possible to think of such non-compulsive interactions as purposefully incited to reduce the requirement for the body reconfiguring into compulsive situations when the person needs their body to be configured for non-compulsive activities. In other words; such interactions might help channel extracorporeal affects in such a way that for a short duration the body is freed from affects pressuring it into compulsive configurations.

If compulsive enlacing cannot in a way be predicted or perhaps even regulated, such as Dylan does, one might have difficulties relating to one's body. Ginny seems to have such difficulties. She regularly goes to have a massage to "get back in [her] body", and situate her body as belonging to her, reconfirming its materiality and capacities. This seems necessary as configuring her body into non-compulsive movements does not work, or its constant compulsive reconfiguring itself is affective to such an extent that her corporeal existence does not always appear distinctly different from the extracorporeal:

> *"I have to experience matter. I don't experience matter, that's how it is I think. (…) then I just have to touch everything, you know, like, then I'm just all over everything, like… if I let myself do it yeah*
>
> *And what did you mean with not experiencing matter?*

Well, if you a lot – if you experience yourself in unity and as very large, not limited to a body, then you surpass the dimension of matter, then you're in a different kind… (…) I've always been, I used to be homesick to there [an unknown faraway place] then I had a kind trauma, thinking like 'Jesus, what am I even doing here? It's so boring here and everything is so slow, and I have to walk everywhere myself, and I can, in my, with my soul or with my everything I'm there in a second!' In matter everything is so slow, so matter has always been a kind of… negative thing for me, because it was my resistance and it withheld me from going fast, you see (…) For example, when I go to get something I'm already upstairs and then I walked – then I often walk into the edge of a wall. I get stuck because I am there already.

You can imagine it

But my body isn't! [laughs]"

In Ginny's experience of some situations, her body does not only attend to extracorporeal materiality but ontologically dissolves in it by becoming a different 'kind'. Becoming other-than-body – and even other-than-matter – overcomes the configuration conundrum in which the body requires constant reconfiguration in accordance with non-compulsive life. As such, Ginny negotiates having to perform compulsive interactions with a denial of corporeal existence, which, in turn, produces all kinds of other difficulties, including an inability to differentiate between corporeal and extracorporeal matter, and an inability to configure back into non-compulsive life.

In addition to the performance of compulsive interactions, the becoming-compulsive and unbecoming-compulsive of the body then reconfigures it such ways that it plays an important role in how the interactions are performed and how they are negotiated. Indeed, the bodily reconfigurations present major difficulties for those experiencing compulsive interactions; feeling overwhelmed by certain bodily environments, having to face the body 'slipping away', alienating and being unable to function in certain situations, and actively having to retrieve and reacquaint with its movements, mass and situation. Despite lacking meaningful relations to the self, compulsivity emerges with an emotional geography. As such, understanding the body in these terms when it becomes enlaced in a compulsive situation might explain why the urge provides the human as little guidance to the interaction as is experienced (see Section 4.3.1). Regarding the relations between people and place, during these reconfigurations perceptions of the both the corporeal and extracorporeal change, which creates a violent rupturing and therefore fragmentary affective environment. The next subsection lays out how negotiations of performing compulsive interactions hinge on managing

these ruptures, and negotiating the compulsive configurations of bodies and perception.

5.1.3 Assembling corporeal unaffection

Participants have tried to negotiate reconfigurations of their body as it becomes enlaced into compulsive interaction with its constituencies, as well as the perceived fragmentation of the corporeal environment during configurations. In theory, they could do so by altering a number of ontological elements that constitute the compulsive interaction assemblage. The current medical conceptualisation of and ontological responsibility over compulsivity is situated solely with the body, which reflects in the available professional support. Negotiation strategies offered roughly map onto the brain through medication, and bodily movements and sensations via behavioural therapy. This subsection elaborates on the ways in which professional support affects bodily configurations to compulsive situations.

No medication on the market that has been developed specific to what is considered a Tourette's specific brain malfunction (see Section 2.1.2). As a result, many people, including a number of the participants, have a history of trying different medication, and either finding one that works for them at that point in time, trying another kind, or resorting to behavioural therapies. Having met with Elisa whilst she changed medication, I noticed strong differences between her being easily affected and having to perform many tics in a short amount of time with a rather grim outlook on life, and being a less 'busy' body with a more positive outlook on life. She explained that with her previous medication she became performed fewer compulsions, but was emotionally "flatter and sombre" and required 12 hours sleep. With the medication she tried after that, she experienced less compulsivity and required only 4 hours of sleep:

> *"So I had 8 hours extra per day! Yeah, that was fantastic!*
>
> An entire working day almost!
>
> *Yes, that's even a full working day that I had for spending. Yeah, well, it's great, and I also felt very comfortable in my own skin, that sombreness dissolved because that other medication had stopped, so that was just ideal!"*

As such, the new medication did not stop Elisa's body from configuring towards compulsive situations as much as the previous tablets had required from her. Instead, with the new medication that made her 'feel very comfortable in her own skin',

compulsive configurations became less bothersome and took away the emotional labour attached to having to do compulsive acts.

Also for others medication seemed to do reduce the way they experienced their susceptibility to be affected by extracorporeal materiality. Ginny explains the effects medication she had before the study:

> *"Then it's being muted, those senses, the neurons are just being shut down*
>
> Yeah, exactly (incomprehensible speech)
>
> *And that had the effect that I felt that I was in the room one my own behind glass, and it all happened there [points behind virtual glass], and I couldn't feel anymore; I could see it, but not feel it. It was really very strange.*
>
> Yeah, so sight wasn't enough
>
> *Yes, it was as if you're just not involved in the world (…) It made me very depressed, I felt very out of touch with the world (…) I thought 'it doesn't even bother me whether I'm dead or alive', and I have children, you know! Then I just had – then I felt entirely disconnected, from the earth or anything."*

Hence, it seems that Ginny's body remained unaffected by the extracorporeal materiality that she could have interacted with compulsively if she had not taken the tablets. Ginny's experiences here allude to anonymised sight; pure sensation without feeling. Instead of only taking away the experience of becoming compulsive, this medication seems to completely obliterate all her sensibilities to become affected by *any* element of her body's constituencies. 'Feeling entirely disconnected' alludes to her body not configuring in accordance to neither non-compulsive nor compulsive life. As indifferent to the swarms of affects that has previously enlaced her into attending to her surroundings, perhaps this configures her body as object among objects. Such a medicated compulsive body might be conceived of having been brought in a state of numbness as materiality without sensibility, quite literally deprived of a vitality assumed inherent to a humanity (see also Verdellen 2007; Shprechter and Kurlan 2009). Indeed affirmative of such loss of vitality, Sage described being prescribed medication with "increased chances of suicidal tendencies". The psychiatrist arguing that "[she] already had them anyway, those suicidal tendencies" left her perplexed by his "logic", but she hastened to add that "it was closely monitored". Medication as powerful element in the compulsive interaction seemed to affect the rupture of the reconfiguration *as such*. In effect, it reduces the burden of compulsive reconfiguration and therewith partly

dissolves the difference between compulsive and non-compulsive life, or reduces the bodily capacity to configure towards *any* situation.

As the medication did not have the effects Ginny had hoped for, she tried tea of cannabis leaves, which had the following effects:

> *"It's as if there's a veil over ehm… a balloon coming over me, a kind of protective layer that stopped those stimuli from coming in so violently."*

The cannabis tea thus seemed to affect the fragmentary perception of the extracorporeal, and not necessarily the bodily configurations. Dylan feels that with medicinal cannabis, he can "instantly breathe again". He recalls having switched from publicly available "coffee shop[36] weed" and waking up the next day: "boom, space in my head, I functioned, I slept fantastically, and I could walk again". With the medicinal cannabis Dylan's body seemed to improve in ability to configure towards non-compulsive life and not reconfigure towards compulsive situations as often. In other words, the body could still be affected, but it was less vulnerable to become enlaced in compulsive interactions.

Retaining this effect requires meticulous management. The dose of the active ingredient needed to be exactly 0.16 gram for Dylan, and when he inhaled the smoke he held his breath for precisely 5 seconds. He recalled running out of cannabis, and not being able to walk the day after. Therefore, having to rely on cannabis in order to function as well as he does taking the drug poses risks, as he regularly has to find alternatives of coping because "the pharmacist had been too late, got its order wrong or hadn't received it [the weed] yet". As such, the process of chemical alteration of the sensibilities becomes affective in itself. Also, Nora takes medication in anticipation of noisy situations or those prone to evoke social anxieties, such as choir performances on stage would fall about this threshold. Therefore, in these situations, she would take medication, accepting that she would not be "her happy self anymore".

Negotiating the performance of compulsive interactions through these management style chemical inductions striates the body in two ways. Chemical constitutions of the 'acceptably' compulsive body appears to be a finely tuned balancing performance. Firstly, it requires an understanding of one's own body in mechanical terms; it needs very regular and meticulous additions to have the desired effects of being experienced

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[36] In the Netherlands, coffee shops are cafés where citizens over age 18 can legally buy cannabis for private consumption.

as just sensible enough. When the balance is off, the body comes to a grinding halt. Secondly, it striates the body through a lack; without the right kind or amount of chemical addition, it cannot conform to its wanted performativity. Understanding the body as such purports it as fundamentally dependent and unruly (Philo 2007; Chouinard et al. 2010; Schillmeier 2010; Hall and Wilton 2016). In turn, such a notion feeds into ablest models of embodiment following medicalised traditions that see bodies configured in accordance to normative standards and employ hierarchies of bodies (Duff 2011; Andrews et al 2012). Extending this critique from disability scholars, this notion makes the body that becomes compulsive enlaced vulnerable to economic rendition, and ill-performing at that (Hansen and Philo 2007), only being understood as whole when chemically balanced in such a way that it is most productive.

Another way of coping with the compulsive enlacing and fragmentary appearance of the bodily environment is through alcohol. Mina experienced more problematic than helpful effects trying different medication, and could not arrange medicinal cannabis. As a result, she uses alcohol to "dampen the effect" "when it's too much", despite finding "it not very smart, of course". During the conversation we have whilst she draws during the second eye-tracking session, she explains her predicament arguing:

> *"At some point you have an alcohol problem. Then you have to get to rid of that!*
>
> Yeah
>
> *I've never taken a sip and eh… now it's eh… kind of eh… become a proclivity… to eh… at least at one point in the day eh… to just, yeah… be able to relax, but yeah, this is not a solution."*

Similar to Nora's habits of taking medication, Mina using alcohol 'when it's too much' negotiates situations in which the body refrains from retaining a configuration aligned with one's wishes. However, whilst Nora took the medication to avoid others from noticing her body performing compulsive acts, Mina might be understood to take alcohol to not have to *experience* her body at all, including becoming compulsive enlacing. Nonetheless, most participants taking or having taken medication at the time of the study did argue that their medication had a transition period of up to six weeks during which it has not yet reached full capacity. Recognising that Nora is the only participant who was able to use medication incidentally, chemical addition to the body does not cater for the support needed for the momentary occurrence of compulsive interactions.

Behavioural therapies such as Habit Reversal Therapy (HRT) and Exposure and Response Prevention (ERP)[37] do have a momentary effect, and can be mobilised when the person requires it. Neither therapy does specifically address compulsive interactions, as they target the movement of the body (HRT) or the sensation of the urge (ERP). Additionally, these techniques are designed to be acquired in therapy rooms, and as such do not address the situatedness that is required for negotiating compulsive interactions. In case of HRT body parts involved in the compulsive act are positioned in such a way that they cannot be performed, which only repositioned the problem for Dylan. In deliberating treatment options with his therapist, he asserted that he "noticed that [he] needed to stop [his] tics, and it didn't get less. In fact, it became worse, or at least, [his] other issues got worse". Nonetheless, during another meeting he shows me how he prevents compulsive arm movements by immobilising his arm in such a way that the blood circulation halted and he would not feel it anymore. Apart from the unhealthy consequences of such negotiations of compulsive enlacing, it refrains the arm from performing purely bodily tics that only require arm movement. However, Dylan did not mention it to work for compulsive interaction that requires involvement of the body beyond the arm – even just to bring the arm 'in position'.

In the case of ERP, people are trained to not be bothered by being affected, and through not following up on the urge sensation stop becoming enlaced into the compulsive interaction. Unless patients specifically bring up the persistence of everyday objects that fit ERP treatment sessions (e.g. a glass) and can become affective in that therapy situation, ERP does not include compulsive interactions. Nonetheless, having to focus on the urge sensation and refuse to become enlaced seemed to instil an acuteness of bodily presence in participants in similar ways that pain "holds sway" over a person, with "one's whole being [being] forcibly reoriented" (Leder 1990, pp. 73). This reflects Sage arguing that focussing her attention to the urge sensation "[she is] successful in registering where it [compulsivity related pain sensation] is located because of the therapy". Therefore, ERP seems to assert a new striation of the body through the urge sensation, which might paradoxically intensify the experience of body slipping away into compulsive reconfigurations without taking part in the interaction. Indeed, whilst ERP does provide people the power to resist following up on the urge, it does not stop compulsive reconfiguration, because the person has to actively resist until the urge sensation dissolves.

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[37] These are the behavioural therapies used mostly amongst the research participants.

How well ERP works for people is then experienced to relate to how well and often one "practices" this resistance according to Sage. Lowri finds this one of the most difficult aspects. 'Practicing' for half an hour refrains her from doing non-compulsive tasks, as she feels that all she does has a compulsive element to it. Despite having a list that reminds her of compulsive interactions she becomes enlaced in, she struggles:

> *"Especially with that water I had to practice, that is super difficult because it was mainly a habit to… drink like that.*
>
> Oh
>
> *That water, that way, that I had to kind of unlearn it, be-because I… yeah, to drink normally."*

Such compulsive interactions that are not distinctively different from non-compulsive interactions – "random" as Lowri puts it – are not captured by these therapies. Notwithstanding, for some participants who had tried ERP, it did alter the compulsive enlacing *as such*. For instance, Rhys argues that

> *"With the pressure increasing, I can better handle it [the sensation] (...) and that's a very comfortable feeling. Therefore you have more control that I didn't have before."*

This feeling of decreasing powerlessness is reflected by Tomos, who had just successfully finished an ERP therapy series and was very happy with the results. This led him to think about the therapy in more metaphysical ways and regard it as an attitude to life beyond compulsive configurations. Reflecting on a period in his life during which he could not leave the house or undertake many activities, he argues that

> *"It is then that you have to exposure… [sic] I think that you have a kind of wealth as human being when you have limitations – when you overcome those limitations. Or, perhaps not overcoming the physical limitations – I will always have tics – but… can deal with it spiritually. Yeah, then you become such a character*
>
> Yes
>
> *That's what I want to achieve. I'm not there yet, but I want to be there, that."*

Changing the experience of compulsive enlacing by thinking about it in a way that empowers one in the enlacing also reflects the workings of Cognitive Behaviour Therapy (CBT). With CBT, the person is encouraged to think about compulsive interactions through functional analysis, thereby disregarding the embodied, sensory and situated aspects of these interactions. This disregard was precisely what left Lowri

to find it unhelpful, because "that was just merely talking (inaudible) and [she] needed physical practices".

In conclusion, negotiating compulsive enlacing through bodily configurations towards compulsive situations, participants have utilised the professional support offered to them. This kind of support affects the performance of compulsive interactions in a number of ways. Adding chemicals to the body is a more or less blanket approach that can reduce its ability to be affected, which is necessary for configuration towards compulsive *and* non-compulsive situations. As such, it may not always helpful as different situations require different kinds of support. Additionally, chemical additions are affective on their own terms because they need to be managed carefully, which shifts compulsive enlacing from a body/environment assemblage to a body/chemicals/environment assemblage. Furthermore, behavioural therapies affect the compulsive interaction mostly by altering the experience and increasing the masochistic capacity of the body to refrain from acting on the urge sensation, making the compulsive aspect making less bothersome. Nonetheless, these therapies are invariably decontextualized, and for CBT even disembodied. Therefore, this study suggests that the bodily environment can play an important role in mediating and increasing the effectiveness of medication and behavioural therapies.

5.1.4 Conclusions

This subsection analysed how the body is rendered in the compulsive interaction, and how this takes place in accordance with its environment. Participants avoided their body to configure into compulsive situations, through taking medication and behavioural therapy. The spatial approach of this study therefore presents a new way of understanding what happens in these processes, and how space can mediate them. As medical and clinical sciences struggle with grasping 'environmental influences' on symptom expression (e.g. Conelea and Woods 2008; Woods et al. 2009; Cavanna and Nani 2013) (see Section 2.1.2), these findings develop a metaphysics through which various dimensions of compulsivity can be understood in these terms. Consequently, this demonstrates the gaps currently left to negotiate being enlaced into compulsive interactions by the professional support through pharmacotherapies and behavioural therapies. Consequently, participants employ other negotiation strategies, which are analysed in the Chapter 6.

The section also demonstrated that the body can be understood to reconfigure to and with extracorporeal materiality, thereby attending to and sustaining the situation becoming compulsive. During the moments in which the body reconfigures, non-compulsive life that requires all attention and similar bodily capacities seems to come to a grinding halt, which is experienced by the participants as bodily alienation. Such is in line with and further supports perception literature that distinguishes perception in corporeal foci and focal demands (Leder's 1990) as well as geographical scholarship in perception in terms of spaces drawing perception in accordance with its affects (e.g. Rose 2006; Wylie 2006; 2009; Anderson 2014). However, understanding the bodily environment through affect alone cannot explain how the body configures towards particular compulsive interactions.

In line with more-than-human approaches in geography (e.g. Doel 1999; Ingold 2000; Whatmore 2002; Thrift 2008; Anderson and Harrison 2010; Castree et al. 2013), the nonhuman environment reverberates through their bodies with such violence that their bodies can lose all boundaries, and they feel they no longer fully inhabit their own body. The body's reconfiguration in the interaction reflects the 'witnessing role' for the human, and as such compulsive interactions defy a *belonging* to the human (Dewsbury 2003). Indeed, the body is configured in such a way that it refrains from asserting its humanity in the becoming-compulsive and in the interactions. The next section analyses compulsive interactions from the perspective of the extracorporeal, and traces how the bodily environment can be understood to configure towards the compulsive interaction.

