Converging Human and Digital Bodies

Posthumanism, Property, Law

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Juridiska institutionens skriftserie
Handelshögskolan vid Göteborgs universitet

Skrift 023
2017

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© Jannice Käll, Göteborg 2017 ISBN: 978-91-87869-07-5

Cover: Jeffrey Johns

Print: Ineko AB, Göteborg, Sweden.

Acknowledgments

The text, which here is presented as my doctoral thesis in legal theory, has been part of my life for many years now. Throughout this time, the text as well as I, have grown in the company of many others. I am very grateful to all of you who have shaped and reshaped me as well as the text in ways that I could never have imagined when I threw myself in to the wondrous world of writing a thesis.

First of all, a very warm thank you to my main supervisor, professor Ulf Petrusson, whose continuous support and vast knowledge about innovation, property law, as well as theory, has been essential to me during the entire process. Professor Eva-Maria Svensson has functioned as my co-supervisor and has been equally vital to making me finish this text in the direction I saw fit. Her special eye for structure as well as deep commitment to critical legal theory provided support at times where I needed it the most.

Furthermore, without doctor Merima Bruncevic, this book would never have been written. For good and bad, long discussions on assemblages, affects, spinozism in general, as well as the ins and outs of intellectual property theory (or the lack thereof) has sustained this text, as well as our many trips around Europe, in the everlasting search for new materialisms and law. Kristina Hultegård, PhD candidate in legal theory, has furthermore engaged in extensive reading and proofreading of the text, as well as irreplaceable friendship, inspiration and support. I look forward to thinking-together, and togetherness, much more with both of you in the future.

Many others have also been formative in how this text has come to shape. The readers on my many seminars- both formal and informal- deserve very special thanks. Doctor Susanna Lindroos-Hovinheimo and professor Håkan Gustafsson read the manuscript at my final seminar and gave immensely valuable comments when I deeply needed them. My readers and committee in relation to my licentiate thesis seminar: doctor

Kristoffer Schollin, doctor Johan Jakobsson, doctor Mats Glavå and professor Juha Karhu, also gave valuable input as regards to the way forward. I would also like to thank doctor Jens Andreasson who functioned as my co-supervisor up until the licentiate degree and gave very valuable input in relation to general civil law.

I have furthermore had the privilege to participate in many conferences and workshops during the years, which all have had great impact on the text. Many thanks particularly to professor Andreas-Philippopoulos-Mihalopoulos, professor Fiona Macmillan, professor Patrick Hanafin, and professor Martti Koskenniemi, who during some of these workshops all gave very sound advice for how to advance the PhD project. Also many thanks to all who have listened to, and commented on my presentations at: the yearly conferences in critical legal theory in Wroclaw, Poland (2015) and Kent, UK (2016); the conference in gender & law theory in Umeå, Sweden (2015); the ICON-S conference in Berlin, Germany (2016); the Swedish IVR conference, Gothenburg, Sweden (2015); The Persons/Things workshop in Turku, Finland (2016); the yearly PhD candidate Marstrand seminar, at Marstrand, Sweden (2013, 2015), the workshop for PhD Candidates in Law and Society in the Nordic countries in Lund, Sweden (2016) and more.

I have furthermore very much enjoyed the vibrant community that is the PhD candidate group at the department of law in Gothenburg. With so many persons focused on law and societal change, the discussions over these years have been both engaging and challenging at times. Thank you Mikael Bernadini, Erik Björling, Kristina Hultegård David Jivegård, Niels Krabbe, Philip Linné, Annkatrin Meryerson, Tormod Otter Johansen, Otto Swedrup, Sebastian Wejedal, Kristina Wejstål and many others, for bringing these discussions to life. Doctor Anna Wallerman and doctor Anna Warberg have furthermore both been steady friends throughout this entire time (and before). Thank you all!

I would also like to direct a special thanks to the students I have had the joy to meet during the years. It has been a pure pleasure to talk about how to think anew- or rather *again*- about law and society with all of you. I would also direct my warm thanks to everyone at the department of law who has made such education possible. Apart from

persons already mentioned, I would particularly like to thank the head of the department, doctor Thomas Erhag, professor Sara Stendahl, and project manager for social sustainability Karin Björelid, for nourishing this focus in different ways.

Other persons, partly inside or outside of legal research, have also been important in writing this thesis. The most prominent group of people includes those affiliated to the Center for Intellectual Property (CIP) in Gothenburg. Special thanks to Magnus Eriksson and Christoffer Hermansson who both helped me out much in the early years of elaborating this thesis. In a similar manner, also those involved in the Vinnova research group in Open Innovation during the years 2009-2013 deserves a special mention. Jonas Kuschel, Björn Remneland and Anna-Maria Szczepanska all stimulated this project in different ways. Also many thanks to all the persons at the department where I first was admitted as a doctoral candidate: the department of Innovation and Entrepreneurship (IIE), Gothenburg University (now a part of the department of Economy and Society at Gothenburg University). Thank you all for different insights regarding innovation processes in industry as well as the university. Such knowledge has been absolutely fundamental for writing the thesis. Also thank you to Agneta Valleskog and Jenny Andersson for all kinds of administrative assistance and general friendliness during the years at IIE.

When writing the thesis, as well as all the other things that one happens to write and do during the time of a PhD project, I have been very fortunate to have my husband, Daniel, by my side at all times. There is really no way to say thank you for navigating all kinds of twists and turns that a PhD candidate may require from a partner. You managed all those strangeways and more. For this I am forever grateful.

Also many thanks to all of my siblings, and siblings in law, parents, and parents in law, as well as grandparents, for different kinds of services and general support. Of course, also thank you to all of my siblings in kin that have celebrated my writing progress with me on different social media platforms. Fellow cyborg and former administrator at the department of law, Josefin Johansson, deserves a special thanks for her will to struggle even in the fairly gloomy times that we live in.

Finally, thank you to my kids who were both born while pursuing the PhD. Nothing speeds up writing as having one otherwise very secretive child telling their surprised pre-school teachers that his mother is a researcher, and another one asking (more than anyone) when the thesis will be finished. Thank you for that, and much more, Stellan and Boel.

Jannice Käll
Åsa, Sweden
April 2017

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Prologue

We always start from the middle of things... This text is subsequently the result of a number of encounters that have identified a need to pose the very problems and solutions that it does (or does not) provide.

A significant influence comes from the master's program in *Intellectual Capital Management* (ICM) at Gothenburg University and Chalmers University, which I enrolled in during the years of 2007-2009. While taking this program, I had the opportunity to gain deep knowledge in the discourses related to the production, as well as capture of, knowledge as a commodity could be utilized to create capital. Apart from such insights, I was also intensely trained to understand law as a social construction as well as more specifically, a *tool*, which could be utilized to create innovation objects, as well as other structures that sustain innovation practices. This implied that my notion of law as something that occurred only within the courts, or as legislation, was deeply ruptured already in my forth year of legal studies.

Luckily, this understanding of law was not given to me, without a lecture (or quite a few) concerning the more serious implications of utilizing law as a tool to create market value. Thus, I was significantly educated to understand which implication legal reconstruction processes had also in relation to other societal values. When finishing my master's degree in intellectual capital management, I therefore knew how to argue to allow e.g. gene patents (through insights in both biotechnology and law), but also why this would not necessarily always be a good idea. I had also concluded my master's thesis on the topic of digital services in the music industry. Through this encounter, I had started to think more in depth about the specificity of *matter,* as legal constructs continuously appeared to lack the means to hinder circulation of music. As I discussed in that text, this subsequently appeared to lead to difficulties in regulating consumer interests in the manner that they had previously been protected in Swedish law. With background knowledge of the force of business power in this field, I furthermore argued that the legislative force of the nation-state (or any legislative force) lacked force to regulate questions on

the internet. However, inspired by an extra-curricular course in social and legal movements as well as the actual counter-movements of the digital sphere (calling for free-source, piracy...) I argued that a way to counter market power in these spaces was through direct consumer resistance as the companies were in any instance still dependent on the consumers to which they provided music services.

After finalizing the ICM program, I quite immediately embarked on the project that, to an even more intensified degree, became this text. The point of departure for research was embedded in the practical encounter between legal conceptual constructs and the process towards an increased service and innovation focus in the automotive company, Volvo. Volvo, like most companies at that time, had mainly been involved with transactions of what they described as *hard products*. Due to the pressure of innovation in information and communication technologies in the end of the millennium, the company however saw the need to move towards increased connectivity between hard products and digital elements. Such products, that included a larger proportion of digital elements compared to the "hard" products, were subsequently referred to as Soft Products. In parallel, increased linkage between digital and physical elements had already taken place in the telecommunications industry. This arguably occurred first as a form of making the telephone mobile when telephones started to be able to connect to wireless networks. Second this occurred in the manner that *smart* phones had recently been presented as a new object on the market at that time. Both of these movements in the telecom industry were closely watched (as well as to some extent integrated) as a point of reference for the service-oriented processes followed by Volvo.

The telecommunication industry had shown that the interconnection between physical and digital technologies indeed came with new technological, economical, and legal practices. One such prominent practice was framed within the terminology of *Open Innovation*. Open Innovation practices were identified to imply increased collaboration over company boundaries as well as an increased orientation towards services. *Services* were in turn believed to inhabit a larger degree of process orientation compared to (hard) *products* as they

were not fixed in the same way as products, neither in their coming-into-being (through e.g. innovation) nor in their transaction. This perceived adaptability of services was thus coupled with the understanding of Open Innovation as a drive for more dynamic and faster innovation.[1] In order to organize Open Innovation endeavors, legal alternatives other than the ones offered through the *persona ficta* was called for. The contract was suggested to be able to play a much larger role than previously. Notably, contracts had been utilized in the early phases of Open Innovation in telecom through the construction and adaption of telecom standards.[2]

The same turn towards the contract could furthermore be noticed also with regards to the transaction of high-technology "service objects" as it was identified that property concepts linked to high-technology transactions such as patents and copyrights could not necessarily capture entire transactions of intellectual objects.[3]

With such insights as a framework, I asked whether the traditional transaction oriented legal constructs based on dichotomies such as services, sale of goods, copyright and contracts could capture the turn towards high-technology services and Open Innovation-based business models. The inquiry, which resulted in a licentiate thesis,[4] concluded that in a range of cases, it was obvious that established legal conceptual dichotomies did not capture the new kinds of high-technological business models that were emerging in the interface between the physical and digital, or what I then called, "virtual" bodies.[5]

When writing my licentiate thesis, I had also increasingly started to be able to place these market and business practices, within a larger

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[1] Chesbrough, H. *Open Innovation: The new imperative for creating and profiting from technology.*

[2] See e.g Treacy, P., Lawrence, S. *FRANDly fire: are industry standards doing more harm than good?* Journal of Intellectual Property Law & Practice, 2008, Vol. 3, No. 1.

[3] See e.g. Schollin, K. *Digital Rights Management, the New Copyright*, Stockholm: Jure, 2008, and Radin, M.J. *Information Tangibility* in *Economics, Law and Intellectual Property, Seeking Strategies for Research and Teaching in a Developing Field* (Ed.) Granstrand, O. Boston: Springer Science and Business Media, 2003

[4] Käll, J. *Virtuell tjänsteinnovation? Plattformar för information i gränssnittet mellan ICT och automotive.* Licentiate thesis in civil law, department of law, Gothenburg university, 19 June 2014.

[5] I will return to the concept of the body when entering the text. Here, I merely imply to use it as a term for what otherwise could be referred to as 'objects'.

framework of theory, which I first referred to as the commodification of information. I furthermore also placed these insights and the lack of force in legal concepts as generally connected to a post-marxist critique. It was however not until I encountered posthumanist theory, during the fall of 2014, that I started to be able to further make sense of the processes that I had followed since 2007, and probably even longer before that from a more critical perspective. This thesis is the result of this encounter. Through the use of posthumanist theory, it subsequently attempts to make visible the convergences between human and digital bodies in relation to property and law.

PART ONE: INTRODUCTION

We speak of consciousness and its decrees, of the will and its effects, of the thousand ways of moving the body, of dominating the body and the passions – but we do not even know what a body can do.

Deleuze, G. *Spinoza*, *Practical Philosophy,* p. 17-18

1 INTRODUCTION TO THE RESEARCH TOPIC

"More human than human" is our motto.[6]

The advancement of capitalism and technology has currently come to a turning point. This is the point where boundaries between machines and humans are becoming increasingly obscure and potentially even obsolete. This current stage of *advanced capitalism*[7] can subsequently be understood to reproduce itself as a convergence between machinic- and human bodies. Rosi Braidotti expresses this in the manner that:

> "[t]he metaphorical or analogue function that machinery fulfilled in modernity, as an anthropocentric device that imitated embodied human capacities, is replaced today by a more complex political economy that connects bodies to machines more intimately, through simulation and mutual modification."[8]

This thesis will utilize posthumanist theory to make visible such connection between humans and machines from the perspective of digitalization processes and property discourses. The connection is here explored as a convergence between human and digital bodies.

Such convergence between human bodies and digital bodies may be said to have started with something of a humming when computers began to perform tasks of calculation. Almost in parallel, the digital nodes now known as the internet started to become the network for

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[6] Fancher, H. Scott, R. Peoples, D. *Blade Runner* (1982)
[7] Braidotti, R. *The Posthuman*, Camebridge: Polity Press, 2013, p. 7.
[8] Braidotti, R. Ibid. p. 89-90.

communication, which today interfaces with a vast number of humans. Technology-enhanced persons could suddenly reach each other over global digital networks. The sounds became louder: phones imbued in digital technology became smart and androids started to raise their voices and ask if they could be of any help. And in the current stage of society, the pitches are even higher: monsters roam the streets and the machinic representatives of modernity, the cars, are becoming independent, or at least "autonomous" or "smart".

These developments all point at a transformation of what capacities that technologies may have. Simultaneously, such change subsequently also challenge the exclusivity of intelligence and autonomy that underpins the dominating idea of what it is to be human.[9] In light of the development that we now see taking place, we may therefore speak about an increased, if not full, transcendence of the conceptual divide, "persons and things" which underlies ideological basis[10] of "the human".[11] The divide between persons and things is, as pointed out by e.g. Roberto Esposito, a divide with ancient traditions. However, as he also very well makes visible, this is a divide that never was as rigid as one is generally made to believe.[12] Today this instability of the binary between what we refer to as *human,* as well as what we refer to as *thing*, has however become more intense just *because*, as Esposito points out:

> "(…) objects are not only intermingled with human elements, solidified and made interchangeable for others, people are in their turn traversed by information, codes, and flows arising from the continuous use of technical objects."[13]

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[9] Braidotti, R. *The Posthuman,* p. 15

[10] I utilize the concept here in line with Marxist streams thus as a concept of a hegemonic force which shapes our understanding of society. For the sake of such lines of thinking in Swedish legal theory, see e.g. Töllborg, D. *Personalkontroll, En ideologikritisk studie kring den svenska personalkontrollkungörelsen,* Stockholm/Lund: Symposium Bokförlag och Tryckeri AB, 1986, p. 35-48.

[11] Braidotti, R. *The Posthuman,* p. 1.

[12] Esposito, R. *Persons and Things*, p.1 Camebridge and Malden: Polity Press, 2015, passim.

[13] Ibid. p. 136

The *human* condition[14] is in this manner identified as becoming progressively entangled with machines/technology. This implies that persons are becoming connected to such elements that indeed previously have been considered more or less as *things*. The introductory examples of the developments of digital technology could therefore be understood as examples of practices of emerging machine intelligence as well as a development that makes it increasingly difficult to separate between persons and things. Braidotti furthermore identifies the condition of obfuscated boundaries between human and technology as a *posthuman condition.*[15] This very idea of a condition *post* human (as well as the fear for it) is in posthumanist theory specifically connected to the idea that it is rather the human as vested in humanist discourses that are coming to an end.[16] As Carey Wolfe argues, humanism is generally difficult to define but one central theme, which it may be connected to is:

> "perhaps *the* fundamental anthropological dogma associated with humanism (...) that "the human" is achieved by escaping or repressing not just its animal origins in nature, the biological, and the evolutionary, but more generally by transcending the bonds of materiality and embodiment."[17]

As Esposito argues, this ideology may also be visibilized through the articulation of the persons/things divide in the manner that it has fulfilled a function in the Western liberal conceptualization of the human, as the human is supposed to be someone who may hold property, but not necessarily *be* property, in the form of a thing.[18] An example of

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[14] Obvious reference to Arendt, H. *The Human Condition* London: Chicago University Press, 1998 [originally published 1958]

[15] Braidotti, R. *The Posthuman*, passim.

[16] Hayles, K. *How We Became Posthuman, Virtual Bodies in Cybernetics, Literature, and Informatics.* Chicago: The University of Chicago Press, 1999, p. 284-285. Braidotti, R. *The Posthuman*, p. 37-38.

[17] Wolfe, C. *What is Posthumanism?* Minneapolis: University of Minnesota Press, 2010 p. xv.

[18] This liberal conceptual understanding that there is indeed a divide between persons and things has of course been made visible and criticized also before the stage we see through technological development today, not the least through e.g. Marx, K., and

humanist discourse may be identified in the dominant theories of property in the manner that private property is deeply connected to personhood as a means for human perfection and transcendence.[19]

This implies for the sake of law and legal philosophy, that if technologization is changing the perception of a divide between persons and things that rests upon humanist ideals, also the notion of legal subjectivity and legal objects may have moved/are moving into a posthuman stage. A posthumanist theoretical framework is therefore here utilized to engage with discourses and practices that challenge the boundaries of dominating conceptual divides that is sustaining the ideology of the human in property law.

1.1 Posthumanism

Posthuman/ist theory has recently become a hot topic in several fields of research. Spanning from philosophy to political theory, art, natural sciences as well as law, it certainly engages in one of its main promises to challenge disciplinary boundaries.[20]As noted by Wolfe, the terminology utilized to describe posthumanism is however still ambiguous.[21] As hinted at, a starting point for the posthumanist theory advanced in this thesis, is the critical stream, which questions the dogma of humanist ideology. This questioning therefore builds upon a stream of theory with tentacles reaching towards the philosophies of Friedrich Nietzsche, Michel Foucault, Gilles Deleuze and Félix Guattari and their questioning of *Man*. An example of such theory is the history of man pursued by Foucault in *The Order of Things: An Archeology of Human Sciences* where he points out that "(...) man is an invention of recent date. And one perhaps nearing its end."[22] When articulating posthumanism here, it is this thread of critique

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Engels, F. *The Communist Manifesto,* Trans. Moore, S. Milton Keynes: Penguin Random House, 2015 [originally published 1848] p. 11-12.

[19] Davies, M. and Naffine, N. *Property as Persons. Legal Debates about Property and Personality.* Aldershot and Burlington: Ashgate Publishing Limited and Ashgate Publishing Company, 2001.

[20] C.f. 1.5.

[21] Wolfe, C. *What is Posthumanism?* p. xi.