5.2   COMPULSIVE ENVIRONMENTS

This subsection explores how the extracorporeal figures in compulsive interactions, and in what ways the bodily environment becomes enlaced. To this end, the subsection analyses what makes the extracorporeal 'enlaceable' in compulsive interactions, in order to understand how the extracorporeal should be conceptualised in compulsive interactions. To this end, the subsection develops an understanding of space in compulsive situations, building on the fragmenting world constituted through reconfiguring bodies. The extracorporeal in the following subsections mainly entail nonhumans such as objects and animals. Nonetheless, some participants have to compulsively interact with other human beings, but emphasize that it is not the 'humanity' of other people that is affective, but for particularly compelling fabrics of their

clothes, such as fleece for Elisa. Indeed, other human bodies become purely involved on their materiality and form, not socialisation. This proposition cannot be a claim, as participants may not have wanted to share thoughts with me that would suggest otherwise. Nonetheless, Elisa explained that she had a co-worker who had had reconstructive surgery after a mastectomy and "just want[s] to touch her breasts", because she "just want to know how it feels". I ask if she needs to know the feeling because it involves a body part with certain social connotations, to which she answers:

> *"No, they could as well be her knees (…) it's not symmetrical, the one is bigger than the other, and that has to be compared."*

Therefore this section renders the extracorporeal through its inhumanity, as such referring to nonhumans, whilst allowing ontological space for humanity potentially implied in the enlacing of the extracorporeal. The first subsection (5.2.1) turns to objects and their spatialities and the ways in which they forge entrance to compulsions, and the second subsection (5.2.2) elaborate on the volatility of the coming together of objects and human bodies in a spatial constellation of the compulsive interaction.

5.2.1 Objectness

This subsection attempts to establish how objects and their spatiality co-constitute compulsive interactions. As asserted in Section 2.1, the extracorporeal is absent in the clinical understanding of compulsive interactions. This study demonstrates that some objects are recurrent in compulsive acts across participants, for instance a glass and socks, but the overwhelming majority differed between participants. Remarkably, the objects involved in compulsive acts, almost never became interacted with in confirmation of their intended usage. For example, during observations and eye-tracking sessions glasses were pinched, socks were brought to the face to touch the upper lip, juice cartons were rolled between hands, tap handles were aligned with their mouth pieces, and stones were ordered in a square on a desk. Following Bennett (2010), in compulsive interactions, nonhumans do not necessarily retain their 'thingness' or 'objectness', and come to appear in accordance to different striations once enlaced in compulsive interactions. Indeed, their configuration in accordance with other striations than objectness and function could be on their shape and materiality. As was a standard question I posed to all participants, I asked Joe to list any preferences for particular textures. He responded in similar wording as the other participants:

"No, no, no, it's just what I think I need to do, I need, but not anything specifically, no. (…) Also in shapes, I'm not picky. That's with everything, seeing something in proportions, I don't care, I'm happy with everything. That's that, but it's not conscious like 'I have to feel that shape or that shape'."

Also from the observations and eye-tracking sessions, participants interacted with a variety of different shapes, suggesting that generalisations of shape and texture cannot be made. In similar ways, a diversity in involved materials, such as different kinds of leather, wood, plastic, glass, metal, paper and cardboard, fabric, plastic, soil, plants, and animal fur, furthers such suggestion. Indeed, as Anderson and Wylie (2009) argue, attempts to pin down nonhumans on their shape and texture would be inappropriate, as the situational aspect of their involvement in compulsive interactions requires ontological dynamism.

Any similarities between materiality or shape of nonhumans more often than not figured differently in compulsive interactions. For instance, mugs have been rubbed and pinched in different place, as well as (re)ordered in relation to the shelf, as well as other mugs. Hence, from the perspective of the involved nonhumans that have existence prior, during and posterior to the interaction, it is not possible to pinpoint if certain aspects might be prone to enlace the human in compulsive interactions. In other words, the properties of objects outside the compulsive act *as such* cannot determine whether or not it will become enlaced in a compulsive act. By extension, nonhumans that become involved in compulsive interactions are irreducible to the category of their existence in terms of functionality outside the compulsive act.

As has been concluded in Chapter 4, the becoming-compulsive of a situation striates nonhumans in accordance with their capacities to take part in the act. Nonhumans involved in compulsive interactions may thus seem to *reconfigure themselves* for the interaction, and in the process disrupt all other configurations. If at all, configurations of objectness, functionality, materiality and shape of nonhumans therefore always seem to figure in partial – and non-hierarchical – ways in these interactions. For instance, during the first eye-tracking session with Elisa, she drove us to her home, but in the moment she turned the key to turn the engine off, she bent forward to the wheel to quickly press her chin onto it twice. After this, she shifted the gear stick into neutral, picked up the eye-tracking battery, and stepped out of the car. From its functionality to steer the car whilst driving and its objectness as a wheel, the wheel reconfigures through its hard, leather patterned curved closeness to Elisa's body. It is a sensation Elisa's hands had been exposed to during the trip, but whilst stationary was suddenly

demanded to locate in the fleshiness and skin of her chin (after Hoel and Carusi 2015). As such, the wheel emerges in the compulsive interaction through its altered appearance to the human in a Hockneyian sense (see Figure 6). The human experience of extracorporeal elements reconfiguring towards compulsive situations can be articulated in the difference in their appearance (after Seamon 1980; Badiou 2005 2009; Shaw 2012). Rather than the materiality, shape or function of the compulsively enlaced nonhuman, it is its stoneness, leatherness, or glassness. As such, and following Harman (2002), whilst configuring towards compulsive and non-compulsive situations, the nonhuman retains an autonomous existence outside their appearance to humans without requiring essence (Ash and Simpson 2016).

Figure 6: 'The Desk' by David Hockney (1984)

Then Joe contended having to stroke taxidermied animals in museums: "then I just know that such a beast has super soft fur, and then I just have to touch it, that's just how it is". In these acts, the animal objects reappear as reachable, touchable softness.

Sage interacts compulsively with different damp objects on different occasions; for instance the damp fabric of a white sock is pressed into her left index finger into before it is being put on the line, and a washcloth that requires being brought to her upper lip and nose when she picks it up from the laundry basket during an eye-tracking session. One of the small stuffed animals is taken out of Sara's bag when on the train back to her home during the observation. She rolls the sewing thread between her thumb and index finger whilst staring through the window. For a moment, it stops being the small stuffed animal and reappears as fabric of the right texture with a movable lumpen thread. The eye-tracking revealed soup bowls, mugs, and stone statues reappearing as flatness when meeting cupboard and showcase shelves, I heard about pans reappearing as hot scorching round metalness, and witnessed tomato stems in the sink reappearing as "black bits" that divert from the colour of the sink. Objects and materials 'shifting' into their new appearance were interacted with on this basis, and configure back to a non-compulsive appearance afterward.

The way nonhumans reconfigure compulsively varies with the situation. During the interview, Bill occasionally picks up his water bottle in front of him to take a sip, and every time before putting it down, the round ball-like bulges on the top and bottom of the bottle needed to be pressed in hard with his thumbs. In these moments the bottle acquires an appearance of press-able, smooth plastic 'ballness'. Later on, this appearance configured similarly, but also through the bulging lower part of the bottle. Also, on a Thursday afternoon, I found myself sitting on the floor staring intensely at craftwork Mina had been working on. She wanted the thumb-thick square made of soap-stiffened raw wool to become a piece that a friend could hang on the wall. Whilst pressing the special needle in the wool, putting new wool tufts on or tearing it off, she narrated how the piece and its details generally 'improved' but usually 'worsened' as aligned with her sensibilities. I saw and felt the piece invariably reappearing as stacked layers of wool, a composition of three figures, and a smooth then bumpy then bulging rough surface. This suggests that with compulsive interactions, the dimensions of nonhumans acquire a dynamism, constantly adapting their appearance to the compulsive situation.

Despite such dynamism, a meta-analysis of all observation and eye-tracking data demonstrated that compulsive ordering interactions with a multitude of nonhumans occurred in relation to dimensions *sharing size*. Similar size might incite easier pattern recognition, and demand similar bodily engagement, such as the four pebbles on Ginny's desk that became rearranged into a square, a pile of papers required a neater

stack, and the stacked books on Elisa's windowsill. Nonetheless, nonhumans of seemingly different size became reconfigured in accordance to a *shared dimension*. It was along these dimensions that nonhumans suddenly made a reappearance during the reordering interactions. For instance, Alan aligns two long and narrow wooden slats on and with the edge of a long rough wooden desk in his garage. The length of the slats became affective and configured in accordance with the desk edge, as the length of the edge appeared similar in length because of surrounding objects. In Shaw's words: "objects reduce each other to caricatures – they literally 'objectify' each other" (2012, pp. 620). Additionally, the first eye-tracking session shows Ginny closing a cabinet drawer with two hands on either side of the drawer, aligning the cabinet with the line on the floor through which it moves away from the table it rested against. After having circled her index finger around the knobs of the drawer, she then moves the cabinet back against the table. In this series of interactions, the cabinet drawer configures with the cabinet, which configures with the floor and becomes reconfigured with the table.

Reconfigurations of nonhuman can occur for the briefest of moments. For instance the moments lasting less than a second during which the front wheel of Sara's scooter aligns with the long stripes painted on the tarmac when she drives on and off elevated junctions. These interactions do not only mark the highly situatedness of the human with the nonhuman, but also present how speed and fast changing situations configure the human and nonhuman in accordance with each other in new ways. Additionally, this interaction does not assemble between Sara's body and the scooter, but between the scooter wheel and the stripe. In these situations, the corporeal overflows into the extracorporeal to compulsively interact with another extracorporeal element. Here, the scooter extends Sara's body and reverberates her sensibilities through its materiality in constitution of the compulsive situation. As such, the nonhuman resonates in and through the human, and in the compulsive moment the ontological difference between Sara and the scooter might even dissolve.

Changing dimensions of the appearance of nonhumans that become compulsively enlaced in interactions with the human occurs with their capacity for relations with other nonhumans. Compulsive interactions then fold materialities onto and into each other, recalling the permanence, or reifying the temporary forms and textures as felt *through* each other (after Lingis 2000; Wylie 2006). Placing a glass on the shelf in a kitchen cupboards confirms the flatness of the upside of the shelf and underside of a glass, as well as the rigidity and musicality of the glass when bouncing of another already placed

there. It redefines the size and roundness of the coins in the figure recovered through their place in the brown sand outside the back door to the garden when stepping over it. It confirms the texture of the two dried and stiff fabric of the two socks when they rub off on the two other socks still on the line of a laundry rack; the absence of a gap between the flowy curtains in the bedroom. And it affirms the texture of the paper becoming more and more grainy when the charcoal stick glides over it again and again and again. As such, compulsive interactions of (re)ordering and (re)placing nonhumans seem to open up an affectivity between nonhumans (after Anderson and Wylie 2009; Ash 2015) which, in turn, allows the human to see with and according to this appearance (Lingis 1998). By extension, ballness, softness, dampness, musicality, colour then "solicits their approach, lays open a field of possibility and materialises a wave of duration" (Ibid. 1998 28-29).

In terms of compulsive touch interactions, nonhumans 'soliciting their approach' might appear through intensities of absence: a pointy edge of a table outlines the lack of finger flesh on it. It might be affective through appearing barren, naked, empty and not-just-right without one's finger. This affectivity can be experienced as the urging for a particular sensation that a compulsive interaction provides. This might reflect the Turtle's experience of sensation occurring *to* an object (Turtle and Robertson 2008). As such, differences in interacting with corners and pointed edges as well as surfaces, temperatures and textures produce specific sensations that which serves as a reminder of what it means to have this body; to be fleshy here and rigid there. Compulsive configurations then fold the human back onto and into itself during the interaction as warm when touching something cold, as soft when stroking the grain of rough wood, the rigidness of a finger's bones when pressing the tip straight into a mirror, the permeability of one's skin when pressing into a knife's tip. It erases the absence of one's upper lip onto a damp sock. Similar to the nonhuman, the human changes appearance towards and in accordance with the nonhuman. In this mirroring of human with nonhuman appearances, the human attunes to the nonhuman during the becoming compulsive of the situation (after Bennett 2010; Brigstocke and Noorani 2016). Performing compulsive interactions then becomes a negotiation of these attunements; extending one's step takes the body out of the slicing of a corner. Asking one's partner to deep-fry the chips refrains the flesh from searing in the hot oil; wetting the book covers to prevent the perfect rectangle of stacked books against the wall from breaking, and looking elsewhere to stop the dense blue of the carpet from becoming interrupted by white fluff.

With movement, compulsive configurations can start developing, as human and nonhuman bodies acquire new dimensions, and with those, new appearances. This demonstrates in the multitude of compulsive interactions during the eye-tracking and observation sessions where mobile human bodies became enlaced in compulsive situations. For instance, interactions enlacing Bill's body were more numerous than when he was sat in his chair during the interview. Nonetheless, conceptualising movement in relational terms understands both the human *and* the nonhuman body to acquire new appearances in 'setting up' the situation to become compulsive. Also, with immobile human bodies, nonhuman bodies changed appearance with which they ignited a compulsive situation. Indeed, whilst Bill's body was sat in the chair during the interview, multiple objects became enlaced in a number of compulsive interactions. Therefore, following Lash (2006) invoking Bergson, the changing appearance – or image – of humans and nonhumans by virtue of their *relational mobility* is affective in itself. In turn, this incites the configuration of both towards a compulsive situation. Thus, understanding the role of the bodily environment in terms of intensity or affect (Deleuze and Guattari 2004; Dewsbury 2000; Massumi 2002;), does not suffice, as these concepts do not allow distinguishing the dimensions with which nonhumans articulate in accordance with the human body. The next subsection takes this further and explores how in the ignition of compulsive enlacing the human and the nonhuman are mapped onto each other.

5.2.2 Vitality and violence

Up to this point, I established that both the human and the nonhuman reconfigure into compulsive interactions and that these elements become enlaced with and through compulsive situations. Indeed, it is neither the human, nor the nonhuman that incite the compulsive situation as they anticipate each other, form into each other, and become folded back onto themselves. Herein lies an assumption of nonhumans to have acquired a certain ontological as well as experiential vitality, which is first and foremost entirely absent in current medical and clinical understanding of compulsive interactions. Additionally, ontological vitality of nonhumans remains largely unthought in disability geography (but see MacPherson 2010; Hall and Wilton 2017), and to a lesser extent, health geography (but see Andrews et al. 2014; Gorman 2016). As Sections 5.1 and 5.2.1 explored on what terms the human and nonhuman reconfigured in the compulsive enlacing, this subsection explores how such vitalisation of nonhumans takes place, and how the configurations map onto the sensibilities and materialities of the compulsive situation.

A number of participants had a discourse of nonhumans as rather lively and active. For instance, Dylan's body becomes strong affected by objects its constituencies:

> *"I often have this that during intense tic moments I want to grab hold of something; a chair or a bottle or a ehm… pillow or whatever.*

> Grabbing hold to not topple over?

> *No. No, often just because it exerts power over me or something… it feels like, kind of, like ehm… but that I just really have to grab hold of something. (…) it's often also that having something in your hands often ehm… also helps with walking."*

Dylan's experience then reflects a human body violently configuring towards what might be understood as purely bodily intensities and nonhuman bodies, during which it arguably becomes enlaced in a multiplicity of compulsive situations. At the same time, Dylan seems to be able to configure towards walking better with a *simultaneous* configuration towards affective extracorporeal materiality in his hands. Potentially, the ongoing configuration of his hands prevents other compulsive configurations to take place. Sage pondered this: "I think if it can't be done, then… it doesn't happen, maybe I register it, but that it indeed immediately…" By extension, she and Lowri confirm that if affective materiality are out of reach, they don't feel affected by it. Additionally, eye-tracking data across situations does not show compulsive interactions when hands are carrying objects other than interaction with the object they carry. Hence, whilst no other participant has mentioned or demonstrate such a practice as coping mechanism, it offers the potential for further research in the future (see Section 7.4).

An iron pillar also acquires a vitality when Nora's body approaches it to "slide her chin along it". She argues that "Those pillars have <u>such</u> an attractive forcefulness over me, I just <u>must</u> do it. They even seem to become assertive and appear mobile when Nora approaches the pillars: she reflects feeling invitational: "and I'm like 'come to me, come to me' *smiles*. Whilst such assertions on the basis of discourse (only) might be difficult to justify, I have become part of a number of other instances where nonhumans demanded such a distinct liveliness in the compulsive interactions that their materialities exuded complex sensibilities. During an eye-tracking session, a banana had failed to reconfigure towards the fruit and fruit bowl it was normally stored in, and required repositioning through compulsive interaction when Ginny walked past it. Watching the recordings, Ginny explains that it "needed more space, kinda, otherwise [she]'d be sad for it", continuing that

> *"He'd be more comfortable, yes! *we both laugh* Yeah, I'm just happy for that banana! Yeah, I really have that with these things, and the reward is then a reason for ehm… that I think they would like it better if they, yeah, don't lie against the other one *laughs* (…) that's it, because I don't like putting something in just some spot, because then I'm like 'this is what they like' *smiles* 'this is comfortable for them. I was also delighted that I had them [cans] all there (…) Yeah, and I'm quite happy that I have that whole family together, those cans."*

It thus seems like the appearance of these objects have reconfigured in such a way that they seem human-like, allowing the sensibilities Ginny described to echo through the situated materialities. The immediacy with which such a situation requires interaction becomes apparent when the fruit bowl demands attention and Ginny glances over it:

> *"I look away immediately, because if I look at it longer [she gets up and walks to the fruit bowl and rearranges the fruits] then it lies – because this has a dent in this, which diverts, and then I have to position it like this."*

In addition to the felt *immediacy of the urge sensation* that reconfiguring Ginny's body towards the distorted configuration of the fruit bowl, the liveliness of these objects also instil an *immediacy in bodily configuration* articulating in the way she jumps of her chair and practically runs to the bowl. Hence, this liveliness might then be understood to purport an experiential violence.