[22] Ibid. p. xii. And Foucault, M. *The Order of Things, An Archeology of Human Sciences,* London, Routledge, 2002. [originally published in French, 1966]. p. 422.

that will be followed.[23] As will be elaborated further in chapter two, this stream of philosophy is today also explored under the terminology of New Materialisms.[24]

In 2016 the interest in a changed understanding of human life was reflected in Sweden exhibition "*Livet självt, Om frågan rörande vad det egentligen är; dess materialiteter",* meaning briefly "Life itself, on the question what it really is; its materialities", was also held at the Modern Museum in Stockholm Sweden, showcasing a range of different art works on the theme of new materialities and so-called object-oriented-ontologies.[25] This exhibition was framed as a question of the quality of life itself given the incomplete ways that the Western scientific and philosophical traditions have (not) managed to answer this question. [26] The accompanying exhibition catalogue did not showcase the art exhibited but consisted of a collection of texts by authors such as Giorgio Agamben, Hannah Arendt, Karen Barad, Jane Bennett, Rosi Braidotti and Gilles Deleuze, which will all figure here in explicit or implicit terms.[27]

The posthumanist stream of new materialist theory shares the belief with other new materialist theorists that binary boundaries between matter such as subjects and objects are too rudimentary, as well as directly harmful. Posthumanist theorists in specific however also address a stage where the previous lines between subjects and objects can no longer comfortably be utilized due to the values of *humanism* that they convene as described above. Specific for the posthumanist theory that I will utilize here is therefore a strong commitment in making the convergence between matter or *bodies* visible in order to question the

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[23] C.f. Wolfe, C. *What is Posthumanism?*. p. xiii for alternative theoretical threads of posthumanism, as well as 2.3

[24] See e.g. Dolphijn, R. and van der Tuin, I. *New Materialism: Interviews & Cartographies,* Online: Open Humanities Press, 2012. E-book.

[25] On object-oriented-ontologies or OOO's, see e.g. Morton, T, *Hyperobjects: Philosophy and Ecology after the End of the World,* Minneapolis: The University of Minnesota Press, 2013. *p.* 1-4.

[26] Exhibition, 20 February – 8 May 2016 *Livet självt, Om frågan rörande vad det egentligen är; dess materialiteter.* Another example is the object-oriented exhibition, 12 March- 23 October, 2016, *Objekt och kroppar i vila och rörelse.*

[27] Moderna Museet, *"Life Itself"*, 2016.

assumptions of humanism, including notions of legal objects and legal subjects under such thought.[28]

A critique of the autonomous understanding of subjectivity from has apart from the theorists briefly mentioned above also been discussed by Karen Barad. In more specific, she argues that that liberal social and political theories and theories of scientific knowledge both owe much to the idea that the world is made up of individuals. These individuals are assumed to "pre-exist before the law, or the discovery of law- awaiting and inviting representation."[29] Such ideas where individuals are thought to pre-exist before their representations is, as pointed out by Barad, "a metaphysical presupposition that underlies the believe in political, linguistic, and epistemological forms of representationalism." [30] Such ideas about individuality may according to her be understood as a belief in the possibility to conduct an ontological distinction between representations and that which they represent.[31] Whether pictured in a gloomy or affirmative light, the idea that new materialities (such as human and digital bodies) may be considered as increasingly *entangled* still effectively breaks with the ideas about how humans are to be understood.

A specific focus within the posthumanist stream utilized here is to consider how the current changes in relation to technology and capitalism makes visible other ways of living than those sustained within human-centered ideas of society. In more concrete, this implies an engagement to both produce and consider ruptures between digital and human bodies. This commitment further implies an opportunity for thinking which prospects for a more critical perspective of subjectivity and community that such notion of entanglement give rise to. This implies that posthumanist theory is committed to understand also the positive effects that may come out from the convergences between digital and human bodies, in spite of, and through, the loss of the idea of the

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[28] C.f. Wolfe, C. *What is Posthumanism?* p. xiii

[29] Barad, K. *Meeting the Universe Halfway: quantum physics and the entanglement of matter and meaning,* Durham and London: Duke University Press, 2007. p. 46.

[30] Ibid. p. 46.

[31] Dolphijn, R, and van der Tuin, *Pushing dualism to an extreme: On the philosophical impetus of a new materialism*, Cont Philos Rev (2011) 44:383–400, p.302-393

unitary notion of the human, liberal, legal subject.[32] Thus, through the utilization of such theory, I will critically examine the collapse between previous dichotomies between human and digital bodies and the formation of new materialities they give rise to and/or make visible. An important insight for thinking posthumanist theory as a potential was made clear already through Donna Haraway's *Cyborg Manifesto* when she posed the question:

> "Why should our bodies end at the skin, or include at best other beings encapsulated by skin?"[33]

Thus the question that largely informs the ethical task of posthumanism is to remake the boundary of bodies, human as well as other. This implies that one attempts to think differently about what grounds subjectivity, or personhood, in a manner where it is asked if subjectivity should/needs to be produced in relation to what one generally has conceived of as the limits of the human body as a physical entity? This reiteration of the "human" body has furthermore the implication to produce a theory about both subjectivity and community that is not based on such humanistic limits, and in this manner to reach out to the bodies that have

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[32] I will of course develop this further, but as an initial point of reference, Donna Haraway makes specific use of her long-term thinking in such direction in her most recent work: Haraway, D. *Staying with the Trouble, Making Kin in the Chthulucene*, Durham and London, 2016. passim. Also, see Hayles, K. *How We Became Posthuman,* p. 286-287.

[33] Haraway, D. *A Cyborg Manifesto,* in *Simians, Cyborgs, and Women. The Reinvention of Nature,* New York: Routledge, 1991, p. 178 However, Haraway has also been explicit in pointing out that she does not want to consider herself as a posthumanist. See e.g. Haraway, D. *When Species Meet,* Minneapolis: University of Minnesota Press, 2008, p. 16-17 As she puts it: "(...) the category "companion species" is less sharpely and more rambunctious than that. Indeed, I find that the notion, which is less a category than a pointer to an ongoing "becoming with," to be a much richer web to inhabit than any of the posthumanisms on display after (or in reference to) te ever-deferred demise of man. I never wanted to be posthuman, or posthumanist, any more than I wanted to be postfeminist." However, in the manner that she builds upon thinking, which are affiliated to Baruch Spinoza's thinking (as pointed out by e.g. Michael Hardt and Antonio Negri, Hardt, M., and Negri, A. *Empire,* Camebridge and London: Harvard University Press, 2001. p. 91), she will be treated as a posthumanist here, in order to map together her with other similar thinkers affiliated to Spinoza. C.f. also Åsberg, C. *Donna J. Haraway: den motvilliga posthumanisten,* in Åsberg, C.; Hultman, M., and Lee, F. *Posthumanistiska nyckeltexter,* Stockholm: Studentlitteratur, 2013, p. 47.

otherwise suffered from the ideas of humanity which by closer look was not so inclusive at all

The posthumanist theorists engaged with here can all be understood to combine post-structuralist anti-humanism with a rejection of the opposition between materialism and idealism.[34] As Rosi Braidotti expresses it, the focus is to move towards an understanding of *life* as a non-essentialist form of present day vitalism as well as by framing life as a complex system. This implies a need for a new understanding of matter where matter is thought of as being both affective and self-organizing.[35] Posthumanist theorists such as e.g. Rosi Braidotti but also e.g. Karen Barad are therefore specifically attentive towards the *relational* understandings of "becoming-entangled" with other bodies. This implies that consideration is paid to intersecting power formations according to the research put forward with regards to biopower but also, where possible, patriarchal, racist and specie-superior norms.[36] By giving primacy to how relations are formed over the terms for the bodies engaged in these relations, posthumanism in this vein can be said to foreground the connective potential between bodies that otherwise are treated as *different* and therefore non-connectable.[37]

Bodies that previously have been thought of as digital *or* human may therefore in a posthumanist setting be studied in relation to the

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[34] For an introduction to other, and related, plateaus of the posthuman and posthumanism, see e.g. Braidotti, R. *Inhuman Symposium- Rosi Braidotti*, available through YouTube.

[35] Braidotti, R. *The Posthuman,* e.g. p. 158.

[36] Ibid. *e.*g. p. 159. Barad, K. *Meeting the Universe Halfway*, passim but e.g. p. 3. Barad builds her idea of what affects the production of bodies on the work by Donna Haraway which has notably pointed out a need for understanding intersecting norms of oppression also in the becoming entangled with high-technology. See Barad, K. *Meeting the Universe Halfway*, p. 224 and e.g. Haraway, D. *Simians, Cyborgs, and Women: The Reinvention of Nature*, p. 210. "From the eighteenth to the mid-twentieth centuries, the great historical constructions of gender, race, and class were embedded in the organically marked bodies of woman, the colonized or enslaved, and the worker. Those inhabiting these marked bodies have been symbolically other to the fictive rational self of universal, and so unmarked, species man, a coherent subject. The marked organic body has been a critical locus of cultural and political contestation, crucial both the language of the liberatory politics of identity and to systems of domination drawing on widely shared languages of nature as resource and the appropriations of culture."

[37] Braidotti, R. *The Posthuman,* p. 159.

performative capacity of their own. Performativity can furthermore be understood as a theoretical tool to show materiality, such as bodies, is something that is continuously produced. Performative approaches do however not imply to merely take account of certain performances. This implies that a certain form of behavior is understood as naturalized and not part of a social process, which e.g. humans are born into.[38]

Posthumanist theorists, as well as schools of new materialism that may be framed under so-called Object Oriented Ontologies (OOO) argue that one may take the insights into performativity even further to study matter more attentively and in a less anthropocentric manner. This may be carried out through an increased turn to the activity of matter, in a manner similar to, or as, performative. Through such endeavor, one does therefore not treat matter as passive, awaiting inscription or representation, but as having potential to actively (co-) produce worlds together with (or without) humans.[39]

This thesis is specifically concerned with the materiality that may be described as *digital*. It will here be encountered and referred to in several different forms (while still remaining *in form* as being digital). Some examples of how digital matter will be met, discussed and produced are in the form of digital objects and digital subjects as will be described further below. When I discuss digital materiality and how it appears (or disappears, into other materialities), I will furthermore interchangeably refer to it as a *phenomenon*, *matter*, and in line with my theoretical framework (which will be presented below), *body*. All these terms are just different forms to point out that something has a specific materiality and that it is encountering other materialities that have generally been understood to perform as other types of bodies (phenomena, matter, objects, spaces, subjects).

As an example of a performative understanding in how the digital has its own performativity in relation to space, Kitchin and Dodge suggest the concept of code/space for spaces that are intrinsically co-

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[38] Barad, K. *Meeting the Universe Halfway,* p. 46. The classic example of bridging such passive notion of matter comes from Butler's theory on how gender should be understood as performed rather than enacted through nature.
[39] See e.g. Morton, T. *Hyperobjects,* Bennett, J. *Vibrant Matter, a Political Ecology of Things*, Durham and London: Duke University Press, 2010.

dependent in relation the digital or "code" to perform their role as spaces. As they argue, coded spaces may be perceived as spaces where software makes a difference for space. As exemplified by Kitchin and Dodge, if the check-in area at the airport does not function, persons may not check in and thus the airport does not facilitate travel. If the code in the cashier function stops working at a supermarket, the supermarket loses its vending function and may thus be perceived as a warehouse and not a store.[40]

Timothy Morton develops a similar understanding of materiality in relation to his approach to OOO when he points out that some objects need to be understood as *hyperobjects*. He utilizes this concept to specifically point at how hyperobjects refer to "(...) things that are massively distributed in time and space relative to humans."[41] Such hyperobjects are furthermore always inherently "hyper" in relation to some other entity.[42] Through this understanding, one also, as I will make clearer below, recognizes that one is (even if one is a *human*) always caught up or immersed in a hyperobject. For this reason, there is no way in which it is possible to objectively describe a hyperobject such as a digital object (space, subject, phenomena, matter, body...) once and for all. There is always something in the hyperobject, or here the digital, that escapes.[43] As Morton explicitly puts it "(...) one only sees pieces of a hyperobject at any one moment. Thinking them is intrinsically tricky."[44] Thus, when digital materiality is discussed as a matter here, this is never pursued in a manner where there may be a total capture (not even in part) of such matter. However, by focusing specifically on the matter of the

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[40] Kitchin, R., and Dodge, M., in *Code/Space: Software and Everyday Life*, Camebridge and London: MIT Press, 2011, p. 18. Kitchin and Doge however highlights that it is important to understand code in non-deterministic and non-universal ways. Code/space in their conceptualization emerges through practices that are contingent, relational, and context dependent. Thus code/space always unfolds in several ways but always as embodied by performance of the people within the space.

[41] Morton, T. *Hyperobjects,* p. 1

[42] As a specific characteristic of hyperobjects, he argues that hyperobjects have in common that they are 1) viscous, 2) nonlocal, 3) have profoundly different temporalities than the human-scale ones, 4) interobjective in how they exhibit their effects (interrelational), Ibid.

[43] Ibid. p. 3-4.

[44] Ibid. p. 4.

digital, specific encounters with ideas of the human as well as such things thought of as outside (even if located inside of) the human body may be studied in more detail than if matter is understood as a given, or passive, fact. Thus, instead of e.g. merely studying encounters between minds and bodies, or between things, spaces and humans under advanced capitalism; the focus here is to add the specific material conditions produced by a focus on the *digital*.

1.2 Property

The convergences between human and digital bodies occur through many movements both in theory and practice. This also makes for a great number of possible entrance points. This thesis will focus on discourses and practices related to *property* in a fairly wide sense. Such focus is linked first at the aim to produce a critique aligned with posthumanist theory of capitalism and digital technology as forces that utilizes yet dissimulates legal concepts of what may be rendered into property.[45] Second, the focus on property is connected to the critique of the notion of anthropocentrism and liberal humanism in posthumanist theory as property theory has already made visible that such views are deeply connected to an understanding of subjectivity as something deeply connected to property holding.

1.2.1 New commodities

To support the first focus of this thesis to show how there has occurred a transcendence of the legal conceptual apparatus of property through capitalism and digital technology, I utilize the concept developed in posthumanist theory as "advanced capitalism". [46] In the words of Braidotti: "[a]dvanced capitalism and its bio-genetic technologies engender a perverse form of the posthuman."[47]

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[45] See e.g Radin, M.J. *Information Tangibility* and Radin, M.J. *Boilerplate, The Fine Print, Vanishing Rights, and the Rule of Law*, Princeton: Princeton University Press, 2013.
[46] I will further elaborate on this concept continuously throughought the text.
[47] Braidotti, R. *The Posthuman,* p. 7.

She further notes that advanced capitalism should be understood as a spinning machine producing differences in order to commodify them. These differences are subsequently packaged as 'new, dynamic and negotiable identities' and as endless choices of consumer goods.[48] As several authors have argued,[49] in advanced capitalism, 'Life itself' is the main capital.[50] This capitalization of life itself implies the production of a new economy. Such economy is what Melinda Cooper refers to as 'Life as surplus'. Globalization implies that the Earth as a whole is being capitalized through inter-connected operations. [51]

For the sake of property in the manner which it is generally understood as a category in legal theory, these developments is here identified as specifically relevant from the perspective of *intellectual* property. In the liberal legal conception of intellectual property rights, such construct functions as something that protects creations based on intellectual efforts (of varying degree) to support the cultural and scientific progress of society.[52] The theories of e.g. Cooper, Braidotti and Donna Haraway however makes visible that such understanding is too basic to comprehend its role in advanced capitalism where intellectual property rights gain a function of controlling *life itself.*

Such development of capitalist control over human bodies as information has yet only been very topographically explored in legal theory.[53] The changes in materiality due to the so-called knowledge society in general or knowledge-based business in specific, may however be understood as a strong theme of advanced capitalism as it connects to

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[48] Ibid. p. 58. See also e.g. Klein, N. *No Logo*, Stockholm: Ordfront Förlag, (2002),

[49] Braidotti, R. *The Posthuman,* p. 7, Shiva, V. *Monocultures of the Mind* Zed Penang: Books Ltd. 1993; Haraway, D., *Simians, Cyborgs, and Women. The Reinvention of Nature.*; Cooper, M. *Life as Surplus, Biotechnology and Capitalism in the Neoliberal Era* , Seattle: University of Washington Press, 2008.

[50] Braidotti, R. The *Posthuman,* p. 61 Cooper, M. *Life as Surplus, Biotechnology and Capitalism in the Neoliberal Era.*

[51] Braidotti, R. The *Posthuman*, p. 61

[52] See e.g. Chon, M. *Postmodern Progress: Reconsidering the Copyright and Patent Power.* 43 DePaul L. Rev. 97 (1993)

[53] Mostly, the discussion of information capital and control over human bodies is carried out in relation to biotechnology and biotech patents, such as Bhandar, B. *Disassembling Legal Form: Ownership and the Racial Body*, in (eds). Stone, M., Wall rua, I., and Douzinas, C. *New Critical Legal Thinking.* Oxon and New York: Routledge, 2012.

the understanding of how life has become commodity, or indeed a vector of creation of surplus value. In such creation of life, or knowledge, into a commodity to a larger degree than previously, both innovation theory in general and intellectual property regimes in general have played a very specific role of legitimizing and sustaining such processes of advanced capitalism.[54] Even if a convergence between legal subjects and legal objects, have generally not been discussed from a posthumanist perspective in legal theory, intellectual property as a conceptual regime enrolled in building and sustaining, and from a critical point: enclosing, the knowledge society and knowledge-based business, has been quite significantly explored in intellectual property theory as well as innovation theory in general. From this perspective, one may also say that there has been quite much theoretical development on how matter for intellectual property theory, as well as property theory, and contracts theory, have changed due to the emergence of new technologies under advanced capitalism.

More specifically, technological developments during the last two decades have been studied in intellectual property theory as e.g. processes of digitalization and "dematerialization" of physical (intellectual property controlled) works. In innovation theory, such developments have been explored under the idea that business models have been changing from focusing on the sales of products towards offering services. This insight has furthermore been formulated as a need for technology-oriented firms to move from in-house production within firms, where one business unit takes care of the final product (and has employees to make this product) towards an idea where production should be produced in constellation, or collaboration, with other firms, or actors. This implies in turn that innovation theory has suggested, and to large extent now also the incorporation of the commodities under advanced capitalism as being much linked to so-called "platform-based business models".[55] Thus the

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[54] Cooper, M. *Life as Surplus, Biotechnology and Capitalism in the Neoliberal Era*, p. 3-4.

[55] The works in intellectual property theory are so many that it is almost impossible to give even a few examples. But for example see: Boyle, J. *A Politics of Intellectual Property: Environmentalism for the Net? Online Lessig, L. Zones of Cyberspace.* 48 Stan. L. Rev. 1403-1411. (1995-1996) and Lessig, L. *Code and Other Laws of Cyberspace*. New York: Basic Books, 1999 Radin, M.J. *Information Tangibility;* Schollin, K. *Digital Rights Management*

changes in materialities, as well as how to control new forms of matter is very much interlinked with theories of intellectual property in the digital age[56] as well as high-technology innovation theory.[57]

1.2.2 New subjectivities

To support the second focus on property in this thesis, property is connected to the critique of the notion of anthropocentrism and liberal humanism. This briefly implies to make use of the insights within posthumanist theory that the current forms of advanced capitalism and technology development shifts our notion of human as the central point around which all societies revolve.[58] In property discourse this theme has been specifically addressed as an ultimate boundary between persons and things, as the liberal legal conceptualization of subjectivity rests on the notion that a subject is someone who has the capacity to own the fruits of her own labor. The liberal conceptualization of subjectivity also links into a notion of individual freedom from external interference as something deeply connected to what it implies to be a human. A specific way to express this understanding of both property holding and independence from external interference is through the notion that each individual owns herself.[59]

This understanding of property and subjectivity is specifically interesting from the point of posthumanist theory as they have also pointed at how advanced capitalism engages in overriding the notion of "the human" through a multitude of discursive and material political techniques of population control, which transcends Foucault's idea of

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In innovation theory with regards to platform-based business models, see Gawer, A. *Platform dynamics and strategies: from products to services,* in Gawer, A. Ed. *Platforms, Markets and Innovation*, Cherlenham: Edward Elgar, 2009.

[56]Boyle, J. A *Politics of Intellectual Property: Environmentalism for the Net?* Online. Lessig, L. *Zones of Cyberspace* and Lessig, L. *Code and Other Laws of Cyberspace.*

[57] Chesbrough, H. Open Innovation. Chesbrough, H. Open Services Innovation; Huizingh, E. K. R. E. *Open Innovation: State of the Art and Future Perspectives,* Technovation Vol. 31, Iss. 1, (2011) p. 2–9

[58] I will go more into depth with the concepts of anthropocentrism and humanism in chapter two.

[59] Davies, M., and Naffine, N. *Are Persons Property?* p. 3-6.

bio-political governance.[60] Donna Haraway therefore refers to the late-modern forms of capitalism (and other oppressive regimes linked to it) as the *informatics of domination*, a phenomenon that will be further explored in chapter six.[61]

Practices of control related to property have in legal theory been increasingly theorized in relation to how the contract is utilized to control objects as/similar as how one controls property. Furthermore, also legal practices and theories of network-based practices [62] could be understood as relevant theoretical developments that inform the understanding of advanced capitalism as understood in posthumanist theory. Also, an obvious site of reference in relation to extended control as well as possibility to limit such control in relation to the human-digital technology nexus may be identified in the legislations and discussions regarding data protection.[63]

In relation to such insights, I suggest that instead of thinking that property only concerns things or that intellectual property is something that indeed concerns the mind and not bodies. I therefore argue that we need a wider notion of property to be able to visibilize the power produced through the convergences between bodies caused by advanced capitalism.

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[60] Braidotti, R. The *Posthuman*, p. 61

[61] Haraway, D., *Simians, Cyborgs, and Women. The Reinvention of Nature.* p.161-162. More on the informatics of domination in chapter six.

[62] Radin, M.J. *Humans, Computers and Binding Committment.* Indiana Law Journal. Fall, 2000; 75 Ind. L.J. 1125 Radin, M.J. *Information Tangibility;* Elkin-Koren, N. *What Contracts Can't Do: The Limits of Private Ordering in Facilitating a Creative Commons.* Fordham Law Review, vol. 74, 2005. Teubner, G. *Networks as connected contracts: edited with an introduction by Hugh Collins.* International Studies in the Theory of Private Law (7). Oxford: Hart Publishing,

[63] See about this shift see: Kitchin, R. *Big Data, new epistemologies and paradigm shifts in Big Data & Society* April-June 2014, and some legal discussions following the case C-131/12 Google Spain SL, Google Inc. v Agencia Española de Protección de Datos, Mario Costeja González "The Right to Be Forgotten", e.g.: Weber, R. H., *The Right to Be Forgotten: More than a Pandora's Box?* 2 (2011) JIPITEC 120, Rustad, Michael L. and Kulevska, Sanna, *Reconceptualizing the Right to Be Forgotten to Enable Transatlantic Data Flow* (July 6, 2015). Harvard Journal of Law and Technology, Vol. 28, p. 349, 2015

1.3 Law

A significant focus of this thesis is its connection to law and legal constructs in general. In accordance with the dominating idea today, it is believed that law is expressed in the form of legislations, other legal texts, and court judgments. While continuously questioned,[64] this is still the remaining idea also in legal theory today. It therefore needs to be addressed already here that posthumanist theory has specific implications for how one may think about law as well as the role (and rule) of law. I here develop this perspective under the terminology of *posthumanist jurisprudence*. The aim with framing a perspective of posthumanist jurisprudence is specifically to develop the theory of how to think about law in relation to posthumanist theory. This has implications for how to think about law in different terms in relation to the forces identified as advanced capitalism and anthropocentrism, as well as the performative capacity of matter such as digital technology. Furthermore, it implies developing a jurisprudence that is specifically connected to the critical aims of posthumanist theory.

This implies that law will here be visualized in a manner, which also breaks with the liberal humanist and also anthropocentric ideas of what may be considered as law. As I will discuss in chapter three, this significantly implies that law is never understood as appearing only as specific texts. Neither is law therefore perceived as a system, which a human universal onlooker may interpret from an objective viewpoint.[65] Thus, my aim is not merely to criticize legal concepts from e.g. their lack of "coherence" with business practice or something similar. This perception of law may in turn be understood as a sidestepping of the role that law has played within the perception of law in liberal society as something that should safeguard democratic values of the nation-state.

The understanding of the pervasiveness vested in advanced capitalism identified in posthumanist theory however necessitates such

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[64] See e.g. de Sousa Santos, B *Law: A Map of Misreading. Toward a Postmodern Conception of Law,* Journal of Law and Society, Volume 14, Number 3., Autumn (1987), p. 279-302.
[65] I will discuss the necessity of situatedness in relation to posthumanist theory more below 1.5.1.

changed understanding of law. The reason for this is that law needs to be understood to already have followed suit as a tool for advanced capitalism, in the manner, which I here will exemplify in relation to property. The aim with discussing law in this manner is however not to leave law without the ethical force it is believed to have in a liberal conception of law, but rather to reactivate the potential for law to be something else than an instrument for capital in relation to digital technology. Therefore, I suggest a new form of jurisprudence that may both identify and answer in more affirmative ways to these developments.

This form of jurisprudence is furthermore constructed upon the affirmative endeavor of posthumanist theory where it has consistently been argued that we need new ways to both criticize as well as to think more affirmatively about the on-going processes of world-making. For example, therefore, as I will show throughout, the idea to break down the conceptual divides between subjects and objects by showing that this rupture has already been produced through digitalization and advanced capitalism, the aim is to show that this also takes us somewhere else: where it becomes difficult to think about a separate human existence, where the notion of human individuality and exceptionalism rule.[66] The aim with posthumanist theory as used and developed here is in this manner no to erect a new form of human to answer for the negative effects caused by advanced capitalism. Rather, it aims to show that this change has already occurred and that the way out from the troubles caused by the breakdown of these divides are available just *through* such processes.

Thus the role of the posthumanist jurisprudence will here be developed as an (constantly ongoing) answer to what I refer to as property in a more wide sense than what is common. This implies that there will not be a specific answer *outside* of "law" or "justice" to property, which I will arrive at in the end of this thesis. Rather, posthumanist jurisprudence will be developed throughout the text as an engagement to move the developments of advanced capitalism towards an understanding of more radically relational accounts between "subjects" and "objects" as developed in posthumanist theory. In this manner, what

[66] C.f. Haraway, D. *Staying With the Trouble,* p. 30

is produced here is a deeply relational ethics in the posthumanist vein, in spite of, but also deeply *through* the developments for advanced capitalism.

Posthumanist jurisprudence is therefore here developed to challenge specific conceptualizatioons of matter as well as in relation which role law plays in these constructions as it:

> 1) does not consider law's objects in traditional ways of understanding matter,
> 2) does not consider law to be vested in textual/nation-stated founded ideas of law, only.

Through this understanding of law, posthumanist jurisprudence is argued to have the possibility to come closer to the *actual* practices of law in advanced capitalism and see how matter is altered and which problems that pose in relation to such alterations. Through the encounters between legal concepts related to material divides and market-based practices, a number of new legal questions in this area are thus identified. These questions are posed in relation to which negative effects are produced if law does not fulfill an "ethical role" in accordance with the posthumanist tradition. By posing these questions, it also becomes visible that law could play a more active role in producing alternative bodies that are less supportive of the negative effects of advanced capitalism.

A necessary difference and role for critical engagement in law from a posthumanist perspective is therefore to meet the challenges to legal subjectivity by considering the ongoing production of entanglements[67] between posthuman bodies[68] rather than to talk about e.g. *access to knowledge*, *rights to expression*, *rights to anonymity* etc. which has otherwise been the routine path in critical jurisprudence within technological fields.[69] Those rights can of course still play a role in the construction of

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[67] I will problematize the concept of entanglement in a posthumanist sense in chapter two.

[68] I will problematize the concept of the body in a posthumanist sense in chapter two.

[69] See e.g. Kapczynski, A. *Access to Knowledge: A Conceptual Genealogy,* in Kirkorian, G, and Kapczynski, A. *Access to Knowledge in the Age of Intellectual Property*, New York: Zone Books, 2010.

more posthumanist ethically informed notions of movement of bodies. To pursue such purposes, a deeper understanding of which boundaries of bodies and assemblages are at stake in the abstract formulations of rights is however arguably required. Spinozist legal theorists such as Alexander Carnera and Janice Richardson have notably pursued this mode of considering right constructions in a more matter-oriented manner[70]. None of them have however directly engaged with such theories in relation to the advanced capitalist discourses and practices covered here. I will therefore here suggest potentially new ways of how to consider the current technological developments in a posthumanist vein as opposed to, but also following, some strictly critical perspectives developed through e.g. access to knowledge movements, open source-initiatives etc.[71]

1.4 Research questions

This thesis explores how one can understand human and digital bodies as increasingly entangled through posthumanist theory and how this changes the dominant perception of what these respective *bodies can do*.[72] Central to the thesis is to challenge different legal concepts related to property as a boundary towards humanist perceptions of subjectivity This challenge is in more specific taken up in relation to the power regimes identified in posthumanist theory as advanced capitalism and technological development but also other regimes of power connected to the production of human and digital bodies in relation to such forces.

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[70] Carnera, A. *Freedom of Speech as an Expressive Mode of Existence*, Vol. 25, Iss. 1. Int J Semiot Law, (2012), pp. 57-69. Richardson, J. *Spinoza, Feminism and Privacy: Exploring an Immanent Ethics of Privacy,* Fem Leg Stud (2014) 22:225–241

[71] All of which will be more explored below.

[72] C.f. The introductory quote to this part, Deleuze, G. *Spinoza, Practical Philosophy,* San Francisco: City Lights Books, 1988 [originally published 1970 in French], p. 17- 18

This endeavor may be summarized as follows:

> **Posthumanist theory makes visible and challenges legal conceptual divides between human and digital bodies as enacted in property law. This opens up for a new understanding of the relation between human and digital bodies through and beyond dominating ideas of subjectivity linked to *the human*.**

In order to consider which problems that posthumanist theory may identify as well as treat differently than current production of property in relation to digital and human bodies, the following research questions have been formulated:

> **1. How may a concept of *body* in posthumanist theory visibilize and challenge the conceptual divide in property theory between mind and body?**
>
> **2. How may a concept of *entanglement* in posthumanist theory visibilize and challenge the conceptual divide in property theory between persons and things?**
>
> **3. How may a concept of *ethics* in posthumanist theory reconceptualize and challenge the concept and matter of property?**

The first question is focused on introducing the concept of the body through posthumanist theory in order to rethink property in relation to the mind/body binary. The rationale behind challenging this divide in relation to property law from the perspective of digital and human bodies is that the production of digital bodies has been suggested to function specifically on a disembodification discourse. At the same time, "knowledge" has been identified as increasingly placed under a commodification discourse, which embodies products of the mind as

objects of exchange.[73] A focus of materiality through the concept of the body is therefore suggested a means to make visible how ideas about knowledge as well as digitalization are produced as discourses of disembodiment. Furthermore, it is also suggested to function as a tool to show how, in spite of this perception of disembodiment, digital bodies make visible several material assumption within intellectual property law.

The second question is focused on introducing the concept of *entanglement* through posthumanist theory. The aim with this tool is to further question the idea of materiality vested in dominant conceptualizations of property law. More specific, this tool aims at making visible and challenge the binary divide between persons and things articulated in property theory as a divide between persons and property.[74] The tool is therefore suggested to challenge the boundaries between human and digital bodies within a divide between persons and things and suggests that one instead needs to understand such bodies as increasingly entangled. It is furthermore argued that when such entanglement is made visible, it also becomes possible to see a less rigid boundary between persons and things as threatening for our understanding of political subjectivity as expressed in humanist ideals.

The ruptures made visible through the body and entanglement tools in the mind/body and person/thing divide is subsequently directed to a quest for what kind of affects that shape the convergences between human and digital bodies. This quest is here expressed as the third question of how a posthumanist concept of *ethics* could the identified practices of property in relation to such convergences.

1.5 Methodological commitments

Posthumanist theory engages in several distinct methodological commitments, which places the stream in the critical school of thought. A primary concern is that epistemology and ontology are not treated as distinct categories but as interfolding through research as practice. Also,

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[73] See above on "new commodities" under Property. Also see e.g. Hayles, K. *How We Became Posthuman*, p. 2-4, and Cooper, M. *Life as Surplus.* p. 3-4.
[74] C.f. Davies, M., and Naffine, N. *Are Persons Property?* Passim.

posthumanist research practices have been suggested to entail a specific commitment to posthumanist ethics.[75] The research questions, material, and theoretical tools that I make use of here have subsequently been selected in order to maximize a movement towards posthumanist ethics. This implies that a separation between theory and method cannot be made.[76] Instead, what may be offered under this section is a number of methodological commitments. These commitments are all put in use in order to move towards a different understanding of "the human" as well as "the digital" as increasingly entangled bodies. Furthermore, they have the purpose make visible practices and discourses where human bodies converge. The convergences of interest are specifically those that may be utilized to forward the ethico-political aim of posthumanist theory.[77] This implies that the material utilized here is selected as examples that will make visible ways to think about human and digital bodies under property law in a more posthumanist sense.

As mentioned above, a starting point for theoritcial consideration and development here is the difference between digital and human bodies. This difference has also previously been visibilized in posthumanist theory. As Halyes, points out the separation, as well as the obfuscation of this divide is notably connected to an idea of a mind/body divide.[78] This difference is specifically enacted in property law through the distinction between real property and intellectual property. Another central divide of the conception of the human as separate from digital bodies embedded in humanist ideology is the between the human subject and all other matter.[79] This divide is here visibilized mainly as a person/thing divide. This difference is in property law expressed e.g. in the manner that property holding is connected to subjectivity in society. When focusing on these divides here the aim is thus to show how there are many practical examples as well as narratives that all point to the understanding that human and digital bodies increasingly converge. And

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[75] See e.g. Barad, K. *Meeting the Universe Halfway*, p. 86-87

[76] Ibid. e.g. p. 90-91.

[77] See 2.4.3.

[78] Hayles, K. *How We Became Posthuman,* p. 1-2. Braidotti, R. *The Posthuman*, e.g. p. 143

[79] Hayles, K. *How We Became Posthuman*, e.g. p. xii-xiii, 2 Braidotti, R. *The Posthuman,* e.g. p. 2

furthermore, this commitment implies that these convergences open up for the possibility to reconsider specific theoretical assumption of who is human and who is a digital object and what characteristics (if any) it is that makes them so. This methodological commitment is furthermore enacted both as a call for a posthumanist understanding of property as well as law.

In this manner, the study of the convergence between digital and human bodies is specifically embedded both in a specific purpose as regards to which material is being studied. Apart from such primary posthumanist methodological concerns, this commitment may also be expressed as an affinity for *situatedness/cartography, radical disciplinarity*, and *monism.*[80] I will here discuss briefly how such engagements are carried out through this project.

1.5.1 Situatedness

A posthumanist epistemology of law is a situated epistemology.[81] Such epistemology assumes a corresponding ontology as it takes into account its particular ontological situatedness.[82] Donna Haraway is particularly known for advocating such an epistemological perspective. What is specific with this perspective is that it refuses both universalist ideas about objective knowledge as well as relativism. Just like objectivism, relativism is identified as a disembodied way in understanding how knowledge is produced and perceived.[83] In Haraway's words, such views imply "a way of being nowhere while claiming to be everywhere equally".[84] Relativism and objectivism are both what she refers to as "god-tricks".[85] The alternative to both these perspectives in her view

[80] Philippopoulos-Mihalopoulos, A., *Spatial Justice: Body, Lawscape, Atmosphere* Oxon/New York: Routledge, 2015, p. 28, 34-35, p. 59-65. Philippopoulos-Mihalopoulos do not explicitly refer to monism but he utilizes the Spinozan body concept, which e.g. Braidotti refers to as monist. See Braidotti, R. *The Posthuman,* p. 56.
[81] Philippopoulos-Mihalopoulos, A. *Spatial Justice.* p. 59
[82] Ibid. p. 59; Haraway, D. *Situated Knowledges: The Science Question in Feminism and the Privilege of Partial Perspective* in *Simians, Cyborgs, and Women. The Reinvention of Nature.*
[83] Ibid. p. 191.
[84] Ibid. p. 191
[85] Ibid. p. 191

is ”partial, locatable, critical knowledges sustaining the possibility of webs of connections called solidarity in politics and shared conversations in epistemology.”[86] Situated knowledges furthermore require that *the object of knowledge* is pictured as an actor or agent and ”(…) not a screen or a ground or a resource (…)”[87] and ”never finally as slave to the master that closes off the dialectic in his unique agency and authorship of 'objective' knowledge.” [88] However, this does not imply a resort to 'realism'. As she points out: the world can neither speak itself nor disappear in favor of master decoder and ”the codes of the world are not still, waiting only to be read” [89] and ”the world is not raw material for humanization (…).”[90]

The connection to situatedness in posthumanist theory is specifically aligned with its feminist connection as feminist research has continuously questioned the ontological stability of a specifically gendered reality and the relation between space, place, bodies and the law. Such projects have brought forward an idea of ontological vulnerability that in new materialist streams[91] is referred to as the *fragility of things*. As noted by Philippopoulos-Mihalopoulos, this movement to consider entities, or bodies, as always fragile, entails the beginning of *the posthuman*.[92] Epistemology in the posthumanist school is, as discussed, furthermore thought to unfold in parallel to ontology.[93] Karen Barad argues that one therefore cannot even speak of epistemology and ontology as separate since “knowing is a material practice of engagement as part of the world in its differential becoming.” It therefore also implies that questions regarding ethics are always embedded in a posthumanist,

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[86] Ibid. p. 191
[87] Ibid. p. 198
[88] Ibid. p. 198
[89] Ibid. p. 198
[90] Ibid. p. 192-193 and 196-200.
[91] I will discuss the potential difference between new materialist theory and posthumanist theory below. Suffice it to say here however that they are (at least) very closely related.
[92] Philippopoulos-Mihalopoulos, A. *Spatial Justice*. p. 18.
[93] c.f. Ibid. p. 10.

situated, epistemology.[94] Karen Barad also refers to the posthumanist epistemology explicitly as an ontoepistemeology.[95]

The situated aspects of posthumanist epistemology will be carried out in this project through an engagement with a number of formations related to the altered entanglement between mind and body as well as to altered entanglements between persons and things. In the prolongation this also implies a questioning of the divide between human/nonhuman and human/inhuman.[96] Through the engagement with these divides, law is furthermore intrinsically situated *inside* the production of these phenomena. I will thus not study any "field of law" nor any legal construction in specific but instead engage with how central conceptual divides of property law, have traditionally engaged in very specific boundary practices between human (or rather, in liaison with a specific notion of "the human) and nonhuman bodies related to a specific idea of human subjectivity. The situating of law inside these phenomena is furthermore carried out through a posthumanist engagement, why not *all* encounters with law and specific phenomena are mapped out. Instead, my aim is to provide an "affirmative posthumanist cartography".[97] Braidotti explains the idea of cartographies in the manner that:

> "A cartography is a theoretically based and politically informed reading of the present. Cartographies aim at epistemic and ethical accountability by unveiling the power locations which structure our subject-position. As such, they account for one's location in terms of both space (geo-political or ecological dimension) and time (historical and genealogical dimension). This stresses the situated structure of critical theory and it implies the partial or limited nature of all claims to knowledge. These qualifications are

[94] Barad, K. *Meeting the Universe Halfway,* p. 43

[95] Ibid. p. 86-87. I use the term epistemology here in order to be more pedagogic in an attempt to explain more specifically how this epistemology is of a kind that understands epistemology and ontology as always unfolding in parallel.