The violence of nonhumans in the compulsive enlacing is overwhelmingly present in the encounters with the participants, as compulsive enlacing can be, and indeed has been damaging to both human and nonhuman bodies. Violence was bestowed upon nonhumans; paper has been pierced by charcoal, dandelions have been kicked, and fine liners have had their tip split, tips of the fountain pen nib had split. Violence on human bodies involved metal pins being pressed hard in index fingers, closing doors had pressed thumbs, metal pans just lifted from the fire had burnt chins. Additionally, small red lights had prevented reading, and a multitude of doors had invoked broken conversations and put social demands on entering through a particular one. As such, things often do not just need 'touching' but "pressed hard" according to Sage, which makes knives "nasty". Indeed, the capacity for violence might inform the appearance of nonhumans when they become enlaced compulsively. As Rhys explains:

> *"It's more that the glass can… shatter, with the hot thing [oven dish] that it's hot, so it doesn't matter that it's made of iron, or an oven dish*

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> *or whatever. It's just the fact that it's hot that makes it interesting, that the glass can break, the fact that the door can close… what makes it interesting."*

Nonhuman "fragility" and "brittleness" then becomes "a provocation", which must be pushed "until it's completely broken", otherwise "it's "feeble" according to Mina. She continues explaining how the nonhuman acts during interactions that mutilate her body as "it really can't be stopped". For instance, biting down on tooth picks stuck vertically between her jaws softly "doesn't count, as you really have to reach that maximum point [of force]", because "if it just cracks lamely. Then you're not satisfied (…) if it doesn't crack painfully". Not all violent compulsive situations come to fruition, otherwise tomatoes would have had pressed holes in them, thin glass would have been bit down on until it broke, paintings would have been felt, scratched and poked holes in, and glass tables would have been smashed with hammers. Instead, tomatoes were being distracted from, thin glasses were replaced by thick glasses, and paintings were guarded and made unreachable, glass tables were replaced with wooden ones.

Other kinds of liveliness and vitality occurs when appearances of nonhumans are not distinctly different from nearby materiality, lose an experiential boundedness and individuality, and overflow into each other. This phenomenon seems to align with a becoming overwhelmed by one's environment, and one or more 'senses shut down' (Williams 2005). As such, this phenomenon had been conceptualised as a problem of the senses and the brain, as it would fail derive meaning from sensory information (see Belluscio et al. 2011). With their distorted appearance, nonhumans violently demand their place amongst humans, as Ginny explains:

> *"Look, like in this space all is standing still, but when I go to such a supermarket, and I've just been to IKEA, then I see so many new things, but it seems like everything is moving. Whilst it doesn't actually move. But it demands all attention – or something – from me. (…) Also, when I don't do it [give all of it attention] and I'm trying to look at one thing, then…*

> Are the others still like//

> *//then I see vermicelli, and then I get from its sides, to put it like that, I get all kinds of thingies *makes crawling motion with her hands next to her face*. That's how it is, I can't explain it in other ways."*

This does not only provide reason to question the location of the phenomenon as with the senses, but it also explains *how* nonhuman appearance changes with the

becoming compulsive of the situation. The effect of nonhuman movement, and through this, nonhuman persistence is as follows:

> *"When I'm in a supermarket, imagine you're in front of a new stand of shelves, and at that moment I see everything that's on display, but I also don't know what it is actually, but I do see all of it. And that kind of hurts my eyes.*

> Ok, ehm… how//

> *//Then it's as if all those colours, all those thingies, all those little patches, that, that just enters me, I don't know what it is, it just doesn't happen with me. Someone else gets the information immediately and sees a bag of liquorice, but I just get those itches, and nothing happens. (…) It's a kind of work of art, blocks with all kinds of colours which also move the whole time.*

> And then you can't get enough information//

> *//Then I'm just standing there like [freezes and swipes an imaginary stand of shelves with her eyes wide open] (…) Six to seven boxes is then one block of colours. Somewhere I see a carton, and then those squares again."*

Ginny experiencing singular products on display alternated with blocks of different colour may have occurred during the second eye-tracking session for which we went grocery shopping. Halfway through the supermarket, she walked into the aisle with all kinds of soda bottles, and stopped in front of a particular stand of shelves. It displayed all kinds of different flavours, bottle and can sizes as well as various multipacks, and she could not find the right bottle. After having searched the shelves by pointing at where she was looking, she asked me if it was allowed to tear open a multipack. At this point I pointed her at one of the notices disallowing that. She then proceeded to take a small bottle from the shelf and moves on. Whilst this situation can be understood in multiple ways, one of them might be the in which Ginny does not see singular bottles or the notices, but just a plethora of colour in that moment, and the only ones she does see are the multipacks and later on the small bottle.

As the moving flurry of 'patches' and 'blocks of colour' dissolve any boundedness, and 'demand attention', thereby 'hurting her eyes' required her to reacquaint with the individuality of nonhumans:

> *"Another person sees a box of vermicelli, to put it like that, and it's always the same box of vermicelli. For me it's an entirely new box of vermicelli every time again." *laughs**

It also effectively make Ginny question their location. She explains that "if [she does not] see that the table is near, then [she cannot] feel it" which results in her walking into it, "making a lot of noise when doing the dishes", and "plumping down on the sofa", as she "can't make that judgement", and fails to "feel the distance from [her] body to a thing". Perhaps the experience of lacking an understanding of object locations can be understood as the demand placed on the human by a plethora to configure in accordance with them. Consequently, Ginny's body constantly required to (re)configure to the next and the next and the next nonhuman, and cannot 'keep up'. It is an inexhaustible situation of reconfigurations towards a warm roundness in her hands, to trailing the path from the hip-high cold metal flatness towards the knee-high softness, towards the sharp hard pointed edge, to the barking low behind her, to the small colourful patches and curves in wooden frames at eye-height on the right, to the rectangle of colourful round shapes at thy-height with the horizontal and vertical lines overlapping with every step, ever intertwined with fabric clenching skin that pulls and pushes it and rearranges the little hairs of her arms with every next movement.

An excess of nonhumans then becomes a vitality in itself; so much so that it imposes a violence on the human body, demanding too much of it. Lowri elaborates:

> "I haven't cycled in a long time, which was like, I was so overstimulated…
>
> Ah, ok
>
> It just didn't work to cycle in the city; 'hold up, and that one, and that one, and that one', so busy
>
> Ok
>
> 'I have to watch out for that, and I have to stop there, and there's a tram and there's a bus, and…."

Fast changing situations constituted by an abundance of elements that all demand Lowri's body to configure in accordance with them then disallowed her to configure to anything else, immediately impeding on chosen configurations, such as cycling. Ginny commenting on why she sometimes could not enter a supermarket if she had had a busy day:

> "For some reason I just had a blockage, and that…. Yeah… I couldn't even just reason through it, it was just as if I was stuck or something, as if my brain I needed for grocery shopping had just failed"

These and previous situations pervade extracorporeal materiality with a vitality in a distinct situation, demanding a compulsive configuration through an ethics of immediacy through a few particularly violent appearances. Not all nonhumans reconfigure towards a compulsive situation in this way; some retain their vitality through persistence beyond one situation. This does not present an anti-geographical argument, in contrary, it demonstrates compulsive nonhuman vitality in a stable multiplicity of appearance. As such, their vitality is so strong that they seem to be able to reconfigure many situations towards compulsive interactions. Their persistence might be attributed to an outspoken individuality. Sage's partner is an amateur sculpture artist, and through his experiences of living with her for a few years prior to the study, he has observed her compulsively engaging with her surroundings. With this knowledge of sensibilities that pervade the interactions, he made a statue out of a soft stone for her.

During the second observation, she picked it up from its place in the living room and whilst compulsively interacting with it, she told me that she was astounded by its perfection to her. This perfection expressed in her frantically pressing her upper lip, teeth and tongue onto the statue, glide her fingers along the sharper edges, pushing her thumb into sharp and blunter points. In particular, the cold, slick, curviness and edginess of the stone statue evoked Sage's to configure into a compulsive enlacing. This statue was one of the few objects in this study that did not shift into a compulsive configuration; always already configured compulsively, as ever extended invitation ready for compulsive enlacing, retaining its affectivity over the years and month it had been in Sage's life.

Whilst this statue's decontextualized vital individuality situates it as a stability that demands the human to configure into a compulsive enlacing (see Lingis 2000), other nonhumans acquire a vitality exactly through their difference from context. Manmade objects and deliberate situations of objects that pervade a presence of humans in 'natural' areas configured Alan to immediately compulsively look at them, change his path, and become very annoyed. During our walks in the wooded area near his home, he remarks and points at wooden fencing poles and remarks on their out-of-placeness (Cresswell 1996). This can be understood as Alan compulsively reconfiguring towards them as they do not 'fit' with the woodland around them, and having difficulties configuring back to the walk. "Nature is allowed to be messy" according to him, and the poles being straight with long lines stand out. Moreover, any crumb participants became aware of had to be removed compulsively in a number of situations during

eye-tracking and observation sessions. Despite their small size, standing out on otherwise smooth, shiny and otherwise uninterrupted surfaces became engaged with compulsively.

In line with this kind of nonhuman liveliness situating in difference between nonhumans, compulsive enlacing also seems to take place when two, a multitude or even a whole system becomes demands compulsive reconfiguration from the human. Plastic tulips in two vases on the windowsill are configured well in a system with the books on the windowsill but not with the other tulips in Elisa's living room, which makes the situation compulsive. Hence, nonhumans do not only seem to reconfigure into compulsive enlacing with the human *on their own terms*, they also seem to retain a compulsive configuration between them (see Ash 2015). Compulsive ordering might then be understood as completing, supporting or stabilising compulsive nonhuman 'systems', to which nonhumans can 'belong' because of shared appearance dimensions, and 'travel' when their appearance shifts and meet other systems. The location of the tulips on the windowsill retains affective because the tulips hinge *in between* systems. Potentially a system that is 'strong' and stable systems might be one that retains its vital configuration from multiple angles. For instance, the spare bedroom Elisa constructed from scratch, which is "just right", or the wall decorated with books and other stuff, on which everything "precisely has its own spot". A weaker system might be easier to break in terms of similarity in appearance and mobility of the nonhumans. For instance, desks, dinner tables, and kitchen counters, and Bill's carefully organised fridge, which is also frequently 'interfered with' by Bill's partner and son. Such systems can require constant (re)configuration through compulsive interactions towards sustainable situations.

This then shapes spaces as ecologies of systems of human and nonhuman configurations that always have the potential to explode into compulsively enlacing via interactions between the corporeal and the extracorporeal. Although these compulsive enlacings then dissolve in terms of energy, they retain their potential through constant (re)configurations, as each enlacing and actualisation of system configuration leaves a historical mark – i.e. the experiential repetition of becoming enlaced in a compulsive system. The collection of potential enlacing and historical marks might then produce the terms on which a space, such as a room, allows the human to configure to chosen tasks. Chapter 6 explores how such collections of compulsive potentials and systems influences situated human life.

5.3   CHAPTER CONCLUSIONS

This chapter interrogated the emergence of both the human body and the nonhuman body from their configuration towards the compulsive situation as reflected back on their difference with their configuration towards non-compulsive life. In formulating an answer to research question 1, this allowed analysing the particularities of the bodily existence of the human and nonhuman kind in the constitution of compulsive interactions. This chapter developed the fragmentation and reconfiguration of bodies and objects in accordance to the other, and as such dissolve into and articulate the formation of the other. Through this, non-representational 'compulsive topologies' are created (Davidson and Henderson 2010; Dixon and Straughan 2010; Despret 2013; Dixon and Jones 2014) As such, compulsive interactions are underpinned by a shared ontology of human and nonhuman configuration that contributes to the theoretical and empirical development of more-than-human approaches in cultural (e.g. Lorimer 2005; Anderson and Harrison 2010; Anderson and Wylie 2010), disability (MacPherson 2010; Munro 2013), and health geography (Duff 2011; Andrews et al 2012; 2017; Gorman 2017).

With regards to research question 2, human and nonhuman bodily configurations towards compulsive situations or chosen tasks can then be considered the dynamic fluid foundations upon which compulsive intentionality, goal-orientation, meaning, purpose, and form and are negotiated. It is in accordance with the compulsive configuration of these elements involved that the sociality, physicality, danger, economic, political aspects of the situation become negotiated. Human bodies did not only negotiate these situations in terms of speed, visibility and anticipation of compulsions, as argued in Section 4.4, but the findings also demonstrated intimate knowledge of the form and materiality of objects and their position within spaces. These object knowledges as well as knowledges of responsiveness to particular environments, such as natural areas, as well as sofa corners provided new insights into the negotiation of compulsive performativity. The spatiality of the negotiations thus strongly expand the current clinical and experiential knowledges of negotiations (e.g. Goetz et al. 2001; O'Connor 2002; Davis et al. 2004; Van Bloss 2006; Buckser 2008). This will be further explored in Chapter 6.

In constructing an answer to research question 3, the findings in this chapter produce compulsive interactions as particular person-spaces relation that emerges between the body and its constituencies on the basis of shared dimensions. These dimensions seem to articulate in material, form, colour, and movement when human and

nonhuman bodies situate in concert. As such, these compulsive relations cannot be understood as demand of the person to the place, which underpins much geographical work in medicalised conditions similar to compulsivity (e.g. Parr 1999; Davidson 2000; Mills 2008; Davidson and Henderson 2010; Chouinard 2012). They can also not be grasped by practices and habits through object functionality and aesthetics (e.g. Bennett 2001; Carlisle 2006; Malabou 2009; Bissell 2011; Dewsbury and Bissell 2014; Ash 2015) or even by intensities (e.g. Segrott and Doel 2004; Bissell 2009) and affect as such because materiality is situated amongst other matter. Instead, compulsive person-place relations seem to be constituted in their dimensional emergence *with* (e.g. Lingis 2000; Simpson 2009; Clayton 2016).

In attending to the research questions, these findings demonstrate how studying difference in kind of compulsions can produce an understanding of not only the ways in which the interactions relate, but what patterns underpin them, and on what grounds objects and spaces fuel compulsions, as well as their negotiations. Indeed, the development of the configurational ontology allowed reconceptualising how the human and nonhuman came to figure through a chronological appreciation of the compulsive interaction. It demonstrated how such configurations were produced by the spatiality of the situation. Chapter 6 develops these findings further, by inflecting the spatiality of the compulsion to the spatiality of situated objects and spaces, and locates compulsions in them. It does this by exploring how compulsive interactions compose spatialities beyond them. In other words, it analyses the effects of compulsions on particular spaces. Shapes, temperatures, and fabrics are then demonstrated to be ungeneralizable. Indeed, with spaces changing with the incoming and outgoing of objects, people, habits, bodily processes, they are being reproduced by and with the compulsive systems and potentials.

CHAPTER 6   COMPULSIVE DURATIONS

The previous chapter developed compulsive configuration as the way in which the human corporeal and nonhuman extracorporeal become engaged in and produce the spatiality of compulsive interactions. Both the human and the nonhuman were found to become enlaced in compulsive interactions through compliance with the evolving situation. This chapter inflects the spatialities with which compulsions emerge as located in spaces. It seeks to understand how their 'mapping' might produce compulsive systems or spatialities and how these are negotiated. From being positioned as 'perpetrator' of compulsions in clinical accounts, as well as anthropocentric geographies of medicalised performances, this chapter situates the human as moving through affective environments with which the human can be 'swept off their feet' by becoming enlaced in a compulsive situation. This does not only have severe implications on how compulsive interactions might be reconceived of, it also has implication for how negotiations of compulsions ought to be understood. In turn, such spatial rendition of compulsive situations that locate body-object-space compositions.[38]

Evolving the narrative of the analysis of understanding compulsions are result of configurations thus far, this chapter turns to exploring the effects of the accomplishments of compulsive interactions that last when other-than-compulsive life takes place again. The previous chapters suggest that bodily environments affect compulsive interactions through the 'requirement' of engagement and interruption of other-than-compulsive life this causes. This section analyses the data on the effects of compulsive interactions beyond the compulsive configuration. When compulsions have ended, the effects last. Indeed, glasses stand in perfect rows in the cupboard, knife tips have been confirmed in their sharpness, and finger tips in the soft fleshiness, bodies have been brought into balance with the room, and small items have been grouped on a desk. Clearly, compositions outlast their configurations. Should compulsions then be conceived of only having a momentary effect, in which the dissolving of the urge marks the end of the compulsive effect, as medical and clinical sciences suggest through their

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[38] From this point onward, I use 'composition' (noun) for referring to the composites body-object-space relations create with compulsive interactions, to indicate that they are a system and last beyond the compulsive interaction itself. This reserves 'configuration' (verb) for the processual constitution of the compulsive interactions and their reconstitution to other-than-compulsive life.

biological renditions of compulsivity? Responding to these questions, the chapter explores the duration of compulsions.

Section 6.1 analyses the affect of the most powerful moment in the configuration, which constitutes the absolving of the enlacing, and the dissolving of the urge. Clinical literature and experiential accounts have indicated this moment as 'just-right' which was echoed by the participants. Section 6.2 develops these just-right compositions as spatial systems that order spaces and objects in accordance with bodies into stabilities, and Section 6.3 explores how these stabilisations collectively act as compulsive ecologies. The final Section 6.4 analyses what spatial strategies participants had developed in negotiating life as inextricably tied to these ecologies.

6.1   JUST-RIGHTNESS

This section explores the ways in which the just-rightness of interactions can bring bodily environments into a 'state' in which the emergence of future compulsions is omitted, or at least postponed. Indeed, the previous chapters imply that compulsions have made compositions of bodies, objects, and spaces just-right to the effect that other-than-compulsive life can take place. In order to understand the effects of compulsions and the moment of dissolving, this section conceives of just-right feelings as truths; as experienced indicator of the least turbulence (see Serres 1995; Anderson and Wylie 2009), and friction between materialities (Deleuze 1991; Bennet 2001; Mol 2002). Such a conception allows analysing how just-rightness informs compositions of bodies, objects and spaces, and how they may be made to endure. To this end, the section explores if just-rightness can be thought to indicate a particular, potentially conducive, spatial order of bodies, objects and spaces.

For the participants, the compulsive interaction itself is understood to unfold with a kind of ungraspable "wisdom", following an incomprehensible "different kind of logic" according to Sage. Ginny affirmed: "I do have my own kind of logical balance, but I don't really understand it [laughs]". This does not only echo experiential accounts that assert that compulsions have no meaning (Bliss 1980; Wilensky 1999; Hollenbeck 2003; Van Bloss 2006), it testifies to the limitation rational thought can inform person-place relations (Harrison 2007; Beljaars and Anderson, forthcoming). Indeed, Sage made a distinction between an "OCD norm" which accordingly requires "everything to lay in straight lines or on colour", and another, which "is more a kind of feeling" that alludes to a 'rightness'. This rightness expresses in a plethora of ways, for instance

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through a rightness in body/place balance. I observed Sage keeping her body in balance with the kitchen. She turned between the dishwasher and the sink and made a 360 degree turn, froze mid-reach, and made a 360 degree rotation in the other direction, before being able to pick up the next object from the dishwasher.

A rightness also emerged between a small rock and Elisa's foot when she accidentally stepped on it and had to reposition her foot and push it into the rock. Furthermore, leather required to feel right to the touch in Mina's leather mending hobby. My fieldnotes reflect her explaining that "she would keep sandpapering the leather until it was as smooth as she needed it to be". Additionally, during the observation Bill had right locations for new items in his shopping basket, which all were pinched and pushed into their right location. It resulted in a punnet of vegetables to the right, a packet of shrimps on top, a drinks carton next to the vegetable punnet, and a bag of prawn crackers pushed below the vegetables. Moreover, music volume change on a computer needs to be done in the right way as Rhys contends: "if I want one louder, I do eh… two louder and one softer." Also books need to have a right scent, otherwise Elisa thinks

> "Oh no, that one doesn't smell good. I'm not buying that one (…) I'll wait for another version, or I eh… I'll do the pocket version via Bol.com[39]"

Rightness thus locates in different aspects of compulsive situations, which defies the simplistic way the notion has been taken for granted in clinical psychological research (e.g. Coles et al. 2003; Neal and Cavanna 2013). In addition, these particular compulsive situations demonstrate how just-rightness is a way forward to reconceive particularities of human enlacing in compulsive situations (see Eapen et al. 1997; Miguel et al. 2000).

For a number of participants, such rightness and a potentially favourable outcome of compulsive interactions can incite a kind of 'superhuman' trust in the particularity and timing of compulsive interactions. Lowri argued that during moments in which she is anxious because she fears something bad has happened to a loved one, then:

> "I'll do more compulsive acts because in your subconscious you want to make sure nothing happens
>
> Ok

---

[39] Bol.com is a large Dutch web shop similar to Amazon

*It's more like… and that can be the exact same compulsive acts that I
do when I'm more relaxed… and that there's a lot of tension and that
it's more stemming from fear."*

The experientially close connection between compulsive interactions and fear then sets up compulsive interactions as almost 'god-like' interventions. As such, it suspends willpower as the human ´lets the compulsion happen´, for the urge is trusted to constitute a just-right situation. In other words, in experience, just-rightness may only be regarded as *end* (see also Leckman et al. 1993; O'Connor 2002; Capriotti et al. 2013; Neal and Cavanna 2013), but in a composition of bodies, objects and spaces, it may be invoked as *mediation*. The body performing compulsive acts then becomes a neutraliser of pressure and fear with the extracorporeal environment as potential assisting element. Nonetheless, fear might sensitise the body to extracorporeal intensities, which might make the body more easily configurable towards compulsive situations, or less hesitant to perform the compulsive interaction.

For other compulsive interactions the attribution of 'god-like' properties does not happen. The lack of comprehension that these produce are then folded back onto the compulsive interaction itself, during which the human requires other, non-representational ways of understanding when compulsive situations have dissolved. Ginny describes putting a finger on this as "it's more or less not right", with Dylan describing pinpointing where the compulsive situation locates exactly: "this you're constantly searching on what level you need symmetry". Also, reflecting on placing lunch items on the table in a particular composition, Siôn argued:

*"Yes, I was just going to say… definitely. That has a kind of order.
Maybe also a practical order with what the boys would eat and us…
those salads a bit closer maybe, but also… the bread a little bit in the
middle at least. A kind of composition eh…*

Yeah and is this a good composition?

*For me it works apparently [laughs] but yeah… I hadn't thought it
through to that extent or something… but I do think about where I put
it*

Yeah, in the moment of putting it down?

Yes."

Nonetheless, even when compulsive interactions involve similar or the same objects, Lowri remarks that a compulsive situation dissolving is "very chaotic (…) indeed always

very changeable". Sage affirms this elaborating on the changeability of the location of a small owl statue on the windowsill:

> "It can be that on one occasion, it does feel good when it's on the right, and in another time, the other thing needs to be on the right side."

Such changeability of compulsive situations that have a certain predictability in them, such as the statue Sage's partner made for her (see Subsection 5.2.2), confirms the very momentary character of compulsive enlacing. In particular, it demonstrates how compulsive configurations of human and nonhuman elements that become enlaced in the compulsive situation do so in accordance to each other. In the becoming-compulsive of the situation, participants reconfiguring compulsively then 'feel' their way amongst nonhumans to bring the compulsive situation to fruition. As participants have argued that the just-rightness emerges with the situation or unfolds with the interaction, it becomes a bodily 'way of knowing' that helps the constitution of the compulsive interaction in qualitative terms (also see Bergson 1911; Seamon 1980). This bodily way of knowing resonates with Sara who gave primacy to her body over decisions she needs to make over what new product, such as plates, light bulbs or in the following instance; bracelets:

> "Then I think like 'which one of the two shall I take, and which one would be the best quality?' Then I'll feel it in my hand, and sometimes my hand gets warm, and then I'll think like 'oh' and I'll have that one. (…) I have that with many things, so much choice, but if there's one that's broken, I'll feel it. When I think 'this feels good', or my hand gets a bit warm, then I'll take that one (…) I like bracelets a lot, and then I first feel how it feels, or something, and then I think 'yeah, I actually kinds like that one indeed'."

In these situations the compulsive potential of Sara's body acquires power in the sense that she understands its capacities to articulate particular values. Indeed, in this instance the compulsive potential of the body becomes reified as an other-than-compulsive bodily capacity which can be explored and utilised outside compulsive moments. By extension, this would render compulsive interactions economical.

In conclusion, the just-rightness follows on to the urge when the configuring human interacts with configuring nonhumans in order to bring a compulsive situation to fruition. Then, the moment the compulsive interaction has peaked and dissolves, the situation is experienced to be just-right. Following up on just-rightness becomes the optimal way compulsive configurations can be negotiated, as it marks the best way to dissolve the

pressure of the compulsive situation. As such, just-rightness may contribute to the analysis of post-phenomenological life worlds, as the composition of bodies, objects, and spaces in such moments are very powerful experiences (see Dewsbury 2007; Romanillos 2008; Lea 2009; Simpson 2009; Wylie 2010; Yusoff 2013; Ash and Simpson 2016; McCormack 2016).

The compulsive situation can be understood to 'crystalize' in this just-right composition. This crystallization could then be conceived of as the 'ultimate' compulsive *percept* (after Deleuze1994; Colebrook 2002; Dewsbury et al. 2002; Wylie 2006; Anderson and Wylie 2009). Just-rightness might then indicate 'stepping into' this perception. Nonetheless, as implied in Subsection 2.3.4, in terms of compulsivity, the percept does not just present a visuality, but a sensibility that intimately entangles constellations of body-object-space relations that is felt beyond the sensory. As with the affectivity of percepts, even when compulsions last less than a second, their actualisations can endure. As a consequence, it might then also be possible to think these 'renewed' compositions of bodies, objects, and spaces as preventative of new compulsive configurations. The next subsection explores how just-rightness has been mobilised by the participants to retain a state of just-right in order to stop nonhumans and their own body to configure into a compulsive enlacing.

6.2   STABILISATIONS

As the previous subsection pointed out, in case of the human being aware, just-rightness can be understood as the most powerful moment of compulsive interactions, where humans and nonhumans are configured optimally in that situation. This section develops compulsive interactions beyond the dissolving of the pressure that had led up to the configurations of the human and nonhuman towards the compulsive moment. It analyses the accomplishment and effects of the compulsive interactions. In a number of interactions that involve touching between a human and nonhuman, the accomplishment seems to have a confirmative aspect. For instance, Joe needs to compulsively touch a chestnut upon laying eyes on it to make sure that it is indeed a chestnut:

> *"Like I said, in that first instance, you think 'it's a chestnut' but before you're convinced, you need to pick it up, and then you touch it, and then you need to ensure if it really is a chestnut by looking at it"*

The 'chestnutness' of the nonhuman needed to be established three times in this instance. It seemed that only after this interaction it acquires a sense of chestnut affirmation to Joe. Only after this series of compulsive interactions he can continue walking. Also, during the interview Dylan explained that when his body was unintentionally touched: "I bump my ear against the lamp and it's party time again", because "then it needs to happen again". Hence, any unprecedented touches instantly demanded a compulsive reconfiguration of body and object to confirm that occurrence (see Subsection 4.2.3). On the contrary, Sage experiences some compulsive touching interactions as unfolding in the blink of an eye. Upon being asked whether a particular touch had been compulsive, she responds:

> "No, with regards to touching not really, or it's a fraction, you know, that I hold the material just that little bit longer (…) it's a sensation I do feel, but goes so quickly that I can't really register it"

During another compulsive interaction between Ginny and a shopping cart the cart seemed to be required to retain the direction it faced. The eye-tracking recordings shows Ginny walking around the cart to take out the grocery bags in impractical ways and push it backward and sideways in returning it to the stall on the parking lot. Remarkably, in these interactions it is not Ginny's body that seems to be the central point of the situation. The cart is. This then requires a radical ontological re-centring of compulsivity to the cart in person-place relations that diverts from humanist geographical traditions and clinical concepts through which compulsive interactions can be approached. In other words; the medicalised phenomenon of compulsivity then becomes truly more-than-human.

A centring of the nonhuman in compulsive interactions is supported by the many compulsive interactions that accomplish a securitisation of a number of nonhumans in 'their place'. Sara is one of the many who asserts that all objects have their own place in her apartment:

> "I find that that chair belongs there (…) I just really like it when things have their own place. (…) The other day, I'd been looking for my bicycle keys for almost one and a half hour, and I had put them right there on that thing *points*, but then I am completely lost where in the world they could possibly be, because they're always there." *points elsewhere*

She explained that compulsive interactions need to be performed when her flat had changed, for instance when objects had moved, which can leave her 'completely lost'. For her eye-tracking session she cleaned her flat, which she had put off doing for that

day until I had arrived in the early afternoon. After having cleaned a windowsill with a wooden snail statue on it, having walked passed it a couple of times looking at it, she repositioned it slightly. Cleaning her flat seems to be a way to ensure that all objects are in their 'rightful' place, and consisted of a series of interactions she did every morning taking about 35 minutes before she was "allowed coffee". Instead of working towards the goal of having a clean flat, she seemed only to take the next step in cleaning after having interacted with all kinds of objects in particular way. Her movements and the compulsive interactions demonstrate Sara not asserting the dominance commensurate with cleaning acts, and the interactions differ amongst objects momentarily involved. For instance, when cleaning her upstairs room, she picked up a tiny Buddha statue for wiping the windowsill underneath it, putting it back and stroking its belly. Thereafter, she very carefully slid the cleaning cloth over the entire surface of the windowsill – in convoluted ways – not touching it as to not reposition it. Additionally, 30 seconds after, she picked up the cleaning cloth holder sleeve, opening and closing it 7 times standing in the middle of the room before walking down the stairs. At that point, she had not and would not use cleaning cloths anymore.

In this sense, Sara's body becomes the measure through which situations and the elements that make up such a situation – including both the body and the objects – are confirmed in their place. This resonates with Tomos who asserted: "if I have to oversee the present and the future at the same time I become very anxious". The confirmative and affirmative aspects of compulsive interaction crystallizing the situation into the just-right state is an indication of a *stabilisation of the situation* after the compulsive aspect dissolves. By extension, compulsive interactions might then be better understood as addressing an *instability* or a *breach of a previous stability* in a place. The latter emerges from, for instance, Elisa's house which consists of particular stabilities in the sense that some objects are not to be moved. She asserted that the organisation of bookcases on the living room wall cannot be changed, and only new books that resemble the ones already up there could be added. I asked her if she has this book case organisation in mind when buying a new book:

> *"Yes, and then I also know *parrot screeches* – for instance Jo Nesbø has one book, and I took it to the charity shop; it's bigger than the others (…)*
>
> Have you read it?
>
> *Yes, and then off with it. I couldn't have that in my house.*

Well, very briefly underneath and it irritated me to such an extent that I'd thrown it out."

Therefore, this composition of the wall can be understood as having stabilised over months and is actively and carefully maintained. This implies that the compulsive interactions that had stabilised this situation indeed prevent the performance of new compulsions, and, as such, elongates other-than-compulsive life.

More often compulsive interactions accomplish a stabilisation that endures this long. For instance, during his eye-tracking session Cai aligned his shoes with his laundry basket that he had just put on the floor in the middle of the room after having folded his clean laundry into it. Later during the session he picked up the basket, thereby breaking the stabilisation with the shoes. Hence, compulsive stabilisation acts can produce dynamic compositions that might only last for short durations. As such, these compulsive interactions can produce stable compositions of nonhumans that are dynamic as they can move through a space. The mobility of such compositions then hinges on the ease with which they can be moved (i.e. a large item is more difficult to move than shoes), and the ease with which objects configure into new compulsive situations.

When taken out of a stabilised configuration, bodies, objects, and spaces can be experienced to have altered configurations which may change the dynamic of the old configuration. Whilst cleaning the book case in her living room, the objects Sage picked up, cleaned and placed back often do not end up in the same composition as they had been in before as they came to appear differently, and therefore configure differently amongst other objects. Moreover, for her and others, the human body can be actively part of the stability itself beyond the interaction itself. During the observation Sage put the clean dishes from the dishwasher into the cupboards in an elaborate bodily way. Either her right thumb, pink or index finger were involved in rubbing and/or pressing glasses, cups, mugs, larger cutlery, spatulas and other large items before putting them in their final place. She argued:

"I'm usually still holding items in a particular way. If it's set, it's usually alright, but it's especially the process of putting down, or something, that needs to happen in a very particular way."

In this act, the body, its movements and its weight, tensed muscles and stretched skin withhold a stability in conjunction with the clean, still warm object, its trajectory from the

dishwasher ending in the cupboard by its pressure on the hard slick surface of the shelf next to similar objects.

Accomplishments that stabilise a situation only very rarely seem to extend into compulsive interactions that involve another human being. Sage remarked:

> *"Often I like it better when, for example, people… walk on my right side, rather than left side. That has to do with a sensation of balance, I think, like 'right is better'. (…) I'm also finding it very difficult, for example, to… walk on someone's right side, so I want them to be right of me, and [I] left of them."*

As earlier chapter have shown, other human beings mainly – if not only – figure in compulsive interactions through their embodiment, not so much on their sociality. The manner with which other human beings do become involved is in the negotiation of how to stabilise a situation in their presence.

In conclusion, this subsection developed a conception of compulsive interactions by studying their accomplishments as situated and emergent stabilisations. These can take the form of object compositions that excludes the human body and is compulsively interacted with to retain its stability outliving the interaction. This is in line with Ash' (2014) analysis of the affective relations between inorganically organised objects and their effects on human bodies (Also see Harman 2002; Ihde 2009). These stable compositions, such as through ordering acts, have different mobility and durations. Furthermore, compulsive interactions can stabilise the appearance of an object or a bodily movement one is involved in, in touching, balancing and aligning acts. This produces an enlacing of the body with its constituencies in compulsive interactions that constantly require stabilisation or demand a renewal at different speeds and with different trajectories (after Mol 2002). In turn, these stabilities influence the emergence of future compulsions. This implies that compulsivity as medicalised phenomenon that, to date, has been understood as *exclusively human*, can thus be reconceived as ordering principle of the human in the spatial relations between the body and the extracorporeal. 'Distributing' the condition beyond the body then renders medicalised performances truly more-than-human, which pushes theorizations in disability and health geography (see Gorman 2017; Hinchliffe at al. 2018). The next subsection renders compulsive accomplishments as multiplicity of stabilities of different kind and duration, providing a spatial, ecological rendering of particular spaces.

6.3 ECOLOGIES OF STABILITIES

If compulsive interactions produce and reproduce stabilisations of collections of objects and human bodies, spaces become distinguishable by the particularity of the actualised or potential stabilities. This section explores how to reconceive of spaces through the ecologies incited and sustained by compulsive interactions and the enduring affects they produce. As such, this section does not only mobilise compulsivity as *mediator* of space, but also as *active producer* of space. Cai can be seen to fold back a corner of bed linen, which has a particular stability in the compulsive interaction involving the bed, the linen, his position of being outside the bed and noticing it in addition to other elements. Also, every time another human being touches the big cushion on the chair in the living room, Siôn walks over to puff it up. This requires particular human presences and absences in that room, the chair and the cushion, daylight, and him being mobile, amongst other things. With different durations of the present or potential stabilities, spaces come to have particular cycles of stabilities breaking. For instance, during the first eye-tracking session, Alan picks up three objects from the garden floor and puts them on the garden table, as he and his wife had sat outside enjoying the summer warmth the evening before. The plants in the garden do not require any compulsive interaction, because they are "natural" and do not need human interference to stabilise them. As such, humans come to know and create spaces through learning and adapting the *patchwork of stabilisations*.