[96] Philippopoulos-Mihalopoulos, A. *Lively Agency: Life and Law in the Anthropocene* in ed. Braverman, I. *Animals, Biopolitics, Law: Lively Legalities,* New York and Oxon: Routledge, 2016, p. 193-195.

[97] C.f. Braidotti, R. *The Posthuman*, p. 164.

> crucial to support the critique of both universalism and of liberal individualism."[98]

The aim with such cartography here is thus to open up for a reinterpretation of the phenomena of human and digital bodies in law, that opens up for a re-evaluation of the boundaries of property under current forms of humanism expressed under *advanced capitalism* and *anthropocentrism*. In more general terms, cartographic methodologies of law have been developed within the sociolegal and spatiolegal streams, which I will further connect the project to below.[99] This methodology can furthermore be understood as being quite close to empirically oriented studies within the legal discipline. The explicit connection to political aims however focuses this methodology towards the aim of utilizing material that aligns with the ethico-political aim of the study. In relation to this thesis, such starting-point implies that the material is elected in order to make visible problems with idea of humanism enacted as a mind/body and person/thing divide within property.

The cartographic methodology is here specifically related to which cases I utilize to criticize the liberal subjectivity related to property. Thus, the formations are informed by the interest in specific dichotomies that are being challenged through advanced capitalism, with the focus on commodification of products of the mind, as well as separation between persons and things. The aim with choosing examples in this manner also folds into a general ethical aim at disrupting what Patricia MacCormack has called "the Majoritarian language of law", which to large degree currently involves the notion of law as something that occurs in courts, as texts, etc.[100] This understanding of law and legal research is furthermore also rupture in relation to the second methodological commitment: *radical disciplinarity*.

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[98] Ibid.
[99] See 1.6.3.
[100] C.f. MacCormack, P. P*osthuman Ethics, Embodiment and Cultural Theory*. Farnham and Burlington: Ashgate, 2012. p. 120.

1.5.2 Radical disciplinarity

A second methodological approach of posthumanist theory, which is utilized here, is the commitment to radical interdisciplinarity between the fields of humanities and science.[101] This form of radical disciplinarity is reflected here in the way that I engage with law through what could otherwise be, and traditionally has been, understood as several 'law and'-perspectives. As posthumanist theory is closely allied with critical theory, it is important to problematize the disciplinary outsides continuously produced and reproduced in legal theory and practice. From a critical legal theory-point, e.g. Margaret Davies has expressed a reservation towards law and-perspectives since:

> "(…) speaking of law and its relationship to the social presumes a separation, and a difference, between law as an entity and an external sphere. The terms of this difference have been of central interest to feminist critiques of law, since the separation of law from its conceptual others defines it as being about inclusion and exclusion. Who is represented in the law? Whose stories are told and heard? Who is in control? Common formulae such as 'law and morality', 'law and politics', 'law and society', 'law in context' tend to embed this positivist presumption in many forms of legal thought, even where the intention is to critique the absolute difference between law and its others. (...) At the same time, much theory (socio-legal more than philosophical) depicts law differently, as something which is inseparable from the social landscape rather than superimposed upon it."[102]

This understanding subsequently resonates well with the posthumanist aim of theory development. To pragmatically handle disciplinary ruptures from an epistemological perspective while keeping the thesis systematically stringent is of course more complicated. This holds even

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[101] Ibid. p. 143-185. Braidotti, R. *The Posthuman,* e.g. p. 169.
[102] Davies, M. *Feminism and Flat Law Theory* in. *Feminist Legal Studies* (2008) 16: 281. p. 281-282. See also Philippopoulos-Mihalopoulos, A. *Spatial Justice, p. 192*

more true as the research approach utilized here is still quite new, both from a theoretical perspective and from a practical one (if one hypothesizes such a divide for a moment).[103] The engagement with technologically-, as well as market/trade oriented legal fields have however for a long time demanded a practical engagement with law as practice (for the lack of better terminology).[104] For this reason, not even if this thesis had been engaged in "determining the law" would it have been, law as that which is e.g. "sociologically" practiced *or* what is often referred to as "positivist" law. Therefore, "the law" as generally outlined as property law is here studied through the identification of legal conceptual divides but also business discourse and practices etc. that relates to the production of a divide as well as convergences between digital and human bodies.[105]

The aim is thus not to give a "full" map of "law" in a specific "field" but to point at a diversity of practices that affect the production of property through the convergence between human and digital bodies. The election of these practices is in turn informed by the fact that they challenge the liberal legal concepts of subjectivity as expressed in property concepts.

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[103] C.f. Banakar, R, and Travers, M. *Law, Sociology, and Method,* Oxford: Hart Publishing, 2005, p. 4 On the disciplining role of methodology and interdisciplinarity: "Concerns with methodological issues emerge as part of attempts of various fields of research to present their labours as systematic, reliable and rigorous sources of knowledge. Once these fields are transformed into established disciplines, they use methodology to monitor and sustain the quality of the research conducted within their realms, but also to 'discipline' the newcomers. In other words, methodology has two closely interrelated functions: It, firstly, guarantees a degree of quality control and, secondly, it ensures the internalisations of standards and values underlying any particular discipline by the newcomers of that discipline."

[104] See e.g. Thomas Wilhelmsson on contct law: Wilhelmsson, T. *En social avtalsrätt? Några kommentarer.* Juridisk Tidsskrift Nr 3. 1993-1994 and Glavå and Petrusson on a sociolegal approach to the legal practices in the knowledge society: Petrusson, U. and Glavå, M. *Law in a Global Knowledge Economy: Following the Path of Scandinavian Sociolegal Theory,* Law and Society, Scandinavian Studies in Law. Vol 53*.,* (2008) p. 94-133

[105] C.f. Philippopoulos-Mihalopoulos, A., *Spatial Justice.* p. 62.

1.5.3 Monism

A third main theme in new materialist philosophy, and subsequently posthumanist theory, is the focus on monism, which "pushes dualism to its extreme".[106] As noted by Dolphijn and van der Tuin, the way that posthumanist thinkers such as Rosi Braidotti rewrite the emancipatory potential of modernity is by revisioning the dualism central to modern thought.[107] This methodological theme is thus linked to the questioning of binary couplings such as the mind/body divide and the human/digital divide, which are of specific interest here. What the methodological commitment points at here is that the questioning of binary divides in itself functions as a tool to pursue ethics in a posthumanist manner.

As furthermore noted by Dolphijn and van der Tuin, this approach to dualisms has specific affiliations to the theories of Gilles Deleuze and Félix Guattari methodologically (as e.g. ways of doing philosophy) as well as ontologically (a material spirit). This may be exemplified by their often quoted passage that:

> "We invoke one dualism only to challenge another. We employ a dualism of models only in order to arrive at a process that challenges all models."[108]

Therefore, the methodology proposed in rewriting modernity, which the posthumanist critique is deeply engaged in needs to be ruptured through a questioning of binaries in general but specifically those binaries that conceptually constitute modernity. As argued by Dolphijn and van der Tuin, by pushing dualism to their extreme, "difference is pushed to the

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[106] Dolphijn, R, and van der Tuin, *Pushing dualism to an extreme: On the philosophical impetus of a new materialism*, p. 386.
[107] Ibid p. 386
[108] Deleuze, G., and Guattari, F. *A Thousand Plateaus*, *Capitalism and Schizophrenia,* Trans. Massumi, B. London and New York: Bloomsbury Publishing Plc, 2013 [originally published 1998 in French] p. 21 Dolphijn, R, and van der Tuin, *Pushing dualism to an extreme: On the philosophical impetus of a new materialism*, p. 386

limit."[109] Thus, instead of thinking of difference as something that is once and for all enacted in a specific way between bodies, difference may be explored on a more wide scale. For example, this implies that one may see *connections* between bodies that otherwise have been thought of as separate. Here, this is done, as continuously discussed, as an engagement between different entanglements and ruptures in the divide between mind and body of the human as well as between human and digital bodies. As also pointed out, such divides both fall into the more general divide between person and things that is criticized in posthumanist theory as a category that builds upon a liberal humanist understanding of the subject. As discussed, this notion of the subject is specifically criticized in posthumanist theory since it is found to exclude a number of *differences* and *others* of the human, which is linked to anthropocentric and capitalist power regimes. By radically rewriting the dualisms of modernity, new materialism, is therefore methodologically committed to a philosophy of difference that opens up for a "new" ontology beyond power regimes such as anthropocentrism and capitalism that may directly connected to modernity.[110]

As argued by Rosi Braidotti, monism relocates difference outside the dialectical thinking, "as a complex process of differing which is framed by both internal and external forces and is based on the centrality of the relation to multiple others." She furthermore points out that social constructivist theories have already been fruitful as progressive tools to denaturalize social differences by showing how such differences are construed by man and are embedded in a historically contingent structure. As an example, one may simply point at the effect of the de Beauvarian statement "one is not born, one becomes a woman". Thus, instead of believing that there is a fixed and dualist difference between men and women, de Beauvoir sparked an entirely new way of thinking about this difference by stating that "woman" is something that one becomes

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[109] Dolphijn, R, and van der Tuin, *Pushing dualism to an extreme: On the philosophical impetus of a new materialism*, p. 386. See also MacCormack, P. P*osthuman Ethics, Embodiment and Cultural Theory*. p. 120.

[110] Dolphijn, R, and van der Tuin, *Pushing dualism to an extreme: On the philosophical impetus of a new materialism*, p. 384 and Braidotti, R. *The Posthuman*, e.g. p. 89

through one's integration in society.[111] The processual and socially contingent way of thinking about how womanhood is produced is in de Beauvoir's account also connected to the notion that the binary production of man/woman supports the production of man as superior to woman.[112] Thus, just like posthumanist theorists, what is attacked in her theory, is the idea that binary conceptions serve a specific form of dominance related to modernism and liberal humanism where man is placed as a central and neutralized subject.[113]

The social constructivist interventions in binary conceptions of subjects and objects have in this manner intervened significantly in showing how power vested in social structures constructs bodies differently. Inspired by Deleuzoguattarian[114] theory, Braidotti however argues that such thinking also rests upon a binary opposition between the *given* and the *constructed.*[115] This is obvious not the least from the fact that constructivism in the latter school is expressed as "social" construction.[116] In posthumanist theory also this divide is questioned as part of the monist methodological commitment. This is expressed e.g. as a non-dualistic understanding of nature-culture interaction. Braidotti points out that this aim may be specifically pursued through bridging the oppositional framing of nature and culture through perceiving both as self-organizing (or auto-poietic) forces of living matter.[117]

For the sake of engaging with such theoretical standpoint, my methodological focus here on different concepts posed as opposites/dichotomies in legal theory enacted as a person/things binary through mind/body and human/digital divides in property law. The specific aim to reach further in the deconstruction of social constructivist

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[111] De Beauvoir, S. *The Second Sex,* Trans. Borde, C., and Malovany-Chevalier, S. New York: Alfred A. Knopf, 2010 [originally published 1949 in French] p. 283

[112] Ibid., e.g. p. 21-23.

[113] Ibid. passim C.f. Braidotti, R. *The Posthuman*, p. 20-22

[114] This concept here refers to the joint theoretical production of philosophers Gilles Deleuze and Félix Guattari. For more information about their joint project, please see e.g. Bruncevic, M. *Fixing the Shadows.* Gothenburg: Kompendiet, 2014, p. 74

[115] Braidotti, R. *The Posthuman,* p. 3, 35, 56

[116] A specifically significant example of such enactment of a divide between social and natural may be found in Searle, J. *The Construction of Social Reality,* London: Allen Lane, 1955, p. 1-2.

[117] Braidotti, R. *The Posthuman,* p. 3, 35, 56

aim is here furthermore also pursued through considering how property law is not only a textual or conceptual apparatus but also something that is produced through "technological" such as "digital" bodies. Attention towards the enactment of law through digital bodies is a specifically apt focus with regards to technology-related law as it is already old news how law as a social construct has already been questioned in the digital sphere during the last decade or two.[118]This aim to move away from a textual conceptualization of law is furthermore pursued through a case-oriented understanding of law, which is, as will be discussed further below, connected to the sociolegal tradition in legal theory.

1.6 Connecting the project with other legal theoretical streams

This thesis is as here continuously introduced, produced as a project in posthumanist and new materialist theory in general. Both of those theoretical underpinnings will be further explored in chapter two. As has been discussed briefly above however, this theoretical focus is deeply connected to a "theoretical-methodological" approach focused on situatedness, critique and materiality in general. Such theoretical engagements can therefore be further connected from a legal disciplinary perspective through three specifically valuable main streams of theoretical connection. These connections will here shortly be further described as "the sociolegal connection", "the spatiolegal connection", and "the critical legal theory connection".

1.6.1 The sociolegal connection

A starting point for this thesis was the understanding that law is not an object (or subject) that can be studied merely through the engagement with legislation, preparatory works, legal cases and other similar materials. Such perception of the law, and material utilized to pursue such studies, is in Sweden otherwise often referred to as "traditional legal sources" and

[118] See e.g. Zittrain, J. *The Generative Internet,* 119 Harvard Law Review 1974, 2006; Lessig, L. *Code and Other Laws of Cyberspace.*

functions as a methodology connected to legal positivism.[119] In what in this discourse of law is generally perceived as a field of *business law*, it is obvious that other actors and sources than the ones emanating from the "traditional legal sources" are very much considered to be of importance in assessing both what is a legal object as well as how to handle such object. One could therefore even refer to this production of law as something that is carried out by business actors. As Thomas Wilhelmsson has argued, such reasoning may be specifically made visible in relation to e.g. contract law. In this manner, practices that strictly may be perceived as being outside of "traditional legal sources" are included without much change to the view of what law is or through which material it is to be studied.[120]

However, the openness of legal positivism towards engagements with business/market norms is still limited through different constructs in legal theory as well as practice. Therefore, a theoretical boundary for positivist theory is also put up of what to study as law.[121] A sociolegal theoretical orientation on the other hand, implies a larger degree of freedom to engage with what can/should be studied as law.[122] Thus, it opens up for studies of "actual behaviors" of market actors and how those actors may be understood to produce law.[123] Such methods may also be fruitfully combined with various analyses of power. This has been done in e.g. feminist research, in a way where it enables a potential to critique why some norms are left out from legislation or why some

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[119] I will discuss such legal theoretical perspectives in some more depth in chapter three.
[120] Wilhelmsson, T. *Senmodern ansvarsrätt, privaträtt som redskap för mikropolitik,* Uppsala: Iustus förlag, 2001, p. 42-49
[121] I will discuss this further in chapter three.
[122] On the application of sociolegal theory in civil law, see e.g. Teubner, G., and Collins, H. *Networks as Connected Contracts* p. 18-21, and 82-86 and Petrusson, U., Glavå, M. *Illusionen om rätten- juristprofessionen och ansvaret för rättskonstruktionerna* i Askeland, B & Bernt, J.F. (red.), *Erkjennelse og engasjement: minnesseminar for David Roland Doublet*, 1954-2000, Bergen, 2002.
[123] C.f. Glavå, M., and Petrusson, U. *Law in a Global Knowledge Economy: Following the Path of Scandinavian Sociolegal Theory,* Law and Society, Scandinavian Studies in Law. Vol 53., (2008) p. 94-133 Glavå, M. And Petrusson, U. *Illusionen om rätten! –juristprofessionen och ansvaret för rättskonstruktionerna*

legislation is not efficient.[124] The sociolegal connection of this study is specifically visible vis-à-vis the legal constructs and practices that I have selected as examples of the development of digital objects and digital subjects. I link these examples and how they differ from traditional understandings of objects and subjects to changes in society by posing them against the liberal conceptual constructions and boundaries of property.

The sociolegal connection here therefore functions as an entry point to engage with other practices of law than what is generally perceived as being part of law. Such focus is furthermore also necessary not the least from the perspective of situatedness in posthumanist theory as discussed above.[125] To study only the legal concepts as *law* would diminish the situatedness of law significantly. From a critical point of view, which aims to correspond to posthumanist theory, the sociolegal connection however also needs further theorization from a critical perspective. The reason for this is that nothing in sociolegal theory per se forces a need to view law as situated from the same perspectives as those put forward as important for reaching beyond advanced capitalism and liberal humanism in posthumanist theory.[126] Even if feminist and other critical perspectives have been pursued as part of sociolegal theory, these perspectives are not *necessary* to place oneself within such theoretical stream. From the perspective of posthumanist theory, there is therefore a significant risk that studies of e.g. business practices as law are pursued in a non-critical and/or objectivist manner.

Posthumanist theory necessarily objects to such uncritical treatment of "practices" whether they are considered "legal" or "nonlegal". As discussed above, a specific focus is furthermore to criticize advanced capitalism and anthropocentrism.[127] With such explicit ethico-political concern, the thesis is therefore furthermore also directly possible to relate to the tradition of *critical legal theory*.

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[124] C.f. Svensson, E-M. Boundary-work in legal scholarship, in Gunnarsson, Å, Svensson, E-M and Davis, M. (ed.), *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism*, Aldershot and Burlington: Ashgate Publishing, 2013.

[125] See 1.5.1.

[126] See 1.1.

[127] Ibid.

1.6.2 **The critical legal theory connection**

As mentioned already in the introduction, this thesis has a critical orientation. The desire to pursue such a stance connects the thesis to the critical legal tradition. This tradition is generally described as having been prominently carried out through both the British- and American Critical Studies streams (CLS). The Critical Legal Conference (CLC), especially in the European form, is still a highly active conference in its most literal terminology, which takes place once a year in Europe.[128] Other influences of critical legal theory that aligns with the endeavors of posthumanist theory and the critique of liberal humanism and anthropocentrism can also be found in gender/feminist legal studies.[129] Specifically fruitful for this project in relation to both CLS as well as the feminist legal theoretical stream is the engagement with critique as an intrinsic *part of* the engagement with law. As expressed by Costas Douzinas, critical legal theory is indeed at the core, and not a subfield, of *general* jurisprudence.[130] This approach fits well into the attempt of posthumanist theory to place ethics and the identification of affirmative potential of the topic being criticized in alliance with critique. Another way to express this is as Goodrich, that the aim with critique is to pursue a true *love* of law.[131]

What is prevalent in both the case of the current interest of both the European stream of CLC and Law and Gender studies is however that quite little focus is spent on the questions regarding property and the legal power vested in market actors. Instead, the focus is often on questions regarding state power and sovereignty in more general terms,

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[128] Parts of this thesis have also been presented in the stream on *Property as Persons: law, identity, subjectivity, personhood.* 3-5 September, 2015 in Wroclaw, Poland as well as in the stream on *Blockchain Law*, 1-3 September 2016 in Kent, England.

[129] Parts of this thesis have also been presented on the conference on Law's Ability to Produce Gender Equality, 5-6 May, 2015 in Umeå, Sweden.