Homes and other private spaces are then spaces that are very well known, which seems to have two main consequences. Firstly, having elaborate knowledge of the details that make them up seems to produce intricate and complex stabilisation requirements, as the observation and eye-tracking data showed. Also, many participants explained that residing in a different place from home for a while takes away the requirement for a while. Ginny elaborates:

> *"Those are all things I own, I see that, that, I see everything as an extension of myself (…) then I go to my mum for the weekend. Then I decouple from here and completely recharge, because at hers I don't feel the compulsivity and I can't do anything, you understand? Then I'm in another house, because it's someone else's."*

Also, both Dylan and Sage argued that going on a holiday also meant "going on a holiday from [their] Tourette's!" Sage elaborates:

> *"When I went on a holiday, a week with my parents and… because all my compulsive acts are so related to places, objects, furniture,*

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> *that the moment I was on a holiday (…) I had lost it all, because all those things, like the route from the living room to the kitchen*
>
> Yeah
>
> *These things that I have to touch… those were different there, and probably if I'd been there for three months, I would have eh… developed new ones at some point, but in a place where you're not residing for a long time eh… you have less time to eh..."*

Alan with strong sensibilities for straight lines and the lack thereof shows me the garden shed of his neighbour from a first floor window, which he experienced to not adhere to his standards:

> *"I look at it every day. Every time I'm upstairs*
>
> Yeah, that's annoying, yes.
>
> *But it doesn't irritate me that it's so strange: that it's not quite right."*

As such, both he and Ginny resonate that a lack of specific 'ownership' or responsibility over situations that could have enlaced them in compulsive interactions. Indeed, I observed Bill to mainly pinch, press, and reorder objects that he either would buy later on, or is still considering for buying. Nonetheless, this does not say that spaces then do not require compulsive stabilisations. On the contrary, it says that stabilisation requirements articulate a different kind, which might, for instance, include more touching or bodily positioning interactions.

Secondly, deep knowledge of a place such as the home also provides many possibilities to stabilise as the participants have high levels of authority over these spaces. Siôn reminisces over the flat he had lived in before dating and moving in with his wife. Because he was completely in charge, and perhaps more importantly, the only cause for change in his house, he called this living situation "planet Siôn", and spoke about it as a utopian place:

> *"Then I would cook, that I'd, that I needed pans and things of course, so that changed, but other than that it was always exactly like I wanted. Then it was perfect, so when I'd come home, terrific! The remote control was still there, the cushion stood like that, always neat and tidy, really very orderly. Yeah, just great."*

Despite thinking about living under these condition as preferable, he also thinks of residing in such places as problematic and therefore unattainable:

"It's just like taking to your planet again, that it…. There we also find things that aren't right, you get dead tired of it, you know."

Also Elisa's living room has been arranged and decorated by her with strong ideas about the appearance, location and potential for mobility of each element, except one small table which is her partner's 'patch'. During the observation she cleaned the living room, explaining how elements connected to other ones and for what reason, such as the before mentioned tulips and wall with bookcases. When she arrived at her partner's patch, she refrained from touching it, despite narrating the frustrations it would conjure up. Furthermore, she showed me the extra room upstairs with wood she had been drying, asserting that "it was allowed there, because the disorder has a function", and "it [was] an intermediate solution." As she needed space for the branches for workshop purposes, that room became a parameter that was beyond stabilisation, hence she did not like going in there.

Hence, with the collections of stabilities people create parameters of relative anxiety, which are produced by often having to reinstate stabilisations. In addition to these parameters, spaces come to exist of parameters of relative peace, which are produced by sustainable stabilities, ownership, and/or the absence of other people, and parameters that accommodate for situations expected to change. An example of the latter kind of parameter is the collection of places the remote control can be expected to locate in Bill's living room. He is not fond of the remote control changing location in general he explained before the interview started, but as it is an often used and highly mobile object, he is happy to find it in another but distinctly designated location. These designated locations are limited to the edge of the large cabinet, the arm rest of any living room chair, and the coffee table. Thus the remote control can 'roam' these locations, but cannot leave it, or its absence produces a compulsive situation in which Bill is required to find the remote control and compulsively place it on the right arm rest of his chair. Therefore, being able to create and negotiate the different parameters that produce the appearance of spaces allows people to live their lives as little interrupted as possible.

The sizes of such parameters seemed to differ, with Elisa's living room, kitchen, and back garden seemingly capturing relatively small parameters. The spaces bursting with carefully arranged small and colourful patches lead her to assert "it seems all a bit messy", whilst Tomos considering the appearance of his studio flat in accordance with larger objects in and off themselves, such as the curtains, sofa, lamp and plants that mediate the empty spaces for walking in. The smallest stabilised parameter in the

spaces of his downstairs flat involves a bulletin board hanging next to the kitchen, appearing "just nice and casual" and "as unorganised chaos". Also Mina's living room has distinct parameters that she stabilises as much as possible, but seem to alter with the activities she chooses to do. For instance, she liked sitting on the sofa to watch TV, whilst when sat on the sofa to read, she required a particular body posture that allowed her to do so:

> *"If I'm eh… for example, sat here… this lamp irritates me so much when I read my book *points* (…) so I have to get rid of that, then I will now (inaudible) because of that blue light *points* – incredibly irritating, so that will be turned off. (…) It's turned off now, but if that red light is on… *points* that's impossible, that needs to be turned off as well (…) that little lamp also needs to be off. I can't read then either. (…) whilst needing to look at the page, that little lamp is just being irritating*
>
> Yes, and then concentrating on... what you want to read//
>
> *//'Nonsense, just read!'*
>
> Yes but then//
>
> *//but then I'll just eh… usually I'll sit in that sofa corner there *walks over to the sofa and assumes her reading posture* (…) and that's not even that uncomfortable."*

During all the meetings with Mina, her living room also has very little colour, and is very softly lit, giving all presences a greyish/cream-like hue, as colour, such as "those yellows [post-it notes], they, those give a kind of irritation". The only other colours can be found in the painting on the far wall across the table from the chair she usually sat at. At times "that also irritates [her]". Off-record we studied the painting, and she pointed out that in particular patches the redness of the gown was too bright for her. With it possibly not hanging at the exact height the other paintings in the room had been hung, the painting hinges on the threshold of non-conformity with other objects with which it requires stabilisations. As such, the painting that is relatively rigid in its appearance on that wall can hardly be stabilised, whilst the small bright lights can be turned off when necessary. Also, when Mina was about to finish making the charcoal drawing during the second eye-tracking session (see Figure 7), she needs me to take it with me "otherwise I'll have to continue with it (…) Yes, then I don't want to see it, because I'm finding it not good, and then it needs to go." As such, individual objects, such as the drawing, can be so powerful that they seem able to overthrow all careful stabilisation parameters that produce the space.

Figure 7: The lion drawn by Mina. It oscillated between *just-right* and and *very wrong*

Indeed, individual presences seem to be able to work as a catalyst or as a neutraliser of destabilisation throughout spaces. Apart from strongly affective – and therein powerful – objects, other human beings can become such presence. Sage recalled her mother becoming such presence when her mother feared compulsive interactions would be able to predict would harm Sage. For instance in relation to a hot oven dish, Sage would have configured herself in accordance with the hot oven dish in such a way that she could cope with the urge to compulsively interact with it until it would no longer cause skin burns upon touching. Her mother would then undo such configurational 'precautions' by saying "watch out [Sage], that's hot". Sage explained:

> *"By saying it [is hot], it just becomes a massive trigger again, leading me to keep having to think 'aaaaah! I want to touch it!'" *laughs**

Following on from the conceptualisation of compulsive interaction accomplishing stabilisation, other human beings are perhaps very difficult – if not impossible – to stabilise in combination with the space resided in. Human beings can be very unpredictable, have a mind of their own and are highly mobile, which might unsettle earlier stabilisations in their changing bodily positions and their ability to alter and reposition nonhumans. Indeed, Ginny explains that "if other people don't participate" in compulsive interactions, "the effect is not as strong (…) and then [she] stops them, because that person doesn't share in the energy". A more harmful co-presence of another human being was articulated by Mina. She explained that in part because she had to share her office with another person who had different preferences as to the appearance and use, she could not work to the desired standard anymore. The level of low light, particular door opening, closed cabinets, low phone volume, empty walls and desk and special chair provided her with what she recalled as "a truly luxurious situation". Her new office partner, on the other hand, required much more light, the door open, open cabinets, regularly had meetings in the others, had put up many photos on the wall and stuff on her adjacent desk. Hence, the presence of this woman and her preferences completely rearranged, and thus destabilised, the office up to the point that Mina had to change office. In this manner, through the presence of other human beings stabilisations are difficult or even impossible to maintain.

Nonetheless, Lowri mentioned that because she did not suppress her compulsive interactions around people who she was "very familiar" with, such as her mother and partner, and that especially her "mum participated in the bedtime rituals." As such, other human beings can become part of stabilisations and thus part of certain spaces in an ontological sense; potentially because of their willingness and malleability to

become part of compulsive interactions. However, the presence of other human beings with whom Lowri was less familiar could take away the requirement for compulsive interactions. She recalled that her 'bedtime rituals' took so long that "the neighbour was brought in [to put her] to bed because with her, it did work". With the neighbour physically there, she "quickly went upstairs", and because of whom such "evening was one I was at ease at". The neighbour might have neutralised the ongoing situation by potentially taking away all grounds for compulsive configuration of all that produced the spaces they moved through.

Whilst the spaces up until this point in the chapter have mainly involved private spaces that became reproduced through their adaptability, other often less private spaces can be considered to be more rigid in their adaptability and duration. Nonetheless, any compulsive situation that can be stabilised will require compulsive interaction. For instance, when turning into the small parking lot next to Bill's house, three out of the four spots had been taken, so he needed to "complete the row" by parking in the fourth spot. The requirement for compulsive interaction and stabilisation of a situation in such a rigid place can be difficult to negotiate because such an interaction is impossible or can be regarded inappropriate to varying degrees and kinds. Prevention of compulsive interaction in itself therefore seems to require negotiations by the human involved, as Sage pondered:

> *"Everything enters but I don't register it, and that's why it took such a long time for me to realise that I'm suffering from it (…) I think 'why am I so tired every time I get out off the bus?'"*

Becoming confronted with spaces that are unstable and compulsively require stabilisation might then also provide an explanation for the experience of easily being overwhelmed by the sensory information, as mentioned in Section 5.2.2.

Through their rigidness and perhaps also the lack of ownership or responsibility over such spaces, the appearances of the nonhuman with which such spaces are produced need to be negotiated in other ways. In these cases, compulsive interactions are performed as avoiding extracorporeal systems to destabilise, and often involve the adjustment of other-than-compulsive movements. The observations and eye-tracking sessions outside domestic spaces provided insight into how rigid, and therein oppressive, structures become stabilised, neutralised or in some cases denied. The white stripes of pedestrian crossings and the tiles guiding blind people come to appear as structural stability when I walk to the station with Sara. Only the white paint stripes were being stepped on, despite it altering Sara's natural gait, and the ridges of the

guiding tiles coming to determine her path along the platform. Unwilling or unable to challenge this system, she treats it as a given and performs in accordance with it. If she would not, her body might destabilise it, even if this would only be for the duration of a step. Also, within her own home such a 'given' system exists, as this pertains to the rabbit cage. As she regards it as the rabbit's, it does not require stabilisation.

Rigid unstable structures that cannot be stabilised through compulsive interaction often seem to leave gaps that then do require stabilisation for compulsive interaction. The conveyor belt of the counter in supermarkets presented a rigid rectangle within which groceries of different size had to be placed. In Ginny's situation the groceries required placing one after another with the widest side to the sides of the belt; and in Dylan's situation same-sized cartons of milk and yoghurt were placed on the belt parallel to each other. Later on, Dylan would keep grocery groups based on appearance in the same spot in his car, such as the eight packs of chewing gum that were also reordered with the same sides up. As such, stable mobile systems consisting of nonhumans with shared dimensions then helped to negotiate larger rigid systems.

Some situations require compulsive interaction so strongly, and reconfigure the human body with such vigour that it takes a lot of effort and active reconfiguration towards non-compulsive engagements to refrain from interacting compulsively. For instance, Ginny sat in my car on the way back from the supermarket and could reach most parts of the surroundings of the passenger seat. However, during the observation, she crosses her arms and presses them tightly around her body to make it physically impossible to reach out and interact to resist configuration, despite having ongoing possibilities to compulsively interact with. During the eye-tracking session, she pushes her thumb nail in the flesh of her other fingers to keep her hands occupied with themselves. This might suggest that parameters of varying stability can only be negotiated by actively retaining a complete other-than-compulsive configuration of the body that requires all attention.

In conclusion, this section suggests that corporeal environments reproduce an evolving ecology of a collection of nonhumans with or without the body that stabilise or destabilise, which is supportive of Bennett's (2004; 2010) lively compositional ecologies. Compulsive interactions can then be argued to 'mend' and/or retain the stability of these collections in order to enable performing non-compulsive life. The parameters within which objects, space elements and bodies have relative 'freedom' to remain configured as just-right then further informs the ways in which turbulence (Serres 1995; Anderson and Wylie 2009) and friction between objects emerge (Deleuze 1991; Bennet 2001). Rather than objects and space elements causing

turbulence and friction, this study suggests that also the crossing of boundaries of compulsive parameters can constitute these tensions. Such an understanding of bodily spatiality then also further informs the geographies of medicalised performances similar to compulsivity (e.g. Davidson 2003; Segrott and Doel 2004; Davidson and Henderson 2010; Chouinard 2012)

Being inescapably connected to ecologies of compulsive compositions might then help explain Bliss' (1980), Kane's (1994), and Sage's experience of perpetual urge sensations. Also, *not* compulsively interacting 'in line with' with extracorporeal rigid stabilities may invoke a compulsive 'crisis'. This situates compulsions as opposites of events, precisely to counter the spontaneity, rupture, and interruption they produce (after Dewsbury 2000; Dawney 2013). Remarkably, herein compulsive interactions have made a 180 degree turn from being regarded as problematic acts and symptoms of a pathology that captures suffering to acts that refrain a person from becoming overwhelmed. With the ecology of stable systems that organise in parameters, this study thus argues that compulsivity actively produces space that orders bodies and objects in accordance with their dimensions (see Matthen 2014). Compulsive interactions are then also negotiated through and within these ecologies. The next subsection further explores how stabilisations of compulsive situations can retain optimal duration, and, consequently, how participants 'retain sanity' in the violent ecologies their worlds seem to consist of, by turning to habits.

6.4   RETAINING SANITY AND HABITS

> *"The art of the matter is that you have control over what compulsivity*
> *you allow or not, and that works for me, quite well actually."*

Ginny explained that finding peace in having to perform compulsive acts for her articulated in finding the right balance of allowing configurations of the body in compulsive enlacing to unfold, and retrieving the body from compulsive configurations to perform a bearable amount. In having to negotiate ongoing ecologies of evolving stability that reconfigure the human body accordingly, participants have elaborated on how environments that imposed the least compulsive demands on them. Such environments require little to no compulsive interactions as they would already be stable without requiring intervention from them to an extended duration. Ginny presents an image of "large grasslands that are not fenced", with Kyrgyzstan as "ultimate spot" because there is "nothing at all, just green hills, you know, where there's nothing in

sight". She also like the sea, and the desert for being "nice and calm", although it is "too noisy because of the wind there". Alan prefers walking in a cemetery, and argued to like walking in the rain because "that reduces stress better". Siôn reminisces over living in Zeeland[40] as he grew up on a farm, and feels the desire to move back because he finds it "a nice place, but mainly [because of] the peacefulness, the expanse of the polder." Also

> "The church bells play in a particular way. I became very tranquil
> when I heard that sound. Then I think, 'oh man, I'm in another world'"

In the house he lived during the study, he liked residing in warm, light, sunny places, something he also did during the interview in the front room. This room incited him to

> "Just stand there, like, very quietly, then I could look for hours.
> Bizarre really, that you can just enjoy a piece of tranquillity (…) I can
> kind of explain it, but that you feel so happy that your eyes are restful
> again – or something."

On the contrary, Ginny argued to need to reside in a darkened room when she felt overwhelmed by the day, such as after a busy day at work: "after coming home, I'd first needed to be in a dark room, curtains closed" to "meditate". "After an hour or some [she] could do cooking or something." Dylan put his experience of being "calm" in words: "I am on earth, I am here". Hence, in the invocations of spaces that were experienced to be or would be therapeutic have an appearance that lacks distinguishable systems, or have very few differing parameters of potentially compulsive collections.

Whilst remaining in such therapeutic spaces is unpractical for most requirements of everyday life, there are other ways of residing in a plethora of spaces whilst not becoming enlaced in compulsive interactions. The previous subsection concluded that maintaining stabilisations helps postponing compulsive interactions for re-stabilising collections of nonhumans with or without the human body. Postponing destabilisations would mean causing as little disturbance to stabilised situations. Doing everything the same as before, handling objects, making the same movements, approaching spaces from the same angle, referring to the body in similar ways, maintaining order and timing then might reduce the chance of situational change. Therefore, it might not be

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[40] Southern province in the Netherlands, which is a coastal region, is mainly agricultural, sparsely populated and relatively strongly religious.

surprising that many participants have highly routinized, habitual, and carefully planned their lives. Ginny elaborated:

> *"If I thus have a very structured plan, then that is a thick current with which I go along, like 'I'm going to do this and I'm going to do that', and then I suffer less"*

Such routinized ways of going about everyday life conjure up a highly embodied future that consists only of the gestures and moves of non-compulsive futures. These kinds of imagined futures might help retaining the bodily configuration to non-compulsive aspects of life. When Elisa works in the garden for the second eye-tracking session, she follows a particular order, which makes the task

> *"very predictable and very calming, because I know that then and then, I'll do that and that, and I take a break to do the floor because it just irritates me, then it's ok, if I make sure to continue with the same order afterward."*

Simultaneously, many compulsive interactions recur with particular routine engagement with the world. Whilst routines and habits can be regarded a stabilisation of bodily performativity in themselves (Seamon 1980), they cannot be understood as a thoughtless performance (Bissell 2011). Indeed, the data demonstrates that habits, routines and compulsive interactions are strongly entangled, and even seem to become indistinguishable. During the observation, Bill explained that brushing his teeth in the morning is so highly routinized, he feels unable to alter it, and becomes easily distressed when household members do something, such as forget to charge the electric toothbrush, which requires him to adjust his routine. Also, before taking a sip from a glass, he pinched the sides of the glass twice, and squeezed it before putting it down. This and other elaborate compulsive interactions that have a seemingly habitual element to them required him to take his time, but upon asked if he cannot do them in advance, his response is negative. As such, compulsive interactions resonate a highly situational emergence that could only be an element shared with habits as Grosz (2013, pp. 217) understands them as: "modes of encounter materiality and life". As such, compulsive interactions and the conceptual 'effort' of their configurational powers subscribe to or be considered a kind of more vital, creative and futural understanding of habits (e.g. Bergson 1911; Deleuze 1991; Ravaisson 2009; Dewsbury and Bissell 2014).

The entanglement is also notable with Bill and others who argue that certain compulsive interactions seemingly *have* to be performed *before* non-compulsive

interactions. Almost every time Tomos engages in a non-compulsive task that required him to use his hands, he rubbed his face beforehand; for instance before starting his laptop and before picking up his cutlery to eat. Whilst these are relatively short and 'easy' compulsive interactions, Mina requires a complex and elaborate series that needs to be exactly right before she can close her eyes and sleep. The first eye-tracking session shows her loosely performing this 4.5 minute "mandatory ritual". If anything would "go wrong", she was required to "start all over again", which included going to the bathroom. Nonetheless, habits can also be a means of breaking the compulsive enlacing and reconfiguring towards non-compulsive life. For instance, before Sara vacuumed upstairs, she looked at the bedside clock until the minute passes. She later explained that she timed her vacuuming to 7 minutes. If she would not count the minutes, she would just have to continue, facing more difficulties to reconfigure to stopping vacuuming. Thus, habits and routines thus seem to be intimately entangled with compulsive interactions, as they support the elongated durations of stabilised situations in a number of ways.

In conclusion, this section demonstrated that negotiation of performing compulsive interactions took place in a spatial manner as well. Places with a low amount of body-object-space compositions, or with enduring ones that do not need re-stabilisation were preferred as well as bodily conditions through which compositions that require attendance are undiscernible or unattainable. This is an addition to engagements with objects (Cowhey 2005; Lawson 2005; Davidson 2010). Furthermore, mapping anticipation of unstable compositions is possible by adopting habitual movements that are enforced and not unthought (Malabou 2009). Compulsivity as spatial phenomenon may also contribute to explaining why 'cluttered' environments require more attention when engaging in an intended practice (see Land et al. 1999; Hayhoe et al. 2003); the potential for becoming reconfigured into compulsions is then very high, and navigating the compositions without having to stabilise, restore, or disrupt any. By returning to Lingis (1996, pp. 14), who argues that "we see not shapes but possibilities" (see also Bergson 1911), it may be possible to see how this formulates the struggle by those struggling with compulsive tendencies. The possibilities for body, object, and space dimensions to form an unstable compulsive composition are then oppressive in the compulsive interactions they evoke. The anticipation of compulsive interactions (see Section 4.2.2) then ought to be regarded as navigating the mapping of these possibilities by reducing them.

6.5   CHAPTER CONCLUSIONS

This thesis aims to understand how bodily environments can affect compulsive interactions, how this affects negotiations, and if this phenomenon has further implications for our understanding of person-place relations. This chapter has developed compulsive interactions on their spatial effects beyond the engagement itself. Reflecting these effects back onto the place of compulsions in spatial processes, I demonstrated how they seemed to fulfil a function of mediating extracorporeal forces working on the body. Underpinned by the three sensory phenomena (i.e. urges, not just-right feelings, and heightened sensitivity), compulsive interactions can be understood through ecologies of stabilization that articulate the formation of compulsive configurations between bodies, objects, and spaces.

Compulsive interactions become a response to an ever-changing ecology or patchwork of different kinds of intensities and with differing durations, produced by a co-emergence of the materialities and sensibilities. As such, they articulate the particularity of the situation, despite, or better, *in lieu of* similarities of the bodily, object and space configuration. This renders compulsivity as a disposition of the corporeal enlacing and simultaneous violence to retain a sense of corporeal unity. Compulsive interactions can then be understood as confirmation of the fleshiness and presence of the body in relation to the materiality of the extracorporeal element. Simultaneously, they can be understood as slippage from human governance and rupture from the body's assumed *raison d'etre*; its sustenance of life – biological, cultural, social. Compulsive interactions name the ecologies of intensities that enmesh situations of the human and nonhuman attuning to a plane of consistency with affects that meet and explode in a multiplicity, reverberating through the human body.

With this meshwork ecology of potentially violent body-object-space compositions that reign the body into interacting compulsively, this study has developed an embodied geography that sustains and challenges certain spatial concepts. Whilst the compulsions arise with the formation of subjectivities that *involve* the body, they do not seem to *centre* it, such as is invoked in geographies of life world (e.g. Tuan 1974, Relph 1976; Seamon 1980; Buttimer and Seamon 1980). Indeed, with moving through the landscape consisting of these different compositions of object and space dimensions that are perceived to resonate with each other (see Harman 2002; Ihde 2009; Ash 2015). Subjectification processes are then asymmetrical as subjectivity boundaries 'stick' to the boundaries of the configurations (see Dewsbury 2007; Romanillos 2008; Wylie 2009; 2010).

The body navigates becoming part of body-object-space compositions – through which they configure into a compulsive interaction – and unbecoming part of them, which often means becoming part of one or multiple other compositions, depending on the environment. Therefore, compulsivity challenges accounts of human-world relations that striate the world in accordance with the human. Instead, this study suggests that compulsivity as spatial phenomenon demonstrates how humans are intimately related to the world but do not dominate the interactions with it. Rather, for people with strong compulsive tendencies, this might be quite the contrary; they seem to live in a world of which its composites incessantly tear them away from intended tasks.

This re-imagines compulsivity as a multiplicity of ecologically situated compositions of body-object-space configurations that move with the body and become more and less intense with the perception of situation *as such*. The body with compulsive sensibilities can then be envisioned to be drawn into compulsive interactions to instate, restore, or not disturb these compositions. Therefore, compulsivity might be regarded as a formative and organisational force that does not quite belong to the human or the nonhuman, but rather 'locates' in between. It can be conceived to emit from volatile body-object-world configurations and 'move' humans through the flesh (Wylie 2006; Hoel and Carusi 2015), and constitute a pre-modal understanding of time and space (Lingis 2000; Massumi 2002; Anderson and Harrison 2010; Matthen 2014). The next chapter concludes the thesis by providing answers to the research questions on the basis of the analysis and the literature review, it reflects on the methodology, elaborates on the overall contributions of the study to the bodies of work it draws on, and suggests ways to take the implications of the study forward in future research.

CHAPTER 7   CONCLUSIONS

WE KNOW NOTHING ABOUT A BODY UNTIL WE KNOW WHAT IT CAN DO, IN
OTHER WORDS, WHAT ITS AFFECTS ARE, HOW THEY CAN OR CANNOT ENTER
INTO COMPOSITION WITH OTHER AFFECTS, WITH THE AFFECTS OF ANOTHER
BODY, EITHER TO DESTROY THAT BODY OR TO BE DESTROYED BY IT,
EITHER TO EXCHANGE ACTIONS AND PASSIONS WITH IT OR TO JOIN WITH
IT IN COMPOSING A MORE POWERFUL BODY.

DELEUZE AND GUATTARI 2004, P284

Thinking about the compulsive body, as I am writing the conclusions in June 2018, in comparison to how I thought about it 4 years and 3 months ago, made me realise how profoundly my understanding has changed. Interrogating the body and critically destabilising its medical renditions, then rebuilding it as geographical phenomenon has engaged broader debates than I had imagined. This study started off by researching how geography affected compulsive interactions, but it has ended up with researching how compulsive interactions are creative of a geography and how their conceptualisation as a geography of its own kind affects notions at the core of the discipline. As I move to a conclusion, this chapter, firstly, formulates answers to the research questions as they have evolved both reflecting this shift, and embedding it in current considerations in the sub disciplines of cultural, disability and health geography, as well as human geography more broadly (Section 7.1). Secondly, and in line with these answers, the chapter considers the methodological implications and contributions of the study (Section 7.2). Thirdly, it makes explicit how these answers and methodological implications contribute to the development of broader debates within human geography, as well as to the medical and clinical sciences of Tourette syndrome (Section 7.3). Lastly, it considers how the findings of this study could be consolidated further in research that benefits those suffering from compulsions (Section 7.4).

7.1   ANSWERING THE RESEARCH QUESTIONS

7.1.1   Research Question 1

How are compulsive interactions, performed by people with a Tourette syndrome diagnosis, affected by the bodily environment?

It is important to acknowledge that this research question suggests that it is the human performing the interactions. Indeed, this is more reflective of the initial medical and clinical perspectives taken on compulsions than the co-constituted performance ultimately identified by this study. The latter identification, as argued in Chapters 4, 5, and 6, refutes the position that compulsions are solely attributable to the human. Rather than reducing compulsivity to *only* a dysfunctionality of the neural system, as neurological sciences do, or understanding it *only* in terms of cognition, as psychological sciences do, this study demonstrates that the nonhuman contributes to the performance of compulsions in unprecedented ways. This reconceives the ontological position of neural processes in the constitution of compulsions as *conditional*, in the sense that these might set the human up for compulsive engagement, but not as *determinative* in how they take place. Indeed, the compulsive interactions that are part of this study show how their performance implicates a specific involvement of the non-human. This does not suggest an attribution of consciousness or wilfulness to nonhumans (see Bennett 2001), but it does imply the active role of objects and spaces through their dimensions that articulate in their encounter with the human in that particular situation. Thus, instead of understanding the bodily environment as simply affecting compulsive interactions, it needs to be conceived as formative part of the constitution of compulsions.

This thesis has identified that compulsive interactions performed by people with a Tourette syndrome diagnosis are performed in a myriad of ways. The categories of touching, ordering, balancing and symmetry behaviour formulated by clinical research (e.g. Worbe et al. 2010) have been found to be reductive to the extent that they remained unproductive in clinical research as well as professional aid to those in need. However, the richer and strongly detailed conception this study has produced has helped to unveil the intricacies of compulsive interactions to an extent that they can be theorized beyond clinical categories. What had been constituted as *categories* should rather be understood as denoting *aspects* of compulsions, which

troubles the simplistic and reductive character of compulsions evoked by such categories. Having rendered them performative, this study demonstrates the wide variety, and effects of compulsive engagement. Both on the level of the individual person performing the acts, and in the kind of compulsion, the research findings indicate how the performativity of compulsive body-world interactions ensures a perseverance or reinstatement of a *stability*. Such stabilisations situate in consciously pressing bodily flesh in the hard, round, sharp, ribbed, hot articulations of object matter, in the affirmation of certain shared dimensions across object matter and body matter through aligning them, or in moving body parts and/or objects in accordance with other materiality.

To understand how the stabilisation of the organisation of bodies, objects, and spaces takes place, the study thus suggests that the particular involvement of nonhumans ought to be identified and analysed. The study found that compulsive interactions cannot necessarily be grasped through analysing the functionality, materiality, or aesthetics of objects and spaces. Indeed, the grounds on which elements of objects and spaces affirm their involvement becomes clear only with the unfolding of the interaction, as these cannot be indicated before the act, and very often also cannot be rationalised after the act (Dalley et al. 2011). Only through the unfolding it becomes clear that objects, spaces, and bodies *share dimensions* that had become volatile and required engagement.

This thesis has also identified that the engagement of the body, objects, and spaces in compulsions can be conceived as *configurations* with different *durations*. Compulsive body-world interactions can be swift when other-than-compulsive touching and ordering is already taking place. These tend to occur when a person with compulsive tendencies undertakes activities that involve much bodily movement and many objects passing their hands (e.g. Sage putting damp socks on the washing line). Other compulsions can be very complicated and take a longer time because of multiple attempts (e.g. Sara vacuuming her bedroom), a multitude of materials involved (e.g. Ginny repositioning items on her desk), or require a violent interruption of other-than-compulsive activities (e.g. Siôn resituating the cushions in the sofa). Compulsive body-world interactions compose presences in different ways, such as human body parts with objects (e.g. Sara rubbing of small stuffed animals), human bodies with objects (e.g. Ginny handling of the shopping cart), objects with other objects (e.g. Bill's glasses on the cupboard shelf), human bodies with spaces (e.g. Lowri stepping over the 45 degree angle of the room

corner), objects with spaces (e.g. Bill's remote control in the living room), and spaces with spaces (e.g. Elisa's spare bedroom within the remainder of the house). These configurations seem to 'inhabit' distinctive parameters within which bodies, objects, and spaces require a particular composition in order not to require compulsive engagement.

Certain compulsions can be anticipated, as they take place as built into short, unavoidable, and mundane routines, such as walking into or out of a room (e.g. Sage pressing her finger into a series of tips within her reach), where the body and its environment have strongly familiar relations (i.e. one cannot enter a room in another way). Furthermore, compulsive body-world relations tend to develop with a deepening of the material knowledge of the space (e.g. holiday homes gradually invoke more compulsions), which extends into more and less familiar people (e.g. Lowri having to perform less when her unfamiliar neighbour put her to bed), and into familiar movements in less familiar spaces (e.g. Sara driving her scooter over and between lines on the tarmac). In conclusion, compulsive interactions performed by people with a Tourette syndrome diagnosis are not only affected by the bodily environment, they are actively co-constituted by them in a myriad ways, and to a myriad of effects.

7.1.2 Research Question 2

How do people with a Tourette syndrome diagnosis negotiate performing compulsive interactions?

Negotiation of the performance of compulsive interactions takes place in different ways, reflecting different concerns that surface with the compulsions. Whilst medical scientific research has aimed at and developed the grounds for medication affecting the frequency and severity of tics, compulsions have not distinctively been part of effect studies. This study demonstrates that medication does seem to inform the compulsive interactions, as participants like Ginny explain how they feel that everything happens as if behind glass. Such experiences indicate a fundamental disconnection between the body and its constituencies, which, in turn, might reduce potential for compulsions. Clinical psychological research developed the grounds and application for behavioural therapy in which negotiating *having to perform* compulsive interactions is a matter of cognition (CBT), bodily restraint (HRT), or

tolerance of urge discomfort (ERP). Again, whilst such negotiating styles can be very effective for tics, participants like Lowri argue that for compulsive interactions it is less the case. As these therapies are mostly practice-based, the situational aspect, and occasional absence of urges troubles this. Additionally, compulsions can sometimes be indistinguishable from habits (e.g. Bill's tooth brushing routine), be unavoidable (e.g. Lowri not knowing how to drink water 'normally'), or even enjoyable (e.g. Ginny reordering the fruit bowl).

Furthermore, this study suggests that negotiations are mediated through the involvement of other people to make the disruptive effect of compulsions less violent (e.g. Nora telling the choir members to expect certain engagements), as well as asking others to comply with certain stabilities of objects and spaces (e.g. Bill´s organisation of the fridge), and not to move objects or reorganise spaces (e.g. Ginny's reorganisations of the living room). Moreover, objects and spaces can be made to lose the affects when they are rendered untouchable through their ownership being situated with others (e.g. Alan's negotiation of his neighbour's garden shed). Such negotiations of conditions upon which compulsions can take place do not reflect morality to overrule compulsivity; rather, objects and spaces that were not owned by participants could either not grow in familiarity as they could not be interrogated, or were experienced to 'remain indifferent' to the human. Additionally, the diagnosis itself, the medicalised body, and objects were often mobilised as 'wanting' to do compulsive interactions, which became othered, and overruled by the self. In spite of or despite these professional negotiation styles, this study demonstrates how there is a plethora of other ways to negotiate performing compulsive interactions that have a profoundly geographical expression.

This study shows how the spatiality of compulsive interactions is actively used in their negotiation. One of the ways in which spatial performativity articulates is through the way the body is brought into contact with the extracorporeal during compulsions. These negotiations mainly rely on devising changes to the urge sensation, as their increase or decrease would imply a less stringent compulsion. As some compulsive engagements with object dimensions can be harmful to the body, they are often performed up to the point where they are not too painful or damaging, and can be repeated whenever they are not suppressed (e.g. Mina biting down on a razor blade between her molars). Also, when a compulsive interaction takes too much time or requires too much effort, object dimensions are changed to satisfy the urge to the extent that it releases the most uncomfortable tension by putting the

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object in another place, or touching it lightly (e.g. Siôn placing the milk carton elsewhere seven times). Furthermore, on occasions that urges are experienced almost incessantly, as they are not followed up on, compulsive interactions that take least effort, or are known to have the greatest effect in diminishing the urge sensation (e.g. Sage pinching the tips of clothes pegs when picking them up). Therefore, negotiations of compulsive interactions upon unfolding seem to involve a balancing of discomfort with effort in which the spatial constellation of the elements constituting the compulsion is an important aspect that determines effort.

In situations that are *not yet* compulsive, anticipating the potential compulsive interaction became important in the way the body engaged with the violence of the compulsive world. Such anticipation ranged from, for instance, through looking away, or otherwise occupying body parts that would become involved in compulsive interactions (e.g. Sage carrying a tray from the kitchen to the living room, and Nora having a piece of paper between her fingers in her pockets when she leaves her house). Also placing particularly evocative objects out of sight is found to help negotiating being attracted to interact compulsively (e.g. the deep fryer in Sage's kitchen). Perhaps remarkably, obscuring the senses by wearing gloves or sunglasses often has the opposite effect, and would give more rise to a general anxiety about not being able to feel material satisfactorily. Nonetheless, dulling the senses, distracting one's own attention (e.g. wearing headphones in public) was experienced to keep focus on other-than-compulsive activities. Also, wearing clothes that did not retain one's attention was found to help negotiating the effects of compulsions. In addition to these strategies for negotiating the performance of compulsive interactions, many activities are highly routinized, as routines reduce the potential for surprise encounters of objects and spaces.