[130] Douzinas, C., and Gearey, A. *Critical Jurisprudence, the Political Philosophy of Justice.*, Oxford and Portland, Oregon:Hart Publishing, 2005.,

[131] Goodrich, P. *The Critic's Love Of The Law: Intimate Observations On An Insular Jurisdiction*, Law and Critique 10, 1999, **p.** 343–360. See also Lefebvre, A. *The Image of Law,* Stanford: Stanford University Press, 2008, and his take on Deleuzian jurisprudence as opposed to dogmatic law. This note is specifically relevant here as Deleuzian jurisprudence connects closely to posthumanist theory as posthumanist theory is heavily influenced by Deleuze and Spinoza. See chapter two.

nationally and internationally. Furthermore, law in these perspectives is still very much perceived as something textual produced both as legislation, rights and court decisions. In this way, this thesis diverges from the general stream also in its most critical legal theoretical influences. Exceptions to this focus however exist and the most fruitful exception for the case of this thesis has without doubt been the engagement with critical theory from a sociolegal standpoint carried out in the spatiolegal stream.

1.6.3 Spatiolegal theory

In recent years, the field of law and critical geography as a way to think law *through* space and space *through* law has become increasingly made visible and specifically connected to posthumanist theory and its engagements with materiality.[132] These developments may be understood both as connected to and rupturing a stream of legal theory which may be called *spatiolegal*. This stream may be understood to both have affiliation to how law, as discussed by Delaney, Ford and Blomley always to some extent has been connected to space or geography.[133] As further noted by Delaney however, law and geography has now also been pursued as an academic project for at least 20 years. He also notes that this stream of theory makes visible a significant dimension of sociolegal theory connected to matter- as space.[134] Gordon L. Clark further summarizes the stream as one that may be perceived as a critique of the treatment of context in an uncritical way.[135]

Delaney argues that today, this stream may be understood as a trans-disciplinary project, which may be pursued both by legal as well as non-legal scholars. Delaney however also points out that there has been a

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[132] See especially Philippopoulos-Mihalopoulos, A. *Spatial Justice* passim.
[133] Blomley, N., Delaney, D., and Ford, T. R. Preface: *Where is law?* in *The Legal Geographies Reader.* Oxford and Malden: Wiley-Blackwell, 2001, p. xiii.
[134] Questions with regards to ideology, power and disempowerment, legitimation and injustice were researched in a way differing from conventional legal theory, similar to the furthered divergence pursued in human geography. *The Spatial, the Legal and the Pragmatics of World-Making. Nomospheric Investigations,* Abingdon: Routledge, 2011 p. 9-10.
[135] Foreword by Clark, L. G., in Blomley, N., Delaney, D., and Ford, T. R. *The Legal Geographies Reader;* p. xi. Delaney, D. *The Spatial, the Legal and the Pragmatics of World-Making. Nomospheric Investigations* , p. 9-11.

tendency of fragmentation where the work in the field has been carried out in a very archipelagic way. He also argues that a specific challenge within this stream is to find a way to think beyond binary categories such as 'space' and 'law'.[136]A similar point is made by Andreas Philippopoulos-Mihalopoulos in his recent work, *Spatial Justice, Body, Lawscape, Atmosphere* where he furthers that most current theorizations on spatial justice are too *aspatial*. As he furthermore argues, such accounts of spatiality result in the deprivation of the radical potential offered by the understanding of space that have been framed in the field of geography but also e.g. in philosophy, quantum physics, feminism and ecological studies.[137] He furthermore also argues that the spatiolegal stream has been developing in an aspatial manner specifically due to the way that space has been perceived and reproduced in "a narrow, legalistic way as jurisdiction."[138]

As opposed to such problematic positions of law and space as fixed and oriented towards "physical" boundaries, one could attempt to consider the construction of space as a *process.*[139] As noted by Philippopoulos-Mihalopoulos, this understanding of law connects closely to the idea of space as *relational.*[140] A process-oriented view on space however invites to a thinking of space as "fluid, dynamic, ever-changing, a veritable *acceuil* of difference".[141] Such views, he argues, tend to fetishize space[142] as an all-encompassing cure against different "diseases" linked to

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136 Delaney, D. *The Spatial, the Legal and the Pragmatics of World-Making. Nomospheric Investigations* p. 12-13.

137Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 3. The same argument was made already in 2006 by Doreen Massey in *For Space* with regards to the general scientific spatial turn. Massey argues that a potential way out of aspatial notions of space could be to pay more attention to the *relational* construction of space. Massey, D. *For Space,* Singapore: Sage Publications, 2006
e.g. p. 95-98. The idea of what kind of relationality could contribute to the spatial understanding is however not discussed further.

138 Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 25.

139 Henri Lefebvre notably suggested the idea that space is produced relationally already in 1991. See: Lefebvre, H. *The Production of Space,* trans. Donald Nicholson-Smith Oxford: Basil Blackwell, 1991 [originally published 1974 in French]). e.g. p. 31.

140 Ibid.

141 Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 26.

142 Lefebvre, H. *The Production of Space*, on the fetishization of space e.g. p. 90: "(…) instead of uncovering the social relationships (including class relationships) that are latent in spaces, instead of concentrating our attention on the production of space and

social injustice caused by time and history. In Philippopoulos-Mihalopoulos words, these notions of space tend to idealize space in "ways that space cannot sustain".[143] Such process-oriented views of space as well as the spatiotemporal continuum are especially common in discourses of advanced capitalism as regards to the convergence between human and digital bodies as we will see throughout this thesis.[144]

Philippopoulos-Mihalopoulos as well as Delaney suggest that a repositioning of materiality and discursivity in terms of each other "not as opposites but as mutually constitutive" could be utilized to further develop spatial accounts of law.[145] Such ideas of materiality and discursivity is furthermore argued to imply a fusion or at least a parallelist understanding of law as an entangled ontology of material-discursive phenomena.[146]

Delaney therefore also states that in order to develop the spatiolegal theories further, *the legal* also needs to be treated as something that consists of and implicates the "dynamic, reciprocal intertwinements of social imaginaries, with performative and material aspects of reality".[147] Law can in this manner be thought of as something that is continuously done and redone. "The legal is always happening". This happening subsequently occurs in other places and through other matter compared

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the social relationships inherent to it- relationships which introduce specific contradictions into production, so echoing the contradiction between the private ownership of the means of production and the social character of the productive forces we fall into the trap of treating space as space 'in itself', as space as such. We come to think in terms of spatiality, and so to fetishize space in a way reminiscent of the old fetishism of commodities, where the trap lay in exchange, and the error was to consider 'things' in isolation, as 'things in themselves'." and Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 27

[143] Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 27

[144] See e.g. chapter six on service innovation discourses.

[145] Delaney specifically mentions Karen Barad and here accounts of how matter matters. Delaney also points out the importance of foregrounding performativity. He puts forward the work of Karen Barad as being of importance in relation to such pursuits. Delaney, D. *The Spatial, the Legal and the Pragmatics of World-Making. Nomospheric Investigations* p. 14.

[146] C.f. Barad, K. *Meeting the Universe Halfway,* p. 86-87.

[147] Delaney, D. *The Spatial, the Legal and the Pragmatics of World-Making. Nomospheric Investigations*), p. 19

to how one generally perceives of law. [148] In Philippopoulos-Mihalopoulos conceptualization of law as "lawscape" and "atmosphere", the law is specifically understood as continuously spatializing/materializing. As he puts it, law in his theory of spatial justice is a law that "does not dwell on the textual (that too) but expands on the space and bodies that incorporate it and act it out" [149]. Through this understanding, law and matter in the form of space cannot be separated from each other. As he puts it: "They are constantly conditioned by each other, allowing one to emerge from within its connection to the other." [150] This implies that one continuously needs to consider that: "the law is not just the text, the decision, even the courtroom. Law is the pavement, the traffic light, the hoodie in the shopping mall, the veil in the school, the cell in Guantanamo, the seating arrangement at a meeting, the risotto at the restaurant."[151]

The move through and away from spatiolegal theory towards posthumanist theory is therefore significantly when Philippopoulos-Mihalopoulos frames his notion of spatial justice.[152] The potential for posthumanist theory to emerge through, as well as partly against, spatiolegal theory has therefore already been initiated. However, as the interest is directed towards space in spatiolegal theory, the focus is specifically on how space or spatiolegality emerges. A more posthumanist orientation in legal theory could therefore be to pay more attention to *bodies* that become entangled *as* space. As I will explain below, through posthumanist theory, this specifically becomes visible in the manner that bodies are partly understood as having the capacity to connect to other bodies, as larger entanglements, rhizomes, or assemblages.

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[148] Ibid. p. 19 When pursuing the legal in this performative manner, one can not stop by considering "the legal" *as such* performed through doing but also through other acts such as the examples given by Delaney: labor, education, sexuality, religion, science and love. These acts are themselves spatialiazed as they are pursued *through how* the legal is performed and realized.

[149] Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 215

[150] Ibid.

[151] Ibid.

[152] Both Barad and Braidotti may definitely be considered as posthuman thinkers and thus not only as matter-realist. Philippopoulos-Mihalopoulos also directly builds upon both of their ideas when framing his posthuman epistemology, see. *Spatial Justice*, p. 59-65.

Additionally, the posthumanist notion advocated here as well as outlined in the later developments of spatiolegal theory points towards an increased interest in relations and the parallelist folding of ontology and epistemology. This relational concern is in posthumanist theory specifically attached to a certain idea of relationality- one that engages in specific feminist, eco-philosophical and anti-neoliberal ethics.[153] These tools and theories will be made explicit in the subsequent chapter.

1.7 Delimitations

"we are a part of that nature which we try to understand."[154]

This thesis is produced with the effort of following the notion of posthumanist ethics as immanent, or as ethico-onto-epistemological theory, where the entire thesis may be understood as an ethico-politically informed endeavor and thus as a delimitation. Of course, with the equally important delimitation that such conscious delimitation is even possible in relation to the different bodies and forces that push a writer's body in this or that direction. In line with Barad's understanding for objectivity, an ethico-onto-epistemological position can never be about accurate *representation* of objects.[155] Thus, full representation as a means to encompass a picture of the real as something that may be produced from an all-knowing view from afar is refuted as a possibility for this thesis (and all science, for that part).

With this said, one may however still argue that there are a number of formations, topics, bodies etc. that should have not been cut out off from this thesis if it was to fulfill its promise of ethico-onto-epistemology. Some of these are still necessary cuts, and why they have been necessary for the sake of the materiality of this text, are therefore presented here.

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[153] See e.g. 1.1. and 2.4.3.
[154] Barad, K. *Meeting the Universe Halfway,* p. 67
[155] Ibid. e.g. p. 67

1.7.1 Property

As will be obvious as this thesis unfolds, advanced capitalism is here understood to produce a special form of property. I here specifically engage with property in relation to digital technologies. This focus is further narrowed down to practices that put in question the divides between human and digital bodies, as they have commonly been understood in liberal conceptions of property and human subjectivity. With this, I leave out a number of other phenomena, where the combination of an understanding for property and advanced capitalism as well as posthumanist theory could be developed.

The most prominent example, which also has been pointed at by several of the posthumanist theorists, but specifically Donna Haraway, is the practices related to the production of biotechnology and the control over such. Despite the insights of posthumanist theories such as Donna Haraway that all technologies become biotechnologies through advanced capitalism, a legal disciplinary difference is still enacted between biotechnology and digital technology within property law concepts. This divide implies that biotechnologies are generally treated under patent law and digital technologies are generally (but more questionably, due to the large amount of patents on software, in spite of this) treated under copyright law. Thus, biotechnology has in this manner been considered to larger degree as conceptually produced as an "invention", whereas digital technology in the form of code is considered "text" or rather "work" under intellectual property law. This distinction, just like the distinction between different technologies as suggested by Haraway, is however possibly decreasing, as property control is more pervasive under advanced capitalism. This is an issue that has been discussed in general by e.g. the Access to Knowledge Movement[156] but also by e.g. me and doctor Merima Bruncevic elsewhere.[157]

The reason for enacting a cut against biotechnologies understood in such more traditional sense is here however primarily pursued die to

[156]See e.g. eds. Kapczynski, A., and Krikorian, G., *Access to Knowledge in the Age of Intellectual Property*

[157] Bruncevic, M. and Käll, J. *Modern immaterialrätt,* Stockholm: Liber, 2016, chapter four.

the materialistic aim of the text. Taking matter into account on a more detailed level has implied a need to sharpen the focus as much as possible on a specific type of matter. For this reason, I have mainly restricted the elaboration of property under posthumanist theory to "the digital" In the words of Barad: matter matters,[158] and a too large generalization from digital technologies risks opening up for a too large withdrawal from the new materialist and posthumanist challenge encountered here.

1.7.2 *Access* to Knowledge and Technology

Another central delimitation of this thesis is that it does not concern the notion of *access* to any detailed degree. Access as an idea of how to think critically about connections between human and digital bodies has otherwise been produced and utilized specifically to counter excessive commodification of knowledge. This has for example been elaborated in a very useful manner in the anthology on Access to Knowledge (hereafter, A2K) edited by Amy Kapczynski and Gaëlle Krikorian.[159] To large degree, perspectives concerning access to knowledge have framed similar problems as I do here, both with regards to intellectual property and commodification, and the connection that such property production has with other forms of oppressions such as the Western ideas of capitalism and subsequent ideas of mind over body and generally: technological development as societal progress.

The A2K-movement has raised several, and disparate, concerns with regards to the perceived lock-in effects created by intellectual property practices. Generally the movement(s) has aimed at pointing out how knowledge should be understood as a *common resource.* Being *common*, knowledge should therefore be embedded in regimes that make possible a larger amount of access to knowledge and output of knowledge-based products such as medicines, in order to benefit more persons than those

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[158] The exact quote being: "It is vitally important that we understand how matter matters". Barad, K. *Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter*, Signs: Journal of Women in Culture and Society, 2003, vol. 28, no. 3 p. 803.
[159] eds. Kapczynski, A., and Krikorian, G., *Access to Knowledge in the Age of Intellectual Property*

actors that have the resources to protect such knowledge under the laws of intellectual property.[160]

In this thesis, my aim is however to show that the problems of advanced capitalism, anthropocentrism and liberal humanism as identified as negative power regimes in posthumanist theory, make up for a more pervasive critique than as regards to identifying that capitalism encloses knowledge as a commodity. For this reason, it has not been assessed as feasible to consider access as a final solution neither to the commodification of "mind" products that both the A2K and I, through posthumanist theory, identify at this current stage. A significant problem in relation to A2K from a posthumanist perspective is also, as is also self-critically pointed out by Amy Kapczynski, that within the A2K-movement there is a strand of emerging ideology that envisions the movement as a *postideology*, or even as being *postpolitical*. Kapczynski mentions specifically that the free and open-source software movement has been entangled with a "self-styled political agnosticism". Also, she argues that A2K can appeal to "libertarians, liberals, the postsocialist left, and anarchists." In this way A2K may unify forces that are otherwise in opposition to each other.[161]

Kapczynski criticizes such ideas about being able to exceed a traditional divide between :

> (…) classic free-market liberals and the progressive left, that A2K can embrace both the market and the nonmarket, and that A2K advocates need not decide between frames of freedom, justice, or efficiency (…).

However, in spite of this, there is still a tendency in both A2K theorizations as well as otherwise when access is lifted as a solution to advanced capitalism, to treat capitalism as well as property as given factors of the society. This of course goes against any critical perspective and specifically posthumanist theory when considering the effects that

[160] Ibid. p. 17.
[161] Ibid. p. 42

advanced capitalism currently has in producing the human, the inhuman, and the nonhuman *through* property as discussed above.

With this said, I still utilize ideas from this movement to emphasize just points made on commodification of knowledge, and how such points may be understood to produce new forms of entanglements between human and digital bodies, when read against posthumanist theory.

1.7.3 Posthumanist rights

A significant part of this thesis is to address what may be understood as an example of liberal humanist legal conceptions of property. Another example of liberal humanist law addressed by theorists of the posthuman condition, includes the construction of *rights*, and specifically: *human rights*. Rights have, as pointed out by legal professor, Costas Douzinas, also generally functioned as "the" law of the postmodern condition.[162] This becomes specifically visible in how rights have been utilized as a tool to signal that inhuman conditions may be raised to a more human level by granting human rights to an increasingly large number of humans (including animals). Rights are, as pointed by Lefebvre, and Bruncevic, furthermore conceptually connected to the idea of the property-holding person.[163]

For the sake of keeping this thesis more to the point, I have here however focused on the concept of property. I have however also elaborated on this topic in conference papers and presentations with regards to the *Right to Be Forgotten*[164] and will hopefully have a chance to come back to this topic in published text soon.

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[162]Douzinas, C. *The End of Human Rights,* Oxford and Portland Hart Publishing, 2000, p. 1

[162]Golder, B. *Foucault and the Politics of Rights,* Stanford: Stanford University Press, 2015, p. 2.

[163] See Lefebvre, A. *The Image of Law,* p. 85

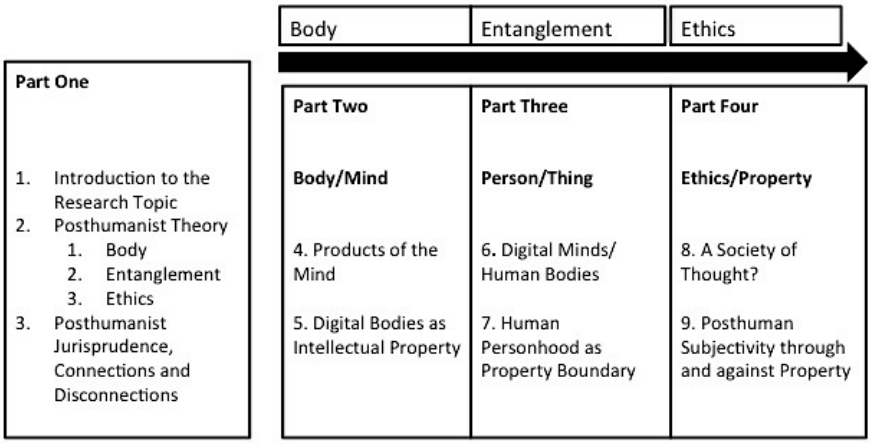
[164] As developed e.g. in the case C-131/12 Google Spain SL, Google Inc. v Agencia Española de Protección de Datos, Mario Costeja González "The Right to Be Forgotten"

1.8 Disposition of the thesis

The disposition of this thesis runs along a theoretical thread based on three tools identified through posthumanist theory: *body*, *entanglement,* and *ethics*. These tools are furthermore utilized in order to challenge two main dichotomies related to liberal conceptual divides of property as an expression of liberal humanist subjectivity: *body/mind,* and *person/thing* in relation to convergences between human and digital bodies. This subsequently results in the exploration of the potential to move through and beyond the liberal conception of property as divided in body/mind and person/thing through posthumanist ethics. This challenge is thus raised as the potential to pass through the divide of *ethics/property*. The dichotomies in turn are explored in relation to a number of cartographies (as discussed above).

With such understanding as a backdrop, this thesis is possible to read both in relation to a thread of questioning of the main dichotomies: mind/body, persons/things, ethics/property; a cartographic stream, and a legal conceptual stream. Apart from this, the thesis may also be understood as composed of four parts. These parts consists of the introduction as a part of its own and the three theoretical tools separate parts. The first part subsequently includes chapter 1-3. The second part is based on the development of the theoretical tool: *body* (chapter 4-5). The third part is based on the theoretical tool: *entanglement* (chapter 7-8). The fourth part is based on the theoretical tool: ethics (chapter 8-9).