Other ways in which anticipated compulsive interaction are negotiated entail the organisation of spaces and objects in such a way that they are least likely to require involvement. This takes place through objects being rendered static (e.g. Elisa sticking book covers together by making them wet), objects sharing similarities and can evoke reordering being grouped (e.g. Dylan having a 'toiletry island'), and relations between objects and spaces being measured meticulously and organised in accordance with these measurements (e.g. Elisa having measured the book shelves on a section or the living room wall). Moreover, highly mobile objects can be assigned a 'parameter' in which they are allowed to locate (e.g. Bill has assigned the remote control four places in his living room), and reversely, zones of spaces are

assigned to comprehend such a plethora of smaller items that no system of shared dimensions is dominant over another, which reduces the becoming compulsive of all presences in that zone (e.g. Tomos' pin board of postcards and small, loose and shapeless items).

Such focus on anticipation can only capture an experiential and reflective perspective on compulsive body-world formation, and is therefore limited in its conceptual grasp of compulsive interactions. Nonetheless, the ways in which compulsive interactions are anticipated does indicate the kinds of and the extent to which humans have capacities to relate to compulsivity, and in what ways they understand their body to be part of this. Indeed, using anticipation as a strategy to negate compulsive interactions is limited in its success. Many urges are not experienced, and often compulsions occur without the active reflexive engagement of the human. In other words, some compulsive interactions are only witnessed and never deliberated, whilst some do not even permeate awareness by the human enlaced in them, and are therefore impossible to negotiate. Nonetheless, the possibility of a complete lack of awareness begs the question to what extent compulsive interactions are a sign of a disabled, diagnosable or even suffering body, and to what extent compulsivity is a more prevalent mode of existence. In conclusion, the study provides new insights to the negotiations of compulsive interactions, and in particular, the spatial capacities of bodies, objects, and spaces that are mobilised for them.

7.1.3 Research Question 3

What can be learned about the relations between people and place from compulsive interactions performed with and in negotiation of affective environments?

Compulsive interactions performed with and in negotiation of affective environments demonstrate that relations between people and place can be understood by particular spatial situations of bodies, objects, and spaces. These situations express with materialities and sensibilities on an unprecedented and unwanted basis, rather than meaning, rationality, and predefined purpose. Compulsive body-world interactions seem to articulate distinctive spatialities of bodies, objects and spaces on the basis of shared dimensions. These shared dimensions are found to articulate

with the taking place of particular (routine) activities, sensory perspectives of the human, and capacities of their materiality. With the passing of time and the unfolding of space new sets of dimensions shared across bodies, objects, and spaces become more and less powerful, drawing in the human to affirm them through compulsive interaction. Within systems, it is the affirmation of their shared dimensions that accomplishes a stabilisation *as* and *with* these dimensions. Such stabilisations can be understood as spatial entities that can live prior and after human involvement. These stabilisations differ in their ability to become re-situated or re-placed (e.g. a set of glasses on the shelf in Bill's cupboard), and negotiated, disturbed, and broken up in parts or in their entirety. Others cannot 'move' or appear outside particular activities taking place prior and posterior to this compulsion (e.g. Mina's bed time ritual during which she needs to hear the dry 'click' of the toilet door).

Spatialities of compulsive systems become more and less intensive with their enlaced components configuring differently towards each other. Therefore, in different stages of development, and in co-existence with each other, the human body is surrounded by a 'patchwork' of compulsive spatialities in which the body has become, is becoming or will become enlaced. The compulsive spatialities that make up this patchwork of zones do not just become more or less intensive, but acquire qualities of *attraction* and *repellence* in particular ways. Attraction varies with the ways in which these zones come into being which determines how interactions unfold if the person gives in to the attraction (e.g. a particularly sunny spot in Siôn's living room). These attractive zones can overlap, and they can emerge simultaneously with zones of repellence (e.g. the hot deep fryer in Sage's kitchen). Pure repellence or the inverse absence of attraction could be the ongoing or persistent presence of being touched, or looking into bright light, hearing particular sounds and could reflect the experiences medicalised as heightened sensitivity. This surrounding of the body by the patchwork can invoke a vicinity but is not limited to the immediate sensory 'worlding' of the body. Rather, the patchwork has a relational existence, in which systems require stabilisation or remain unaltered elsewhere (e.g. Elisa's spare bed room needed to be organised in one particular composition). As such, all participants had a collection of systems that required to be in place and stabilised at all time, some of which would be situated in relation to the body (e.g. some items in Elisa's bag that she took wherever she went), and some of which would be situated in relation to the materiality of a space (e.g. the position Lowri's sofa vis-à-vis a particular corner of the living room). The co-presence and co-

constitution of systems then shape the experience of the body, objects, and spaces in a compulsive sense that distinguishes from any other sense. In other words, bodies, objects, and spaces acquire another sense of difference through the collections of compulsive systems, on top of concepts such as 'living room', their aesthetics, or through memory.

Compulsive interactions become a response to an ever-changing ecology or patchwork of differing intense durations, produced by a co-emergence of the materialities and sensibilities when residing in a place. These compulsive interactions then become articulations of the particularity of the situation, however many times the same body resides in the same place. This thus produces a tense bodily disposition of potentially 'losing' the body by becoming enlaced in compulsive interactions during other-than-compulsive acts. Additionally, compulsive interactions can be understood as both a confirmation of the fleshiness and presence of the body in relation to the materiality of the extracorporeal element, and its slippage from belonging or rupture from its assumed *raison d'etre*; its sustenance of life – biological, cultural, social. Compulsive interactions name the ecologies of intensities that enmesh situations of the human and nonhuman, attuning to a plain of consistency with affects that meet, and explode in a multiplicity, reverberating through the human body. Such meetings are felt as the urge; an explosion of orgasmic immediacy as a compulsive interaction emerges.

Thus, this thesis suggests that compulsivity implicates a new order that articulates *with* instead of *from* the human, in which it sidesteps the symbolism with which we know our world, and with which geography analyses human/non-human world formation. As such, they can be thought to run in parallel. Compulsive body-world formation might then be regarded as a new kind of undercurrent that supports, sustains and sets the conditions upon which symbolic life takes place. These currents are in constant mutual affirmation; when the compulsive current is well adjusted to the symbolic one, all presences converge and people thrive (after Anderson 2012). In these situations, the world is experienced to not vibrate and objects remain 'still', as Ginny argued. In situations where the currents are maladapted to each other the human might experience to fall still (e.g. when Dylan cannot do anything he wants to do and lays on his bed room floor), and objects vibrate (e.g. Ginny's experience of produce on supermarket shelves). In terms of suffering caused, such experiences could be regarded as aligned with not quite knowing what rooms mean in ASDs (Davidson 2010; Davidson and Henderson

2010), being unable to locate the self in delusions (Parr 1999) and mania (Chouinard 2012), and where bodily boundaries dissolve in anxiety disorders, such as OCD (Segrott and Doel 2004) and agoraphobia (Davidson 2000a 2000b 2007; Callard 2006), and not feeling 'safe' in a space (Coyle 2004, pp. 62). Compulsive interactions are then ways to make the currents align; they are emergent from the situation where the currents increasingly become problematic, which is felt by the human as the urge. The compulsive interactions that follow are then restorative of the maladapted currents. Whilst compulsions can be deeply uncomfortable engagements, they can also be enjoyable, because the new post-compulsion situation allows one to thrive more. The affirmation in itself can then also be enjoyable (e.g. Elisa's organisation of the books and bookshelves in her living room, as well as her back garden). In conclusion, compulsivity can be conceived of as ordering principle of bodies, objects, and spaces in a number of ways.

7.2   REFLECTION ON, CONTRIBUTIONS TO AND LIMITATIONS OF THE METHODOLOGY AND ETHICS

The combination of methods that follow a methodology of the momentary and in situ was able to capture qualitatively different aspects of body-world relations: the experience of the most prudent, memorable aspects of compulsive interactions in the interviews; the ongoing evolvement of the body moving through its environment as grasped from the outside in the observations; and the ongoing evolvement of body's enmeshment with its environment as sensed partially from the body itself in the mobile eye-tracking. It allowed for developing more understanding as to when and with what extracorporeal materialities compulsive interactions took place, and how they disrupted, became part of or took place in between ongoing other-than-compulsive engagements. As such, this study was able to document how particular objects and body parts became involved in compulsive engagements, which formed the basis for a mapping of compulsive body-world engagement that traced the individuality of participants, as well as spaces and objects.

The specificities forthcoming from the study's focus on qualitative difference provided a broader understanding of the intricate and intimate micro-geographies of varying temporalities that emerged with these elements, and through which they articulated an alternative set of relations to their other-than-compulsive sets. It was especially during and after the observations and eye-tracking sessions that these

spatiotemporal intricacies emerged. These two methods helped to epistemologically situate how, when, and where experience related to compulsive body-world formation, and importantly, also how, when, and where not. By extension, this helped situate the interview method in relation to the phenomenon, and identify in what ways incorporating experience into researching a medicalised phenomenon provided valuable insights. Indeed, refraining from interpretation of compulsions in terms of meaning, and instead mobilising experience as 'alternative objectivity' (Blencowe et al. 2015) can be considered to have opened up new possibilities for engagements with experiential knowledges in the medical and clinical sciences

Through the combination of interviews with observations and mobile eye-tracking, this study contributes to ongoing debates about the merit and development of mobile methods (see Anderson 2004; Laurier 2004; Spinney 2009). Whilst Merriman (2013) cautioned for adopting mobile methods on assumptions of a failure of methods such as interviews, this study demonstrates that in studying bodily performances of which human beings are not entirely aware, and/or of which they are uncomfortable speaking, mobile methods that capture the taking place of the phenomenon can be invaluable. Indeed, compulsivity as phenomenon that is performed *with* rather than *by* humans, and happens at a certain distance from other domains of life, proved difficult to pin down in interviews. Discussing the eye-tracking videos as well as narrating their compulsive interactions during the observations not only helped participants express their sensations and rationalities; it also helped to outline what tended to escape their memory, what was "'unspeakable' and 'non-rational(ised)'" (Spinney 2009, pp.826) on which interviews are based. Additionally, witnessing and at times performing the compulsive interactions myself helped to grasp certain sensibilities that were encapsulated in them (see Büscher et al., 2011; Vannini 2015). This study then demonstrates that geographies of compulsive body-world formation can be theorised without signification.

The limitations of the interview method in favour of mobile methods are especially articulated in social scientific research on medicalised performances. Research on these topics often involves people who are used to be invited to express themselves via a medical language, as they are almost exclusively addressed by medical professionals. Nonetheless, as argued in Subsection 3.1.1, participants struggled with expressing compulsive experiences both in medical and everyday vocabularies, which made some encounters rather researcher-led. The eye-tracking method

provided them with more agency in determining the ways in which they were comfortable with demonstrating compulsions. The possibility of asking me to remain in one room and/or not watch the screen, and/or not become confronted with the recordings allowed them to distance themselves from being watched (see also Spinney 2011). As such, this study demonstrates how flexibility with and within the methods helped the research participants navigate their participation. In addition to the latter, the set-up of the research allowed for a pick-and-choose participation, and ended up with most participants engaging in an intense collaboration over the course of weeks, and in most cases months; thus providing a deep insight into the lives of those with a Tourette's diagnosis. Other methods – including quantitative approaches – would not have been able to produce similar intricacies.

The methodology could thus largely capture the embodied, contextual and experiential aspects of compulsions that fundamentally lack in medical scientific and clinical research. Simultaneously, this methodology was sensitive to and helped highlight 'blind spots' in geographical research, created by structural accounts of human/world formation. All methods, but perhaps the mobile eye-tracking most prominently, demonstrated how purposeful activities are riddled with unwanted and unprecedented interactions, and that these are as much part of everyday life (see Beljaars and Anderson, forthcoming). By extension, it demonstrated how such situated but isolated endeavours such as compulsions can have such strong affective resonances with further life and beyond their occurrence. Additionally, the study contributes to diversify the narrative approach currently dominant in disability and health geography. Whilst this approach have proven to be valuable in emphasizing the meaningful aspects of life with a condition (e.g. Davidson 2000; 2010; Davidson and Henderson 2010; Donovan 2014; de Leeuw et al. 2017), they are less effective in capturing the situated experience (Beljaars and Anderson, forthcoming). Indeed, the use of a reflexive haptic videography (Paterson and Glass 2018) would potentially have been better in capturing the material affects and sensory awareness of the data than the written notes I had made during the observations.

In a broader methodological sense, this study addresses human geography's ways of 'knowing' space. It shares Dewsbury's (2003, pp. 1912) reservations for a "need to be attentive to that space before understanding combines with signification that 'everything in the understanding comes from the senses' (Deleuze and Parnet 1987, pp. 54)". This calls into question that spatial understanding necessarily needs to be

derived from predisposed knowledge of a space in order to understand body-world formation. According to Deleuze, spaces cannot only be explained as internalised via the senses, because certain relations are external to the elements in question (e.g. A being smaller than B). According to the remit of such external relations, a priori conceptions of the senses independent from material configurations cannot exclusively be relied on to 'know' spaces. Rather, this study suggests that with compulsivity, spaces articulate in the simultaneous emergence of body and world materialities and sensibilities, and ought to be addressed with a vocabulary that is able to capture these shared dimensions.

7.3 RENDERING GEOGRAPHY COMPULSIVE AND SCIENCES SPATIAL AND EXPERIENTIAL

The kind and outcomes of the study, as well as its methodology, have a number of implications across disciplines, and this section formulates implications for geographical scholarship. Subsection 7.3.1 and 7.3.2 expands on the study's contributions to work adhering to more-than-human and non-representational approaches in the cultural, disability and health geography, as well as the broader theoretical work these geographical bodies of work draw on. Subsection 7.3.3 identifies contribution to the medical and clinical sciences concerned with Tourette syndrome this study draws on.

7.3.1 Contributions to other-than-compulsive geographies

Compulsivity can be understood as a new way of unveiling body-world relations in which urgency and a lack of quality, as opposed to deliberation, purpose and meaning mobilise human-world engagement. This study puts in perspective how geography has understood and conceptualised the human in the spatialities of its world, by demonstrating the empirical and conceptual gaps of embodied human geographies. The conceptual gap in particular articulates the strong influence of liberal humanism, which constitutes a person as an economical, rational, and purposive figure (Bridge 2000; Stark 2016). As such, this study demonstrates that whilst humans might assumed to be in incessant pursuit of meaningful life, in the embodiment of the world such pursuit does not always manifest. Rather, such rethinking of human engagement with the world supports the political project of the geographical subdiscipline of emotional geographies. Despite a lack of a meaningful

dimension, compulsive interactions are aspects of life that may be unspeakable (Bondi et al. 2005; Thien 2005; Harrison 2007), but express through violently resonating with the situated self as experienced turbulence (see Serres 1995; Anderson and Wylie 2009).

One of the implications of the study that builds on the conceptualisation of compulsivity is the incitement to make a conceptual distinction between the everyday practices non-representational theories place emphasis on (Thrift 2004; Bondi et al. 2005; Anderson and Harrison 2010; MacPherson 2010; Degnen 2013), and compulsive interactions. Compulsive body-world engagement is markedly different from spatial practices in the sense that practices cast an overall goal onto the body-world formation (see Bondi et al. 2005; MacPherson 2010; Schatzki 2010; Degnen 2013), whilst compulsive interactions are experienced as entirely goalless, or at most, serve the goal to reduce the urge sensation. Arguably, it is the casting of the practice concept over all body-world interactions that have rendered compulsions invisible, as they become reified as sustenance of these practices, or are left out of more-than-representational geographical analysis entirely (Harrison 2009). As such, the body-world interactions that are made to sustain these practices lose their status as existing in their own right and on their own terms. For instance, Bill choosing a parking spot when arriving back home becomes part of a 'commuting' practice (after Schatzki 2010), which obscures the immediacy and affective resonances of the parking act itself. Whilst such an act can be attributed to nearness to the house, it can also reflect feeling compelled to close the last gap in a row, as Bill contended, to keep a rhythm of free and occupied spots or red and grey cars going, or to make the particular turn circle associated with this particular spot. In turn, this provides reasons for considering spatialities of the body on other than purposive and meaningful terms.

Apprehending compulsive 'unthought' acts (after Dewsbury 2003) as creative of geographies provides a richer and more encompassing understanding of body-world formation than as only rendered through practices or other more structural concepts. Indeed, taking seriously acts, such as compulsions, that do not articulate goals, purpose, and meaning very well, and even preclude sense-making processes, may shape the conditions upon which practices take place and how life is experienced more broadly. In embedding compulsive body-world formation, similarities have been drawn with habits; for example, could compulsivity be a *style* of habit? This study makes the claim that although compulsions are related to habits in the sense

that the body becomes involved with the world in an undeliberate way (Malabou 2008), they cannot be regarded as habits. Unlike habit, compulsive interactions cannot be located within the body-memory (De Certeau 1988) as they are co-emergent with the *appearance* of extracorporeal materiality (Bissell 2011). Furthermore, because of the urge evoking compulsive interactions, they often demand attention and take place in full awareness of the person at its unfolding, which is unlike habits (Carlisle 2006). These distinctions between compulsions and habit then helps to develop both the concept of habit and compulsivity.

The results of this study indicate new ways to take the extracorporeal more-than-human serious in an ontologically inclusive manner. The ways in which objects through their dimensions play active roles in compulsive interactions, and are creative of spatialities that articulate their materiality and their resonance with human sensibility, contributes to the development of object-oriented ontologies (see Harman 2002; Ihde 2009; 2012; Ash 2015; 2017). Such theories seek to understand and map the more-than-human through the ways in which their affects reverberate with and articulate through the human. In line with this, the study also furthers Anderson and Wylie's (2009, pp. 332 emphasis original) project to identify different ways geography explores how materiality "becomes a question posed: simultaneously, a provocation, incitement, enigma, and promise (Grosz 2001)". The spatiality of the compulsive phenomenon then further blurs the conceptual distinctions between the human and the more-than-human, thereby reframing how they meet and affect the other. To this end, considering compulsive body-world relations offers opportunities to reframe the development of speculative realism within geography (based on Harman 2005; Morton 2007; Meillassoux 2008; Bennett 2010). In particular, in its employment as spatial ordering principle compulsivity may contribute to further embedding spatial processes of perception through postphenomenological thought in geography (e.g. Simpson 2009; Wylie 2006; 2009; Anderson 2010; Dawney 2013; Brigstocke and Noorani 2016; Ash et al. 2018).

Compulsivity as developed in this study could be regarded to mark one of the most poignant accounts of lively environments with distinctive, ongoing articulation of the choreography in which the body takes part. Indeed, this study sees objects claiming a sociality, body parts rendered flesh, and intentionality becoming dislocated from the human, and rationality emerging from within the interaction, and seizing any bearing beyond it. As such, the reconceptualization of body-world formation on compulsive terms expands the constitution of the experiential field (see Lea 2009;

Wylie 2009; Ash 2015). By extension, in conjunction with 'compulsive writers' Joseph Bliss (1980), Michael Kane (1994) and Lance Turtle (Turtle and Robertson 2008), this study suggests that the conditions upon which subjectivity forms requires rethinking in order to account for the object and space dimensions with which compulsivity articulates. The study therefore sustains and contributes to ongoing calls to refrain from assuming an already constituted subject (see Dewsbury 2007; Romanillos 2008). Compulsivity should be conceived of as a subjectification process *with* the body (see Lingis 2000), upon which new meanings, nonhuman affects, and rationalities may take place. As such, compulsivity can be considered to highlight certain conditions upon which spaces and objects are experienced and engaged with. With this study's identification of the shared dimension between bodies, objects, and spaces, the immanence of the interactions constitute a transcendental compulsive condition.

7.3.2 Contributions to geographies of medicalised performances

Whilst many geographical enquiries into medicalised performances conceive of them through prisms of (dis)ability, (ill)health, impairment, and (ab)normality, this study does not. Rather, it builds on and seeks to contribute to geographies of disability and health by sustaining research that regards the mobilisation of such prisms as *choice* (e.g. Latimer and Schillmeier 2009; MacPherson 2010). This is not to say that this study is not concerned with suffering, or unwilling to grasp the disabling aspects of compulsivity; it is conscious of and sensitive to the ways in which such suffering is constructed (after Schillmeier 2010). This study demonstrates how such prisms do not *necessarily* need mobilising in order to conceive of spatial conditions for suffering by having taken more vitalist approach (Beljaars, under review). In line with Segrott and Doel (2004), this thesis demonstrates that engaging with medicalised conditions on performative, rather than psychoanalytical, terms raises different questions about geography's contribution to understanding life with one. Indeed, the employment of an ontology of the situated interactions, rather than only the effects of these interactions articulate situational conceptions of suffering and disablement.

To reflect its ontological distribution expanding from the body to include the extracorporeal, this thesis demonstrates that compulsivity should be re-considered as a *more-than-human condition* to reflect its ontological focus (see Beljaars, under

review). This supports similar efforts in Science and Technology studies (STS) (see e.g. Mol, 2002; Law 2004; Latour, 2005; Latimer and Miele 2013) As this study renders suffering and disability mobile and emerging with the embodied situation, it employs those affected as inherently abled, which might be a more empathetic point of departure to study human conditions (see Hall and Wilton 2017). Such re-conception then also requires an expansion of the normative ontology from situated between different humans bodies to between human bodies and their nonhuman environment. The renewed ethical appreciation that such a shift entails (see Coyle 2006), then also raises political questions about ownership and governmentality of the condition and moral responsibility over the act. Instead of situating all ownership with the person performing the act, it would take away any ground for stigma as this targets *people*, not *acts*. Indeed, any blame that is now casted onto the human, would then become diffused over the situation. This acknowledges the powerlessness of the experience of having to perform compulsive acts that feel humiliating in any way, shape or form. As such, reconceiving compulsivity as more-than-human condition requires the reframing of ongoing debates on the location of stigma and shame (e.g. Woods 2017).

To date, geographical research with an interest in medicalised conditions takes a diagnosis or a symptom group as point of departure, and this study challenges the necessity to do this. It demonstrates that diagnoses are concepts that do not necessarily require mobilisation as analytical tool in geographical research (Beljaars, in review). Instead, they impose a rigid structure that might impede the impact of a geographical exploration of lived experiences of medicalised performances. In effect, such approaches produce geographies of a diagnosis or symptom group. Body-world interaction that produces suffering as unmediated through the diagnosis could amount to an interactional geography that stretches across diagnostic boundaries. This research then produces a compulsive geography that stretches TS, OCD, and potentially ASDs, ADHD, Schizophrenia, and anxiety disorders. Contending that such approach does not implicate a loss of possibility for cross-fertilisation between geography and medical disciplines, the study claims that vital geographical conceptions can augment medical and clinical sciences. This expands the ways in which disability and health geography provide critical reflections on psychiatric orderings of bodies and conditions. Building on and sustaining earlier activist work (e.g. Parr 2002; Chouinard et al. 2010; Colls 2012) this study produces a mapping of suffering that is emergent, rich, and dynamic, rather than fixated, bound to bodies, objects, and spaces. The study demonstrates that this approach

helps conceive how diagnoses themselves articulate in the realms of everyday life, and what ethical issues this produces (see Callard 2014).

If we can accept a new branch of geographical research that ontologically centres medicalised interactions instead of diagnoses, new possibilities open up for researching not just how performances are shared amongst different diagnoses, but also to a wider humanity beyond pathology (i.e. what is considered to be a 'subclinical population'). Indeed, Cath et al. (2001, pp.181), demonstrate how 'normal' populations also "exhibit the whole range of repetitive phenomenology performed by GTS and OCD patients, and only differ *quantitatively* from them" (emphasis added, see also; Rachman and De Silva 1978; Salkovskis and Harrison 1984; Kurlan 1994; Muris et al. 1997). In line with the 'psychological model of mental illness' (Freeman and Freeman 2013) Szatmari (2004) argues that performances captured as symptoms occur along a continuum (also see Williams 2005). To varying extents, all human bodies would thus have capacities to compulsively interact with particular situations and experience the urge to do so. As such, *compulsive geographies* would render visible the tiny in-between acts that people 'catch themselves doing', such as stepping on the middle of the flagstones in the pavement. Such interactions often fail to last a memory, but can be useful and enjoyable (Goldman 2012). For instance, fidgeting is suggested to sustain bodily negotiations of stressful situations (Farley et al. 2013). Rendering these acts compulsive would actualise "the inherent and continuous susceptibility of corporeal life to the unchosen and unforeseen" (Harrison 2008, pp. 427).

7.3.3 Contributions to medical and clinical sciences

The study contributes to medical and clinical sciences by unsettling rigid structures in which urge-driven compulsivity has been located. As raised in the previous section and in Section 2.1, the adherence of the conceptualisation of compulsivity through diagnoses is problematic and reductive, as its conceptualisation through rational prisms and linear causal logic is reductive to such an extent that it may even omit the development of a richer understanding of them (see Pilgrim 2007; 2013 and Callard 2014 for more general arguments). This study demonstrates how with a particular recruitment technique these diagnostic barriers can be circumvented, and help soften the sharp delineations between pathologies (after Bankey 2004 on agoraphobia). Furthermore, the positivist rejection of the experiential and situational

as valid knowledge for medical conceptualisations of compulsions largely leaves unanswered why they take place in the way they do, and why they take place in particular situations (after Pykett 2017). This study takes up Peterson and Leckman's (1998) emphasis of the importance of recognising that compulsive urge and interactions do not occur incessantly. Indeed, this study demonstrates that the *changing affective situation of the body* seems to instigate the process. As such, it opens up possibilities to consider compulsivity as conceptualised beyond the brain (after Davies 2016).

Arguing that a performative approach can augment medical and clinical research into compulsivity, the study produces a much richer account of the life worlds of those whose lives are affected by it. This section elaborates on the ways in which this augmentation takes place. The outcomes of the study attest that the experiential dimension of compulsivity contributes crucial insights into what sensations and situations constitute the compulsions. Experiences allow for pinpointing the grounds on which the frequency and intensity of compulsivity differentiates over time, space, mood, activities, and social situations, (see Turtle and Robertson 2008). Additionally, the experiential dimension of compulsive interactions locates how, what kind, and where reflection of compulsions situate epistemologically. The study demonstrates that when prompted to explain their compulsions, more often than not, participants could not elaborate, or express them in accordance with other-than-compulsive life. This supports claims that there are very few reasons for compulsions to benefit from psychoanalysis (Kushner 1999), but that this does not mean that experience is not valuable. Such argumentation could be used to silence those affected, and sustain claims that compulsivity is an affliction of the brain *only* (see Davies 2016; Pykett 2017 for the concerns such claims raise). The experiential geographical appreciation of compulsivity challenges the constitution and persistence of rationality, intentionality, and objectivity that clinical psychology claims compulsivity to emerge from.

This study demonstrates that an epistemological sensitivity to the experience of compulsivity also helps visualising how knowledge of compulsions and bodily tics is partial in its decontextualized and disembodied approach. As current research and treatment of compulsivity renders the embodied situation static, and of snapshot duration in the laboratory circumstances of doctor's offices, therapy rooms and hospital chambers, it lacks knowledge of the phenomenon in other circumstances. This study articulates the difference with bodies being mobile in the familiar spaces

of the home, classroom or workplace, aligning better with what Turtle (in Turtle and Robertson 2008, pp. 451) asserts as the "truly chaotic nature" of his experiences. This 'truly chaotic nature' is explicitly reflected in the strong differences of motor and vocal tic occurrence during activities (O'Connor et al. 2003) as well as different places (Goetz et al. 2001), and could be taken forward with the insights of this thesis. Additionally, the embodied, contextualised and experiential aspects of this study offer the opportunity to start of the development of a new vocabulary that better reflects the experience of compulsivity outside medical and clinical narratives of the 'faulty' brain.

7.4   MOVING FORWARD: A RESEARCH AGENDA

Rendering compulsivity beyond the brain escapes its conceptualisation by medical scientific epistemology (Beljaars and Anderson forthcoming; Hall and Wilton 2017). This study suggests that an ontological expansion, including the bodily environment and experience, might be possible with an epistemology that regards compulsivity as a capacity of the brain rather than a property. In accordance with assemblage theory that can be used as analytical tool (DeLanda 2006), compulsivity could be rendered present and absent when particular neural and environmental forces emerge with each other to create a compulsive situation. Such an approach could also help demystify the rebound phenomenon – an outburst of bodily tics and compulsions after a period of suppression or incapacity to perform them – whose existence is avidly advocated by those afflicted (see Verdellen et al. 2007), but cannot be captured with clinical methodologies. By extension, if such an approach would help broaden insights into the condition that better aligns the interests of those affected, medical and clinical scientists and social scientists, similar conditions could also be studied in this manner[41]. This would also carve out a specific role for geography in the enquiries that conventionally has been associated with neurosciences (Pykett 2017; 2016; Gagen 2006; 2015; Davies 2016; Whitehead 2016) and theories of the mind (Powell et al. 2018). Whilst for compulsivity such thinking might be new, neurosciences have been encouraged to consider system analyses. Currently gaining popularity is, for instance, 'enactivism', or pluralism which seeks to configure neural elements on their capacities in producing the

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[41] I elaborate on this in "A Worlding of Compulsivity: Rendering knowledge of Tourette syndrome spatial" Worlding the Brain Symposium 2017, Amsterdam

neurological disposition for human conditions (e.g. Gallagher 2017; Glas forthcoming; Noë 2009; Thompson 2007).

A step forward on the basis of this study's conception of compulsivity and its addressing of the medical and clinical sciences could therefore include a continuation of its vitalist approach and its ontological centring of compulsive body-world interactions[42]. In conjunction with an assemblage or enactivist approach, a spatio-temporal approach could align different knowledges. Such approach could be diagrammatic by dotting different dimensions (i.e. brain, psyche, extracorporeal material, spaces, body, the social, the experiential, and the diagnosis) along a temporal line, and mapping them in relation to the location of the urge and interaction. Interventions, such as different kinds of medication, behavioural therapies, psycho-education, and geographical recommendations (see Appendix 2), could then be distinguished along these diagrams. An explicit collaborative involvement of people who are affected by compulsivity is not only required in this exercise, it emancipates their political position in research on human – or indeed, more-than-human – conditions (after Callard and Fitzgerald 2015). Understanding and situating experience as a leading source of knowledge, and not one for mere illustration of scientific or clinical knowledge would grant a much needed voice of the people experiencing compulsivity in how it is studied and treated.

In summary, this thesis demonstrates that compulsive interactions should not be regarded as articulations and negotiations of a malfunctioning brain, but as expressive of the bodily situation amongst objects in spaces. Focusing on the performativity and experience of compulsivity, the thesis raises new questions about the study of medicalised performances in geography, as well as the contribution of geography to the study of medicalised phenomena. In addition, this thesis develops new understanding of, and engagement with, human suffering and thriving, through the intricate spatialities of the body on other than purposive, rational and meaningful terms. In amplifying new voices in geographical research in innovative ways, this participative research hopes to raise awareness and build capacity for those diagnosed with Tourette syndrome, and affected by compulsivity more broadly.

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[42] I elaborate on this in "A Vitalist Ethics and Spatial Imagination of Compulsivity?" Inaugural Northern Network for Medical Humanities Research Congress 2017, Durham

APPENDICES

APPENDIX 1 EYE-TRACKING RECORDING STILLS

These collection demonstrates a number of different compulsive interactions performed by different participants. The red dots represent the locations of the participants' gaze.
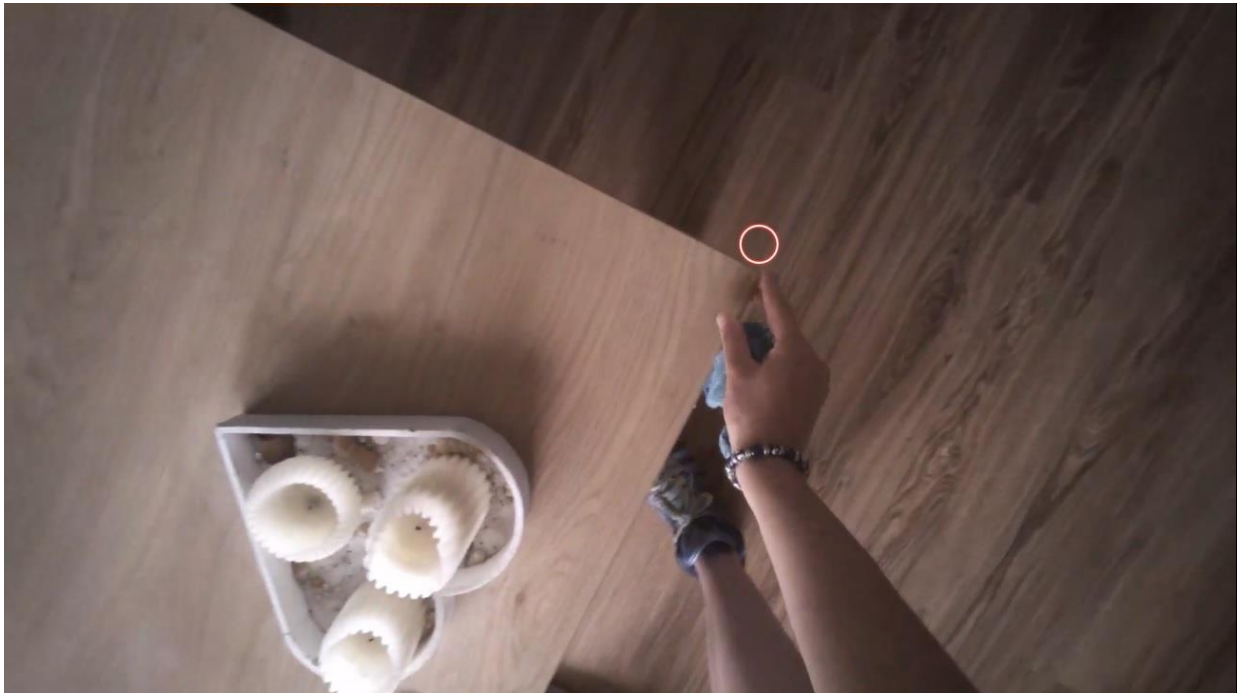

Figure 8: Compulsive touching of a table corner with Sage

Figure 9: The shed of Alan's neighbour that is not-just-right

Figure 10: compulsive ordering of a statue on the windowsill with Ginny

Figure 11: A just-right composition of leaves for Alan

Figure 12: An overwhelming object collection for Ginny. She experiences everything to vibrate

APPENDIX 2   PRACTICAL RECOMMENDATIONS: CAPACITY BUILDING

On the basis of the analysis, this short piece develops short-term and immediately implementable considerations on the basis of the outcomes of the study. From the analysis of recurring compulsive interactions and the compositions upon which they take place, a number of recommendations can be made. These recommendations have been formulated on the basis of cross-participant, cross-object, and cross-space occurrence. Nonetheless, the study demonstrates that these recommendations might not work for everyone, at all times, and in the similar ways. The study recognises that those experiencing compulsivity as part of their daily life have far greater and deeper knowledge about situational effects, which this list does not claim any expertise over. Therefore, the following list should be taken as nothing more than a potential guideline when in need.

For the purpose of retaining a restorative element in one's house or room(s):
- Stop entities from moving by putting the same kinds of products/objects in close vicinity.
- Stabilise compulsive systems by making them immovable, or only movable in their entirety (no loose objects).
- Add natural elements, such as plants.
- Keep small items out of sight.
- If possible, have the corners of large surfaces, such as walls, rounded off.
- Have flat surfaces, such as paintings without small ridges and bumps sticking out that create a relief.
- Don't choose carpet/flooring with lines or marble patterns on them. Choose monochrome or gradual colour change.
- No small dynamic details like fringes on a carpet or chair or any element that is within reach.
- Assign areas and objects to the ownership of other people.
- Group objects with strongly vertical or horizontal appearance (in a line to prohibit overlap would be best).
- Ask another person to accompany one to get through activities that take up to much time to reduce the amount of compulsions that need performing.
- Keep routines because of anticipation for encountering spaces and objects. More detailed knowledge also helps to recognise when certain objects and spaces can become demanding. However, with routines detailed knowledge builds up, and with detailed knowledge, new compulsions take shape.

- Be aware that it is as much part of one as it is of one's environment, one does not need to own it, or think one needs to be able to govern it in the ways other-than-compulsive life often requires of us.

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