In summary, the disposition may be visualized as follows:



The thesis thus starts off with the first chapter, ***Introduction to the Research Topic***, which gives an introduction to the research topic. This chapter gives an overview of why, and how, we today may speak of a rupture in the general divide between human and nonhumans. In concrete, it also narrows down this focus to practices where convergences between human and digital bodies may be expressed. Furthermore, the chapter presents how such break may be made visibilized through posthumanist theory. The focus on property and law is also briefly elaborated. This exposition subsequently introduces how such property and law has been understood under humanist perspectives. With a basis of such understanding, it is also suggested that they need to be understood in new ways in order to explicate convergences between human and digital bodies. The chapter subsequently narrows down the

focus of the thesis to make visible and challenge legal conceptual divides between human and digital bodies as enacted in property law, through posthumanist theory. The thesis is furthermore embedded in three research questions. The questions are all connected to posthumanist theory through three separate posthumanist theoretical tools. These tools are body, entanglement, and ethics. All these tools will jointly aim at pushing the main divide between human and digital bodies in an ethico-political direction as prescribed in posthumanist theory.

Following this, posthumanist theory is presented in more detail in chapter two: ***Posthumanist Theory.*** This chapter briefly introduces the development of posthumanist theory. This includes connecting this stream to the emerging research stream of *New Materialism(s)*. Furthermore some of the historical links between posthumanist theory and mainly French philosophy is explored. In more detail, this focus encompasses a brief introduction to the so-called French readings of the philosopher Baruch Spinoza. As discussed in the chapter, such readings have in modern times, explicit or more implicit, terms been carried out by e.g. philosophers Michel Foucault, Gilles Deleuze, and Félix Guattari. As discussed in chapter two, these theorists are also widely used in posthumanist theory. When these philosophies have been introduced, the chapter furthermore elaborates posthumanist theory into the three tools: *body, entanglement*, and *ethics* as mentioned already in chapter one. These tools will, as discussed in chapter one, have a formative role in how the thesis subject is tackled. The common basis for all these three tools is that they in different ways question the human as an individual, independent, being with a hierarchical status over all other beings (and "non-beings"). The tools subsequently functions as an apparatus for how to make visible as well as further question convergences between human and digital bodies.

The third chapter, ***Posthumanist Jurisprudence, Connections and Disconnections,*** engages posthumanist theory with some more prevalent streams and dichotomies of jurisprudence (legal theory/legal philosophy). The aim with this chapter is thus to explore possible connections and

disconnections of posthumanist theory to legal theory/jurisprudence. Posthumanist theory as well as jurisprudence are widespread theoretical fields. For this reason, it is impossible to give a full representation of any of these streams of thinking. However, in accordance with posthumanist theory this unmanageable burden of giving "full" representation of something is never possible. Following the idea of producing a situated understanding of theory, this chapter is therefore focused on making visible where connections and disconnections between posthumanist theory and jurisprudence can be carried out. This visibilization is furthermore grounded in the ethico-political aim of posthumanist theory as discussed in chapter two.

The elaboration of such connections and disconnection is carried out through utilizing theories of the leading theorist of posthumanist theory today, Andreas Philippopoulos-Mihalopoulos. Furthermore posthumanist theory is being narrowed down here by focusing specifically on Karen Barad's theories. Through this focus, the engagement with posthumanist theory and jurisprudence is delimited to some central dichotomies of dominant legal theories as well as critical jurisprudence. These encounters are further suggested to make visible the opportunity to think of posthumanist jurisprudence as a separate, yet also connected, theoretical endeavor within the discipline of legal theory.

Chapter four, ***Products of the Mind,*** engages with the theoretical tool of the body and opens up for a questioning of the divide between mind/body in relation to human and digital bodies. More specifically, the chapter is focused on considering that, and how, information as a "product" of the mind has been transformed into a commodity. This transformation is here specifically discussed in relation to business, and economic, perspectives of the "knowledge economy" and "innovation". Through the utilization of the body-tool, the chapter visibilizes how these perspectives introduce an increased disconnection between body and mind of humans. This identified disconnection is furthermore articulated to emerge when "the mind" is emphasized in different ways as a business asset. In this manner, it is argued that the discourses further produce a rupture between body and mind of humans. Such theoretical

conceptualization is possible to put into question from the perspective of the body in posthumanist theory as it questions the idea of mind as possible to separate from the body.

However, when thinking through body from a posthumanist perspective- the disconnection between body and mind also makes possible to think of the body as postanthropocentic and in an ongoing production. For this reason, this chapter also argues that even if we may now speak of a disembodiment of the mind from humans, an *embodiment* of mind as *products* also occurs. This kind of embodiment is in chapter four suggested to produce new bodies in the form of *products of the mind.* As is further explored in chapter five, this acceleration of products of the mind as both disconnected from humans and embodied as own commodities, may be made further visible when packaged as digital objects through intellectual property.

Chapter five, ***Digital Bodies as Intellectual Property,*** continues the engagement with the body tool through a focus on how embodification of digital bodies may be visibilized in relation to property theory. As the chapter suggests, this change may be visibilized through following theories and examples where digital technology challenges the idea that intellectual property concerns products of the mind. Through this focus, it is argued that the body concept may be utilized to show, and further interrogate, intellectual property as a property that concerns "knowledge". It is furthermore argued that by utilizing the concept of the body, it is possible to make visible how the assumption of products of the mind as "disembodied" may be put in question. The visibilization of the embodiment of "intellectual" property is furthermore focused on advancements of protection of knowledge as well as technology itself under copyright law. The examples are elected just to show how ambiguous the divide between human knowledge as embodied in humans, and human knowledge as embodied in property, is.

Chapter six, ***Digital Minds, Human Bodies,*** continues the questioning of how connections and boundaries between human and digital bodies are narrated under advanced capitalism. Just like the body/mind divide

functions as a theoretical separation to produce "the human" in a hierarchical sense in relation to other bodies, the persons/things divide has a similar function. The entanglement tool is here used to visibilize how this divide may be put into question in relation to current developments in digital technology. As discussed in this chapter, many human bodies may today be connected to digital technology. Digital technologies are furthermore embedded in narratives of how they have capacities that previously was ascribed exclusively to humans. This chapter therefore utilizes *entanglement* as an alternative to perceiving persons and things as separated through a strict divide. This understanding may subsequently be utilized to further question what a human, and respectively, a nonhuman, body is. The chapter can in this manner be read as a continuation of the business narratives discussed in chapter four.

As also discussed in chapter four and five, from a posthumanist perspective, it becomes possible to show how an increased materialization occurs when human knowledge is perceived as a separate body. Such processes are furthermore connected to how knowledge can be capture through digital technology. These aspects make it possible to think of digital elements as separate (commodfiable) bodies. Such embodification is subsequently a part of advanced capitalism. Chapter six continues this elaboration of advanced capitalism through adding another layer of advanced capitalism as a force that connects several *power regimes*. In posthumanist theory, such power regimes have been discussed both in terms of advanced capitalism and as an *informatics of domination*- a technologically infused regime of *biopower*. This perspective of power is here elaborated to critique the hierarchical control vested in persons over things.

Chapter seven, *Human Personhood as Boundary towards Property* further utilizes the entanglement tool to show how the liberal conceptualization of human personhood as a boundary towards property can be visibilized and questioned. The chapter also continues the elaboration from chapter six of advanced capitalism as a more diffuse form of power. This more diffuse notion of control is made visible

through how e.g. digital "platforms" are constructed. In such platforms, elements that are not generally considered as property are still efficient means to capture digital technology *as* property. This form of control is elaborated in chapter seven e.g. in relation to architectural control pursued through code. The entanglement tool is also specifically utilized to criticize a variety of ways in which it has become difficult to identify something within the binary of property and personhood. In concrete, the chapter discusses how e.g. social media obfuscates this boundary. Furthermore power is elaborated also beyond the perspective of commodification by showing how also e.g. gender may function as an efficient means of control in entanglements between human and digital bodies.

In relation to such examples, it is suggested that boundaries between property and "non-property" needs to be rethought in a manner that has the capacity to make visible what is at stake in the articulation of property. In more concrete, the chapter suggests that Sarah Keenan's concept of property as something that *holds up bodies* may function as a theoretical framework in this direction.

Chapter eight, *A Society of Thought* utilizes the ethics tool to show that convergences between human and digital bodies now may be understood to actualize the potential to question the notion of the human as a thinking being. This visibilization follows the ethico-political tool of posthumanist theory to push the binaries of humanism to an extreme. The idea that humans are just thinking beings further informs the dominating idea of the human as a superior species. Furthermore, the ideology to enhance the capacity for thinking also runs as an implicit thread throughout the encounters with "a knowledge society" as well as "smart things" in this text.

By following the critical, yet affirmative, stance in posthumanist theory, this chapter argues that the focus on innovation, knowledge and technological enhancement presents a unique opportunity to think anew about *thinking*. This chapter subsequently asks the question who- or rather- what will create knowledge when human and digital bodies converge? In remaining with the trouble, the chapter makes visible how

recent ideas of human brain enhancement risks reintroducing the human also when humans are even more deeply connected to artificial intelligence technology. These discussions are compared to how one alternatively think about the focus of knowledge in a more posthumanist sense. As an alternative to hope and fear artificial intelligence, the ethico-political aim of posthumanism is therefore elaborated as a need to "kinnovate". Such kinnovation, it is argued, is specifically concerned with how knowledge may be utilized to create more sustainable entanglements between human and nonhuman bodies.

Chapter nine, *Becoming Posthuman through and against Property* concludes the elaboration of the ethics tool in considering the potential for property when human and digital bodies converge. In more concrete, the chapter does so by summarizing the visibilizations of property made through the body and entanglement tools. In this, it is argued that posthumanist theory has the possibility to make visible new ways to think about the effectuation of control in relation to convergences between human and digital bodies. This is, as argued in chapters five and seven, a form of control that reaches further than the divides within property generally ascribes. In the prolongation, it is also argued that the identification of such control may put in question divides between human body and human mind, as well as person and thing. In accordance with humanist perceptions of property, the lack of such divides may be understood as a threat towards human subjectivity. In relation to posthumanist theory, this may also imply that advanced capitalism is identified as an intense force that hinders connections between human and nonhuman bodies. The chapter therefore argues that one may identify a further, more fundamental, question in relation to property through posthumanist ethics. This is the question if property is at all compatible with the ethico-political aim of posthumanism.

In this chapter, it is argued that this question may not be answered in any general sense at this stage in time. What may be said is however that, through posthumanism, we may think property in a new way. This way implies an understanding of property as a pervasive force in relation to how human and digital bodies converge. The question then becomes

what those who do not thrive under such regime of power may call for. Less property? Law? The chapter subsequently concludes with arguing that what is needed is not so much less property or new laws, as an altogether new understanding of the human *through* digital bodies. And that we do not know what such bodies might do...

2 POSTHUMANIST THEORY

"It is vitally important that we understand how matter matters."[165]

Posthuman theory can generally be understood as a theoretical field that challenges the dominating ideas of what it implies to be human. More specifically, this theoretical development has, as briefly introduced in chapter one, consisted in a questioning of the anthropocentric ideals of liberal humanism in general. It has also prominently (and subsequently) involved enquiries into how the "human body" may be perceived post such ideals.[166]

The discussion about *the posthuman* today spans several different research disciplines. Not the least law, which has been pointed out as producing a specific force in the "killing" of the human.[167]. This thesis engages in, and develops, the posthumanist perspective in relation to the fairly recent theoretical engagements by Donna Haraway, Rosi Braidotti and Karen Barad. As mentioned above[168] their theories are significantly entangled with theorists such as e.g. Gilles Deleuze and Félix Guattari, Michel Foucault and potentially most prominently, Baruch Spinoza, or rather the so-called "French readings" of Spinoza. For this reason, I will here first give a short overview of this connection to these French readings of Spinoza. Following this introduction, I will embark on the more recent theoretical development of what "a posthuman condition", significantly inspired by the French readings of Spinoza, may entail.

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[165] Barad, K. *Posthumanist Performativity: Toward an Understanding of How Matter Comes to Matter*, p. 803.
[166] See e.g. ed. Halberstam, J., and Livingston, I. *Posthuman Bodies* Bloomington and Indianapolis: Indiana University Press, 1995.
[167] MacCormack, P. *Posthuman Ethics, Embodiment and Cultural Theory*. p. 116-117.
[168] See above 1.1. Posthumanism.

Furthermore posthumanism will be discussed and placed within the recent theoretical interest in *new materialisms*. The aim with such discussion is to show how new materialism(s) may be understood as a somewhat broader theoretical stream than posthumanism and why a difference between these streams may matter in relation to this thesis. Subsequently, the focus is narrowed down from a larger new materialist focus towards a specific posthumanist one. From this platform, I will then further develop the posthumanist theoretical tools utilized throughout this thesis: body, entanglement, and ethics.

2.1 The French Readings of Spinoza

Rosi Braidotti has suggested that the link to the French Readings of Spinoza functions as a specifically viable theoretical connection for theorizing the posthuman condition. The reason for this is that Spinozist theory in line with the French readings can be understood to answer several of the challenges of anthropocentrism, advanced capitalism and other power regimes that have been identified to produce the posthuman condition, without again erecting the human at the center.[169] The same link is also suggested and followed by Andreas Philippopoulos-Mihalopoulos.[170] Following their suggestion to further develop posthumanist theory from the French Spinozan connection, Spinoza will here first be briefly introduced before the French readings are explained in a (very) brief way. The aim with this presentation is thus to give some introduction to the aspects of Spinoza and the French Readings of Spinoza that are most relevant to the development of his concepts in posthumanist theory in general, and in more specific, the concepts further developed here.

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[169] See e.g. Braidotti, R. *The Posthuman*, p. 55-57

[170] MacCormack, P. P*osthuman Ethics, Embodiment and Cultural Theory*., p. 1-2; Philippopoulos-Mihalopoulos, A., in *Spatial Justice, p.* 48-51

2.1.1 Spinoza

Baruch Spinoza was born in 1632 into a Jewish milieu in Amsterdam, Netherlands. In his younger years, he combined studies of theology and commerce with working in his father's business. As early on in his life as 1656, he had however already broke his connections to the Jewish community as well as business and become excommunicated.[171]

The meaning of excommunication at that time can be understood as both political and economic. Deleuze further describes this as a measure that was rather frequently applied, as well as often irreversible. Since the community did not have the power of a state, this sanction was the only way that the persons in power in the community could punish those who refused the community order.[172] As Deleuze writes, such excommunication occurred in spite of the fact that the Jewish milieu in Amsterdam at that time was fairly liberal. Spinoza was seemingly judged somewhat harder for being skeptic, possibly due to his unwillingness to repent, and could therefore be thought to have rather sought the break from this milieu himself. From this point, Spinoza appears to have further sought the most tolerant circles where a person such as himself could be welcomed.[173]

In 1670, Spinoza published the *Theological-Political Treatise* without any reference to his name, credited to a non-existing German publisher. However, his authorship is soon revealed. The radicalness of the text provoked immediate disavowal from all the "right-thinking" circles.[174] As Deleuze expresses it:

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171 Deleuze, G. *Spinoza: Practical Philosophy,* p. 5.
172 Ibid. p. 7.
173 Ibid. p. 5-6.
174 Ibid. p. 10.

> "It was then that the words "Spinozism" and "Spinoza" became insults and threats. And even the critics of Spinoza who were suspected of not being harsh enough were denounced."[175]

In 1675, Spinoza attempts to publish the *Ethics* but due the difficult times of war in the Netherlands, he gives up on the idea. However, he continued to think in relation to the problems of the times which Deleuze describes as "What are the chances for a commercial aristocracy? Why has the liberal republic foundered? Is it possible to change the multitude into a collectivity of free men instead of a gathering of slaves?"[176] These questions then furthermore came to inform the *Political Treatise*, which was not unfinished and notably ended with only a beginning of the chapter on democracy.[177] Spinoza dies in February 1677. [178] During his lifetime he authored seven works whereof only two were published before his death. The ones published before his death were *The Principles of Cartesian Philosophy* and *A Theologico-Political Treatise.* Post his death, also A Short Treatise on God, Man and His Well-Being (1660), *On the Improvement of the Understanding* (1662), *A Theologico-Political Treatise* (1670), *Tractatus Politicus* (1677), *The Ethics* (1677), and *Compendium grammatices linguae hebraeae* (1677) were published.[179]

2.1.2 The French Readings

Spinoza's contributions to philosophy today make up a rich field of theorization. As pointed out by Warren Montag and Ted Stolze, the readings of Spinoza may also be understood to have shifted quite significantly over time since the readings of Spinoza could in the seventeenth century be understood in atheist light, in the eighteenth century as pantheist, and in the nineteenth century as monist.[180] However,

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[175] Ibid. p. 10.
[176] Ibid. p. 12.
[177] Ibid. p. 11-12.
[178] Ibid. p. 11.
[179]Montan, C., and Spindler, F. (eds.) *Att läsa Spinoza*, Stockholm: TankeKraft Förlag, 2016 p. 22
[180] Montag, W., and Stolze, T. *The New Spinoza,* Minneapolis: University of Minnesota Press, 1997, p. x.

the so-called French readings of Spinoza today make up a fairly well recognized stream of theory. These readings have recently been discussed (in Swedish) in the anthology by Carl Montan and Fredrika Spindler, Att läsa Spinoza (2016)[181] (Trans. "To Read Spinoza").

As described by Montan and Spindler in the introduction to this anthology, the reasons for why Spinoza has been given much interest in French philosophy are many. To start with, they point out that the rationalist tradition where they place Descartes, Spinoza, and Leibniz, has had a strong foothold compared to the empiricist tradition where they place Hobbes, Locke, and Hume. Furthermore, they attribute the interest in Spinoza in France to the fact that Spinoza wrote in Latin and that this language naturally is close to French compared to e.g. German.[182]

According to Montan and Spindler, what was significant with the readings of Spinoza in France during the 1960's was the way that Spinoza's thought was regarded as having value from an ethico-political perspective. Spinoza was then read in alliance with Marx, Nietzsche and Freud, and the potential to question specific capitalist and moral values. As they further write, Spinoza contributed to the readings of such critical theories specifically in how he emphasized the power of *affects* and how these shape human behavior, political course of events and ethical questions.[183]

In the anthology edited by Montan and Spindler, Antonio Negri specifically suggests five main revisions that separate this understanding from the previously dominating reading of Spinoza.[184]

The first of these revisions consisted on the concept of immanence. As he argues, the reviewed understanding of immanence broke the previous understanding of immanence as something with depth and framed it instead as a surface. Negri describes this in the manner that the "deduction of the world developed by Spinoza was the same as a creation

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[181] Montan, C., and Spindler, F. (eds.) *Att läsa Spinoza.*
[182] Ibid. p. 11.
[183] Ibid. p. 13.
[184] Negri, A. *Spinoza och postmodernisterna,* in (eds.) Montan, C., and Spindler, F. *Att läsa Spinoza*

of the world."[185] Deleuze expresses the role of immanence in Spinozan thought e.g. in the manner that:

> "the modes of different attributes have not only the same order and the same connection, but the same being: they are the *same things*, distinguished only by the attribute whose concept they involve. Modes of different attributes are one and the same modification, differing only in attribute. Through this identity of being or ontological unity, Spinoza refuses the intervention of a transcendent God to make each term in one series agree with a term in the other, or even to set the series in agreement through their unequal principles."[186]

The second revision concerned a questioning of that which is generally referred to as rational and ethical. In relation to rationality, this revision concerned a disconnection of this concept from all metaphysical assumptions that this concept previously had held.[187] As an example of the difference between Spinozan ethics and morality, Deleuze mentions Spinoza's example of Adam and his consumption of the forbidden fruit. This scene is often interpreted as if God exactly has forbidden Adam from eating the fruit. In such frameworks, the communication between God and Adam in relation to the apple is an expression of a prohibition. However, in the interpretation of Spinoza, this scene, should, according to Deleuze, instead be understood as:

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[185] My trans from: "Den deduktion av världen som Spinoza utvecklade var samma sak som ett skapande av världen." Negri, A. *Spinoza och postmodernisterna,* in (eds.) Montan, C., and Spindler, F. *Att läsa Spinoza,* p. 274.

[186] Deleuze, G. *Expressionism in Philosophy: Spinoza,* New York: Zone Books, 1992 [originally published 1968 in French]). p 109

[187] Negri, A. *Spinoza och postmodernisterna,* in (eds.) Montan, C., and Spindler, F. *Att läsa Spinoza*, p. 274.

> "(…) an instance of an encounter between two bodies, whose characteristic relations are not compatible: the fruit will act as a poison; that is, *it will determine the parts of Adam's body* (and paralleling this, the idea of the fruit will determine the parts of his mind) *to enter into new relations that no longer accord with his own essence*."[188]

As mentioned, the information that the apple is poisoned is however generally interpreted as if God morally forbids Adam to do something. In the Spinozan interpretation of the situation it should then instead rather be understood as a revelation by God to Adam about the natural, harmful, consequence from eating the fruit.[189] The idea of ethics can in this manner be understood as situated[190] and as a form of ethics that does not operate with a singular idea of "the good". Rather, it is engaged with understanding the effects between different affects that causes specific productions of bodies, that may harm or not harm, each specific body. This kind of ethics is furthermore not invested in a humanistic understanding of what is good for *bodies,* as this would imply a preconception of what a body is. Or in other words, if one would assume that apples are always harmful to all bodies due to the fact that they are apples, this would assume that a specific form of a body, and a specific form of effect of consuming a specific thing, is bad for all bodies. Instead, what Deleuze arguably points at is that some encounters between some bodies, causes harm to the (said) bodies. Whether this is good or bad is then dependent on whether it can be assessed that this encounter produced a specific effect (evaluated from a specific situated perspective). By such understanding, however, one might argue that Spinozan ethics implies a relativist and individualist ethics, as it will be focused on each individual maximizing its own bodily strength.[191]

The third revision concerned the politics. This implied a new understanding of the concept of democracy, which argued that it could

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[188] Deleuze, G. *Spinoza*, *Practical Philosophy*, p. 22
[189] Deleuze, G. *Deleuze: Spinoza*, *Practical Philosophy,* p. 22.
[190] C.f. on situatedness above: 1.5.1.
[191] C.f. Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 1

only be understood in an entirely immanent character. In this manner sovereign power could afterwards only be understood in the form of the democracy of the multitude or in the form of "the common interests of all individuals and their absolute self governance, individuals who, while in the search for their own desires are moved towards the creation of the common".[192]

As an example of this implicit community in the Spinozan body concept, e.g. Pierre Macherey notes that the Spinozan body concept, in relation to its ethical endeavor, may be, and indeed has been interpreted as being, in coherence with an endeavor of self-preservation vested in the idea of Western civilization where bourgeois, religious and philosophical conflicts between bodies are rendered silent. As he continues, if individuality is understood in this way, it may be understood as a typical expression of the self-interested, self-possessive individualism, under which rationality subordinates itself a purpose of dominance and in this way is subordinated an abstract and calculating model of rationality.[193]

However, he further notes, the entire definition of individuality or rather "*conatus*," for Spinoza is to remain in its being. This, Macherey continues, applies for *everything*, and not only the human individual. This implies that each thing makes its outmost to remain in its innate existential and productive power. Macherey continues with pointing out that this therefore necessarily implies that this endeavor, far from letting the individual sink into itself and the egoistic picture of its identity, as if this could imply an autonomous reality, instead implies that what applies to the humanity in general also applies for each individual human. This implies that each individual is thrown out towards all other forms of existences that make up the principle of its organic and intellectual

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[192] My trans from: "Om man fortfarande kunde tala om suerän makt så var det bara i form av multitudens demokrati, eller snarare som alla individers gemensamma och absoluta självstyre, individer som medan de söker sina begär förs mot skapandet av det gemensamma." Negri, A. *Spinoza och postmodernisterna,* in (eds.) Montan, C., and Spindler, F. *Att läsa Spinoza,* p. 274.

[193] Macherey, P. *Spinozas filosofiska aktualitet: Heidegger, Adorno, Foucault,* in (eds.) Montan, C., and Spindler, F. *Att läsa Spinoza,* p. 31.

development through which it literally is connected to nature in its entirety, for which the nature is solely an individual expression.[194]

The fourth revision was metaphysical and theological. This may be described as an "integrated humanism" or a "cosmic ecosophy". Such conceptualization can according to Negri be understood as a way to see that "in a world of indefinite wealth of constituting articulations, there was no longer room for a before or after, for a transcendental divinity or for a kingdom with transcendental goals, which could be placed beyond the existence of the creative experiences."[195]

The fifth and final revision of Spinoza identified by Negri was the new reading concerning the idea of materialism. In the French reading, matter ceased being a concept for context. Instead matter was read as the constituting process of desire, as "an always open and changing tonality which was the consistency of movement."[196] Negri also expresses this in the manner that:

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[194] Closely referencing the following quote by Macherey in Swedish: "Enligt själva definitionen av *conatus* är självbevarelse, för Spinoza, i själva verket att "förbli i sitt vara". Det gäller för varje ting – och inte enbart den mänskliga individen- att detta ting anstränger sig till sitt yttersta för att förbli i sin inneboende existens- och verksamhetskraft. Denna strävan, långt ifrån att låta individen sjunka in i sig själv och i den egoistiska bilden av sin identitet, som om denna kunde utgöra en autonom verklighet, *tanquam imperium in imperio* – för denna formulering som gäller för människan i allmänhet gäller *a fortiori* varje enskild människa- låter snarare individen kastas ut mot andra existensformer som utgör principen för dess organiska och intellektuella utveckling varigenom den bokstavligt talat förknippas med dessa former. Genom dessa förmedlingar binds den så samman med naturen i sin helhet, för vilken individen enbart är ett unikt uttryck." Macherey, P. *Spinozas filosofiska aktualitet: Heidegger, Adorno, Foucault,* in (eds.) Montan, C., and Spindler, F. *Att läsa Spinoza,* p. 31.

[195] My trans from: "I en värld bestående av en oändlig rikedom av konstituerande artikulationer, fanns det inte längre utrymme för ett före eller efter, för en transcendent gudomlighet eller för ett rike med transcendentala mål, som skulle kunna placeras bortom de kreativa erfarenheternas existens." Negri, A. *Spinoza och postmodernisterna,* in (eds). Montan, C., and Spindler, F. *Att läsa Spinoza,* p. 274-275.

[196] My trans from: "en alltid öppen och föränderlig tonalitet som var rörelsens konsistens." Negri, A. *Spinoza och postmodernisterna,* in ed. Montan, C., and Spindler, F. *Att läsa Spinoza* p. 275.

> "[m]atter was viewed from below, within the creative movement which constituted the world and through this was perceived as the pattern itself for transformations in the world. The classical mechanics was in this way transformed when it was taken up within the materialist genealogy of Spinoza towards a changeable perception of the universe."[197]

All these revisions can be understood to lead towards the construction of a new, immanent, ontology.[198] He also expresses this in the manner that:

> "The affirmative image does not unveil any illusory horizons, but offers a still confidence for what will come, what rests on eternity. With Spinoza's glasses we regard the world with the tranquility, which the desire for eternity awakes in the soul of all living beings. The force of desire can be placed against a power that reduces life to a spectacular shine."[199]

To conclude, Negri argues that what the readings of Spinoza by e.g. Deleuze creates is the allowance to live in "this" world- not the world characterized by the so-called "death of ideologies" and "the end of history"- but as a world to create again.[200]

Implicit in this understanding is also a new understanding of how power shapes both subjectivity and community. Power is here specifically expressed in the Spinozan terminology of both *potestas* and *potentia.* This

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[197] My trans from: "Materien sågs underifrån,, inom den kreativa rörelse som konstituerade världen, och togs därigenom för själva mönstret för förändringar i världen. Den klassiska mekanismen förvandlades således när den togs upp inom Spinozas materialistiska genealogi till en föränderlig föreställning av universum." Negri, A. *Spinoza och postmodernisterna,* in ed. Montan, C., and Spindler, F. *Att läsa Spinoza.* 275.

[198] Negri, A. *Spinoza och postmodernisterna,* in (eds.) Montan, C., and Spindler, F. *Att läsa Spinoza,* p. 275.

[199] My trans from: "Varandets affirmativa föreställning avslöjar inga illusoriska horisonter, men erbjuder ett stilla förtroende för det som komma skall, det som vilar på evigheten. Med Spinozas glasögon betraktar vi världen med det lugn som begäret efter evigheten väcker i själen på alla levande varelser. Begärets kraft ställs mot en makt som reducerar livet till ett yttre spekulärt sken." Negri, A. *Spinoza och postmodernisterna,* in ed.

[200] Negri, A. *Spinoza och postmodernisterna,* in (eds.) Montan, C., and Spindler, F. *Att läsa Spinoza,* p. 277.

briefly implies that one thinks of power as something that has both a restrictive (*potestas*) and productive (*potentia*) side.[201] As Deleuze expresses this in *Spinoza: Practical Philosophy:*

> "One of the basic points of the Ethics consists in denying that God has any power (potestas) analogous to that of a tyrant, or even an enlightened prince. God is not will, not even a will enlightened by a legislative intellect. God does not conceive possibilities in his intellect, which he would realize through his will. The divine intellect is only a mode according to which all consequences follow from his essence or from that which he comprehends. So he has no *potestas* but only *potentia* identical to his essence. Through his power, God is also the cause of all things that follow from his essence, and the cause himself, as it is involved by his essence."[202]

The concepts of potestas and potentia may in the French reading furthermore also be understood as connected to the idea of *biopower.*[203] As discussed by Alexander Carnera, this can be formulated as an ambivalence of the concept of biopolitics. He formulates this ambiguity as "power over life[204] and "the life as power."[205] As will become obvious throughout this thesis, this understanding of power is specifically prevalent in posthumanist theory as it produces an opening to think differently about the human and the world post the human. The connection between subjectivity, community and power as "biopower" will therefore here be expressed continuously in the manner that power is read both as a negative force that destroys worlds inhabited by both human and non-human bodies and as an affirmative force that through such destruction also radically rearranges the idea of what a body can be and become. This conceptualization of how power rearranges the liberal

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[201] Braidotti, R. *The Posthuman,* p. 26 c.f. Deleuze, G. *Spinoza: Practical Philosophy,* p. 97-104.
[202] Deleuze, G. *Spinoza: Practical Philosophy,* p. 97.
[203]C.f. Foucault, M. *Birth of biopolitics, Lectures at the Collège de France 1978-1979.* (ed.) Snellart, M. Trans. Burchell, G. New York: Palgrave Macmillan, 2008.
[204] "Magten over livet" Carnera, A. *Magten over livet og livet som magt. Studier i den biopolitiske ambivalen* Copenhagen: CBS Copenhagen Business School, 2010, p. 15
[205] "Ibid. p. 15

humanist subject is furthermore directly engaged in providing a ground for open up a way to live in the world, in what can be theorized as *the posthuman condition.*

2.2 The Posthuman Condition

The theorization of the posthuman has, as introduced above, significantly concerned a questioning of dominating understandings of subjectivity and community *through* the idea of the body. A way to situate this questioning is through the power regimes that have been identified as challenging just how subjectivity and community is being produced amongst bodies. The link between bodies and power is furthermore intrinsic to pursuing a posthumanist theory affiliated to the French readings of Spinoza such as those by Deleuze and Guattari and Foucault as I will theorize further below.[206]

Rosi Braidotti has suggested that "the posthuman" therefore may be used as a navigational tool to theorize further what such change of subjectivity and community may entail.[207] As an entrance point, Braidotti suggests that posthumanism can be understood as a convergence between anti-humanism and postmodernism on the one hand and post-anthropocentrism on the other."[208]

Halberstam and Irvington also marks the connection between posthumanism and:

[206] See below 2.1.
[207] Braidotti, R. *The Human/Inhuman Symposium: Rosi Braidotti,* available on Youtube, online, accessed 2 April 2017. The terminology of posthumanism has recently been criticized by Donna Haraway. Haraway, D. *Staying with the Trouble*, p. 13. I agree with this critique yet do not think that it really hits the posthumanist stream I (or Rosi Braidotti for that part) is advancing here.
[208] Braidotti, R. *The Human/Inhuman Symposium: Rosi Braidotti.*

> "[p]ostmodernism, poststructuralism, postcolonialism, postindustrial capitalism: the proliferation of academic "post-isms" and posthumanism through the role they have/had in pointing out aspects that are both always simultaneously premature and old news."[209]

Braidotti furthermore outlines the connections and disconnections between posthumanist theory and previous theoretical lines through four "plateaus". These different plateaus can be understood as a map that gives an overview of which theories that currently informs the posthuman condition.[210]

2.2.1 Plateau one

The first plateau takes as a starting point the common postmodernist claim that Western culture thrives on the myth of the beginning of man and that in the beginning there was a He, the first image, a man. Braidotti attributes this to the line from Protagoras that formulates man as the 'measure of all things' to Leonardo da Vinci's Vitruvian man. As she puts it, what is common for this idea tradition is that it continuously produces a very specific understanding of what it is to be human. Braidotti further argues that these ideals belong to the specific construction of *humanism* as

> "a doctrine that combines the biological, discursive and moral expansion of human capabilities into an idea of teleologically ordained, rational progress."[211]

Thus, of central importance to the humanistic ideal is the belief in rationality and inherent moral of the *Human*. This ideal, modeled on Antiquity as well as values stemming from the Italian Renaissance, has, as

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[209] Halberstam, J., and Ira Livingston, I. *Introduction: Posthuman Bodies,* in ed. Halberstam, J., and Livingston, I. *Posthuman Bodies*, p. 3.
[210] See e.g. Braidotti, R. *The Human/Inhuman Symposium: Rosi Braidotti.*
sAs discussed by e.g. Bruncevic, Deleuze and Guattari introduce the concept of the "plateau" in order to make visible how different theoretical assemblages all produce aspects of how the studied object. Bruncevic, M. *Fixing the Shadows,* p. 66
[211] Braidotti, R. *The Posthuman,* p. 13.

she points out functioned as a standard both for humans as well as human cultures.[212] Postanthropocentrism can according to Braidotti furthermore be understood as an added intensity of *anti-humanism,* which is advanced through posthumanist theory.[213]As she explains, this focus can be understood to advance a more wide critique of the centrality of the human as compared to e.g. previous critiques that broadly may be characterized as anti-humanism. Braidotti argues that this is the case since post-anthropocentrism on the other hand engages with science and technology studies, new media and digital culture, environmentalism and earth-sciences, bio-genetics, neuroscience and robotics, evolutionary theory, critical legal theory, primatology, animal rights and science-fiction in a manner which anti-humanism did not.[214] Furthermore, she argues that postanthropocentrism can be understood to take a distance from the human to an intensified degree as it aims at leaving the idea of taking human *species* as the point of departure for theory as well as world-making.

This in turn must be understood as a very radical take vested in posthumanism alone since, as noted by Braidotti, in humanism, there is not even a way to talk about different *species*. As she argues, the discussions within humanism as well as the humanities have centered on the themes put forward by René Descartes, Karl Marx, Sigmund Freud and Friedrich Nietzsche but not necessarily those put forward by Charles Darwin. Braidotti therefore argues that, in the humanities, one is not even able to think "the animal," or anthropomorphism. One just has not learned to think without the centrality of anthropos.[215]

2.2.2 Plateau two

The second plateau is as Braidotti explicitly puts it, an important node of her critical theory of *the posthuman* as it begs to consider that the

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[212] Ibid. p. 14-15.
[213] Braidotti, R. *The Human/Inhuman Symposium: Rosi Braidotti*
[214] Braidotti, R. *The Posthuman,* p. 58
[215] Braidotti, R. *The Human/Inhuman Symposium: Rosi Braidotti.*
As Braidotti further argues, the mantra of critical therefore goes"I am against capitalism, yeah, I am against social injustices, yeah, I am against heteronormativty, yeah I am against war, yeah, I am against the human species. ops" *The Human/Inhuman Symposium: Rosi Braidotti.*

posthuman condition as being post *human* rings false to those who were never human to begin with. And consequently, are still not, (considered to be) human. At least not:

> ”if by ’human we mean that creature familiar to us from the Enlightenment and its legacy: ”The Cartesian subject of the cogito, the Kantian ”community of reasonable beings”, or in more sociological terms the subject as citizen, rights-holder, property-owner, and so on.”’[216]

As Braidotti further points out, this pledge of allegiance to the human species even goes as far as to the construction of ”a fundamental notion of Rights around the Human”.[217] Furthermore, the Western world has established a right to move freely in order to produce labor possibilities at the same time as this has increased insecurity with regards to labor to an intensified degree. As Wendy Brown expresses this:

> “(...) both persons and states are construed on the model of the contemporary firm, both persons and states are expected to comport themselves in ways that maximize their capital value in the present and enhance their future value, and both persons and states do so through practices of entrepreneurialism, self-investment, and/or attracting investors.” [218]

This has furthermore the consequence that, as Nedelsky puts it: “perhaps we live with knowledge that for some, there is no community, only an indifferent collectivity.”[219] As an example, just consider the sense of inhumanity that surrounds the notion of the human at this current stage where boarder controls hold human lives at bay to “protect” humanist Europe.[220]

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[216] Braidotti, R. *The Posthuman,* p. 1
[217] Ibid.
[218] See e.g. Brown, W. *Undoing the Demos,* New York: Zone Books, 2015.p. 22.
[219] Nedelsky, J. *Law's Relations: A Relational Theory of Self, Autonomy, and Law*, New York: Oxford University Press, 2011, p. 24.
[220]Esposito, R. *Persons and Things,* p. 33.

For this reason, Braidotti argues that a more critical theory of the posthuman condition needs to be developed. And she furthermore argues that this role cannot be carried out by humanism (alone) as it, in Braidotti's words, has become over-inflated and excludes too much- even in extended versions.[221] The posthumanist endeavor is therefore a theoretical practice that engages in ways to open up for the potential to run with the wolfs, the bacteria,[222] or as Donna Haraway puts it: "make kin, not babies!"[223]

2.2.3 Plateau three

A third plateau is by Braidotti furthermore made visible in the need to connect the posthuman to the force of, and relations advanced by, *advanced capitalism.* As she argues, it is also due to advanced capitalism that the posthuman *subject* needs to be understood as technologically mediated to a very large degree.[224] Technoscientific culture is furthermore constructed on the convergence between biotechnology and information technology.[225] This is specifically visible in how the scientific field of *bioinformatics* now is emerging.[226] Braidotti argues that this plateau of the posthuman condition implies a substantial level of *inhumanity*.[227] The point that Braidotti specifically makes in relation to this plateau is thus

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[221] As noted by Karen Barad, like other existentialist philosophers, Simone de Beauvoir's theory of the subject has been criticized for its humanist orientation and thus, lack of non-essentialist conceptions of men and women. Barad, K. *Meeting the Universe Halfway,* p. 45.

[222] As Braidotti expresses her own desire for the posthuman in *The Human/Inhuman Symposium: Rosi Braidotti*,

[223]Haraway, D. *Staying with the Trouble*, p. 102.

[224] Braidotti, R. *The Posthuman,* p. 57.

[225] *The Human/Inhuman Symposium: Rosi Braidotti*, Online

[226] See e.g. the description for the Masters program in Bioinformatics at Uppsala University: " The Master Programme in Bioinformatics is designed for those of you who wish to focus on the exciting interdisciplinary field of bioinformatics, which combines computer sciences, mathematics and biology. Uppsala University possesses exceptional competence in bioinformatics and computer sciences. The tools and knowledge you will acquire as a student in this programme are central elements in many areas of research, such as studying the function of human hereditary characteristics or developing new types of pharmaceuticals." Online: http://www.uu.se/en/admissions/master/selma/program/?pKod=TBK2M

[227] Braidotti, R. *The Posthuman,* e.g. p. 9

that the potential to govern life as part of advanced capitalism, stretches also to the control of, and increased exercise of power over, *death*. As Braidotti further points out, in the post Cold War there has been both a dramatic increase in warfare as well as a transformation in how war is being carried out. Thus, wars have now become intensified to a degree where they have reached a new level of administering which bodies and populations that may be destroyed. [228]

2.2.4 Plateau four

As a fourth plateau of the posthuman condition, Braidotti argues that we need to consider new ways to *visualize subjectivity*. The anti-humanism put forward by Braidotti specifically implies an objection to the unitary subject of humanism. Instead, she suggests that the subject of humanism should be replaced by a "(...) more complex and relational subject framed by embodiment, sexuality, affectivity, empathy and desire as core qualities." [229] The posthuman in this vein therefore needs to be directly linked to the understanding of how the power that all bodies exercise in the everyday network of social relations both at micro- and macro-level happens and is produced. Braidotti then specifically argues that this is an understanding that needs to be produced in relation to the frustration about the "all too human" of the posthuman to this stage.[230]

Apart from the previous plateaus, the last plateau also appears to open up for a new form of ethics and political connection to the posthuman condition. The potential of a different ethics however also lingers in the entire posthuman theoretical endeavor, which Braidotti engages with, as she herself makes explicit in several instances, not least in relation to the consideration of the possibility to actively construct/affirm different new forms of posthuman *subjectivities*. This focus on a specific form of posthumanist ethics is furthermore not only connected to Braidotti's idea of the posthuman which has mostly been

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[228] Ibid. p. 8-9. See also e.g. Lindholm-Schulz, H. *Krig i vår tid,* Stockholm: Studentlitteratur, 2001 and Kaldor, M. *Nya och gamla krig* Göteborg, Daidalos Förlag, 2000.
[229] Braidotti, R. *The Posthuman,* p. 26,
[230] Ibid. p. 12

discussed so far, but is also discussed by e.g. Karen Barad, Patricia MacCormack, Kathrin Thiele and Carey Wolfe amongst others.[231] All these theorists may also be perceived as falling within the theoretical stream of new materialism(s), which can be said to partly answer some of the problems outlined as a "posthuman condition" by Rosi Braidotti.

2.3 New materialism(s) and posthumanism

The posthumanist perspectives I make use of here have recently been theorized under the broader theoretical stream of new materialism(s)[232] or matter-realism.[233] As described by Dolphijn and van der Tuin, "new materialism(s)" (herafter I will refer to the stream as new materialism for the sake of simplicity) has recently started to become discussed as a specific field of theory. They further note that the turn towards new materialism has been most significant in cultural and feminist theory where the publications have been growing during the last years.[234] Dolphin and van der Tuin suggest that some of the most important writers of new materialism are Manuel DeLanda, Quentin Meillassoux, Karen Barad and Rosi Braidotti as well as what they call "the Utrecht School", where Dolphin and van der Tuin themselves are located.[235] In the anthology on new materialism edited by Coole and Frost, apart from themselves, Jane Bennett, Pheng Cheah, Melissa A. Orlie, Elisabeth

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231 Barad, K. *Meeting the Universe Halfway;* MacCormack, P. P*osthuman Ethics, Embodiment and Cultural Theory*; Wolfe, C. *What is Posthumanism?* p., xiii-xiv

232 Dolphijn, R, and van der Tuin, *Pushing dualism to an extreme: On the philosophical impetus of a new materialism*; Coole, D., and Frost, S. *Introducing the New Materialisms*, p. 5, in (eds.) Coole, D. and Frost, S. *New Materialisms, Ontology, Agency, and Politics*. Durham and London: Duke University Press, 2010. As argued, by Ansell-Pearson Deleuze utilized this terminology for his theoretical endeavors: Ansell-Pearson, K. *Deleuze and New Materialism: Naturalism, Norms, and Ethics*: Accessed at Academia: https://www.academia.edu/20063620/Deleuze_and_New_Materialism_Naturalism_Norms_and_Ethics

233 In accordance with Braidotti, other authors that can be argued to be pursing this kind of reasoning are Keith Ansell-Pearson, Karen Barad, Brian Massumi, Elisabeth Grosz, Claire Colebrook, Jane Bennett, Patricia Clough, and John Protevi. Braidotti, R. *The Posthuman,* p. 158

234 They refer specifically to e.g. Coole and Frost (2010; (eds.) as examples to this trend. Dolphijn, R, and van der Tuin, *New Materialism: Interviews & Cartographies*, p. 16.

235 Dolphijn, R, and van der Tuin , I. *New Materialism: Interviews & Cartographies*.

Grosz, William E. Connolly, Rosi Braidotti, Rey Chow, Sara Ahmed, Sonia Kruks and Jason Edwards all have made their own contributions.[236]

In another anthology on new materialism from 2010, Coole and Frost attempt to capture what can be said to constitute new materialism as a new potential field. According to them, there are three imperatives for reconsidering materiality, which makes the case for new materialism as a new field. First, they pinpoint that of great importance is that there has been a significant advancement in natural sciences during the twentieth century. They furthermore argue that these developments have rendered traditional materialist theorists difficult to apply as they themselves were significantly influenced by scientific developments of how to consider matter in *their* times.[237]

Second, Coole and Frost argue (just like Braidotti in relation to the fourth plateau of the posthuman condition) that another imperative for developing materialist theory as a new stream, is that ethico-political concerns of these times specifically as regards to technological development requires improved theorization.[238]

A third reason for turning to, and developing, new materialist theory according to Coole and Frost, is to respond to an experienced lack of steam in radicalism in dominant discourses under the so-called *cultural turn.* [239] More specifically, they argue that this implies a critique towards the scientific turn where it is argued that the social constructivist orientation that has dominated social analysis is not enough to consider matter and politics today.[240] In this manner, this field is well aligned with the problems of a human-centered worldview identified by Rosi Braidotti.[241]

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[236] Coole, D. And Frost, S. (eds.) *New Materialisms, Ontology, Agency, and Politics.*
[237] Ibid.
[238] Ibid. p. 5
[239] Ibid. p. 6
[240] Ibid. p. 6.
[241] See above 2.2.1., plateau one. I will also develop this idea further in relation to the concept of the body below, 2.4.1. Braidotti also herself specifically argues thae affiliation to this stream in her theory as: "What is clear is that by the mid-1990's the differences among the various strands and branches of the post-structuralist project were becoming more explicit. The hegemonic position acquired by the linguistic branch—developed via psychoanalysis and semiotics into a fully-fledged deconstructive project that simply

New materialism can according to e.g. Dolphijn and van der Tuin furthermore be described as a movement of thought that pushes traditional dualisms to an extreme, as a difference pushed to the limit, or as a way to show how difference is shown differing.[242] As they furthermore argue, this endeavor implies that one cannot take the traditional dualisms of Western thinking, such as mind versus body "as predetermined relations".[243] As discussed in relation to the French readings of Spinoza, such movement towards difference may be understood as intrinsically linked to how individuality is always linked to community in such understandings of the body. Therefore, the point is to continuously push binaries in a direction, which produces increased difference, is also affiliated to the posthumanist endeavor pursued here.

From the introduction to both the posthuman condition, and new materialism, significant similarities can be distinguished between these descriptions of current problems in society as well as in theory. One might therefore ask if there is any significant difference between the emerging stream of new materialism and posthumanism and then, why one should, as I have done here, opt for the latter.

The reason why I have here elected the terminology of posthumanism rather than new materialism for this text will therefore here be briefly clarified by situating new materialism and posthumanism in a wider theoretical discussion. To start with, the newness of *new materialism* can be questioned, as there arguably is moments already in the theory developed by Deleuze where his theories may be perceived as new materialist.[244] However, the emergence of new materialism still appears to currently function as a valuable theoretical development, not the least

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conquered intellectually the United States—intensified the need for clearer terms of demarcation and of theoretical definition. Thus "neo-materialism" emerges as a method, a conceptual frame and a political stand, which refuses the linguistic paradigm, stressing instead the concrete yet complex materiality of bodies immersed in social relations of power." Dolphijn, R., and van der Tuin, I. *New Materialism: Interviews and Cartographies. Interview with Rosi Braidotti*, p. 21.

[242] Dolphijn, R, and van der Tuin, *Pushing dualism to an extreme: On the philosophical impetus of a new materialism*. See also Coole, D., and Frost, S. *Introducing the s*, p. 7-15, in eds. Coole, D. And Frost, S. *New Materialisms, Ontology, Agency,*

[243] Dolphijn, R, and van der Tuin, *Pushing dualism to an extreme: On the philosophical impetus of a new materialism*,.

[244] Ansell-Pearson, K. *Deleuze and New Materialism: Naturalism, Norms, and Ethics.*

in feminist theory, as the new materialism network lead by e.g. van der Tuin gathers many researchers yearly for a conference on new materialism.[245]

A more noteworthy difference within new materialist stream and posthumanism affiliated to French Spinozan reading may however lie in the possibility to think human responsibility beyond humanism. In relation to this, e.g. Ansell-Pearson has argued that the Deleuze's reading of Spinoza, while flattening out the privileged position of the human versus the nonhuman does not take away the specific position that the human has in relation to her capacity to be responsible for other life-forms.[246] According to Braidotti the move towards visualizing new subjectivities as part of a response to the posthuman condition needs to be understood just as such form of ethics with a radical edge, which is shared primarily with feminist (specifically queer and intersectional feminist theories), post-colonial, critical race and postmarxist theories.[247] In this way, posthumanist theory in this sense aims at offering another view of society/societies than the most dominant political theory of current times.[248]

In this thesis, the term posthumanism is mainly used to point out a differing theoretical affiliation from the points in the general traditions discussed. What is notable in the posthumanist vein of new materialism is that it is significantly focused on a collapsing distinction between the human and its *others* caused by *modernism* and *humanism.* The others of the human are in line with such theory those that have suffered from being perceived as the outsiders, the negative side of the dichotomy of the modernist (white, heteronormative, male) subject.

A difference between Karen Barad and Rosi Braidotti compared to other new materialist theorists such as DeLanda and Meillassoux is also noted by Dolphijn and van der Tuin in the way that:

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[245] See e.g. conference on new materialisms in Poland 2016 and the up-coming conference in Paris 2017.
[246] See Ansell-Pearson, K. *Deleuze and New Materialism: Naturalism, Norms, and Ethics.*
[247] See e.g. Barad, K. *Meeting the Universe Halfway,* p. 25
[248] Braidotti, R. *The Posthuman* p. 188.

> "[w]hereas Barad and Braidotti work towards a new materialism that is immediately ontological, epistemological, and ethical, DeLanda and Meillassoux seem to be more interested in the ontological, either at the expense of an immediate or simultaneous interest in epistemology and ethics (DeLanda) or by leading up to epistemological questions of the classificatory kind (Meillassoux)."[249]

Within frameworks of object-oriented-ontology, one, just like in the posthumanist ontology, breaks with binarization of matter in a way, which may be called monist. Timothy Morton for example aims at starting from the object, and in more specific those viscous, nonlocal, temporally and spatially different objects, which he refers to as *hyperobjects,* when elaborating a new for of ecologically aware ethics beyond the anthropocene.[250] Another prominent example is the Actor Network Theory (ANT) developed by Bruno Latour. As he himself puts it in *Reassembling the Social, An Introduction to Actor-Network-Theory*:

> "[t]he argument [of this book] can be stated very simply: when social scientists add the adjective 'social' to some phenomenon, they designate a stabilized state of affairs, a bundle of ties that, later, may be mobilized to account for some other phenomenon."[251]

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[249] Dolphijn, R, and van der Tuin , I. *New Materialism: Interviews & Cartographies*, introduction, p. 16. As noted by the authors however "This reading (…) would itself be classificatory, and would divide the terrain to an extent that may overstate differences and overlook similarities. Meillassoux produces a new materialism (a "speculative materialism") that radicalizes the relation between epistemology and ontology, thus producing a new materialism that can access the in-itself. Similar to the projects of the three other interviewees, it is especially a subjectivism (also known as a social constructivism, a linguistic idealism, or an identity politics) that is qualitatively shifted in the anti-anthropocentric work of Meillassoux. Here a "realism" is brought forward that intends to do justice to matter and the contingency of nature most radically, while stressing the limitlessness of thought."

[250] Morton, T. *Hyperobjects*, e.g. p. 1-4.

[251] Latour, B. *Reassembling the Social, An Introduction to Actor-Network-Theory* Oxford University Press, New York, (2005) US, p. 1.

In the field of feminist science studies, ANT methodologies have been criticized as a theory that assumes gender as well as fixates dynamics in networks as unproblematic conceptualizations. As Gill and Grint argue, by applying ANT as a methodology, one cannot account for why some assemblages are more stable than others and why some agents are disconnected.[252] Philippopoulos-Mihalopoulos also points out that there is always a risk in engaging with object-oriented ontologies in a manner, which treats objects as some kind of pure phenomena.[253] This kind of critique is possibly partly refuted by Latour in the manner that he continues to describe the argument of ANT as that there is nothing wrong with the word social:

> "as long as it designates what is already assembled together, without making any superfluous assumption about the *nature* of what is assembled together. Problems arise, however, when 'social' begins to mean a type of material, as if the adjective was roughly comparable to other terms like 'wooden', 'steely', 'biological', 'economical', 'mental', 'organizational', or 'linguistic'. At that point the meaning of the word breaks down since it now designates two entirely different things: first, a movement during a process of assembling; and second, a specific type of ingredient that is supposed to differ from other materials."[254]

Haraway also argues that Latour's theory can be understood to make possible an understanding of science and technology as sources of power implying that we therefore need fresh theories for analysis and political action. Haraway points out that some of the rearrangements of race, sex, and class rooted in high-tech enabled relations can make socialist-feminism more relevant for effective progressive politics.[255]

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[252] Gill, R., and Grint, K. *The Gender-Technology Relation: an Introduction,* p. 21. In Gill, R., and Grint, K. (eds.) *The Gender-Technology Relation: Contemporary Theory and Research.* London: Taylor & Francis, 1995.
[253] Philippopoulos-Mihalopoulos , A. *Spatial Justice* p. 5
[254] Latour, B. *Reassembling the Social, An Introduction to Actor-Network-Theory*, p. 1.
[255] Haraway, D. *Sitiated knowledges*, footnote 2, in *Simians, Cyborgs, and Women. The Reinvention of Nature*, p. 248.

However, the risk is as specifically pointed out by Philippopoulos-Mihalopoulos also that one risks loosing out on important understandings of how the world is being produced in the sense of power, if one is to "study" how bodies become assembled together. The reason for this is that this dissimulates the one studying matter and her power to make cuts in the material/objects studied and described. In order to understand matter, one can therefore not study it without theories about power as this would reinstate the view from afar, and the neutrality of the researcher.[256] A starting point of significant importance for this thesis is the understanding that advanced capitalism is involved in the convergences between human and digital bodies. For this reason, the theorists I focus on here are also those that in more concrete provided frameworks for how to perceive of, and counter, such capitalist forces in relation to other power regimes related to the liberal humanism.

This implies that they offer a framework to make visible forces specifically related to property within such discipline. In this manner, they also make it possible to provide a situated account of the convergences between human and digital bodies. Apart from contextualizing their theories in relation to high-technology and advanced capitalism, they furthermore also develop ways to think differently about these forces. In this manner, they also work towards the radically democratic- or ethico-political- focus which the French readings of Spinoza points at. Such ethical engagements are, as soon will be discussed,[257] at the heart of interests of *general jurisprudence,* why those authors have been chosen for further focus here. However, as posthumanism shares theoretical space with new materialism to quite a considerable degree, I will also make use of (new) new materialist theory in general.

[256] See above, 1.5.1. about situatedness.
[257] See 3.2.2, 3.2.3 and 3.4.2. and 3.4.3.

2.4 Conceptual apparatus: body, entanglement and ethics

The focus of this thesis is, as discussed in chapter one, the convergences between human and digital bodies. The occurances as well as the centrality of such convergences are both identified as part of the posthuman condition as suggested by Braidotti.[258] Such convergences will here be specifically mapped and challenged in relation to two specific binaries that underlie the dominating perception of the human under liberal humanism and capitalism. As discussed in chapter one, these binaries are the body/mind dichotomy and the person/thing dichotomy.[259] The challenging of such binaries in order to move beyond the ideology which produce subjectivity in a humanist, anthropocentric understanding, is furthermore directly linked to the ethic endeavors identified both in posthumanist and new materialist theory.[260] In order to put the theories in use in relation to challenge the specific binaries of interest in this project further, these theoretical aims have been further developed as three theoretical tools: body, entanglement, and ethics.

These tools are here explored in more close connection to the theories used by leading theorists of (and beyond) posthumanism: Braidotti, Barad and Haraway. These concepts in turn build upon Deleuzian, Foucauldian as well as Spinozan theory (not exclusively but significantly) why I also utilize theories by those philosophers to further develop the posthumanist theories for the sake of constructing my theoretical tools.[261]

The relation between posthumanist theories and a Spinozan understanding of the body is both prevalent and quite different from how one generally perceive of the body. As discussed above[262] entering into the concept of the posthuman body through Spinoza implies that

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[258] See above 2.2.3.
[259] See chapter one, e.g. 1.4.
[260] See above.
[261] See about the explicit link to these theorists e.g. at Braidotti, R. *Inhuman Symposium-Rosi Braidotti.*
Barad, K. *Meeting the Universe Halfway,* e.g. p. 46.
[262] See above, 2. C.f. Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 5

the works on Spinoza conducted by Deleuze such as *Spinoza: Practical Philosophy* (1970) and *Expressionism in Spinoza* (1992) as well as *Pure Immanence: Essays on A Life* (1005) are of specific interest. For this reason, also the literature that considers the body concept in Deleuze is also very much relevant to the development of the Spinozan body concept in relation to posthumanist theory. Such development has been carried out by Deleuze, not only in his works explicitly dedicated to Spinoza, but also in his works together with Félix Guattari, e.g. in *A Thousand Plateaus* (ATP).[263]

The further development of the tools in relation to such theorists is partly pursued here and partly pursued in relation to the chapter in which each tool is most predominantly put into use.[264]

2.4.1 Body

For posthumanist theorists, an increased focus on materiality implies to attempt to find a potential in considering bodies that traditionally have been divided into matter-non-matter such as nature/culture, human/technology and subject/object as *unified* variations of intensities instead of as representations on either side of a dichotomy built upon the body/mind distinction.[265] The first theoretical tool of my elaboration of posthumanism here is the concept of the *body*. The centrality of thinking the body, for posthumanist theory was identified already in the collection of essays named *Posthuman Bodies* from 1995 edited by Halberstam and Livingston.[266] What this concept therefore implies in connection to the Deleuzian-Spinozan vein is that "a body can be anything: it can be an animal, a body of sounds, *a mind or idea:* it can be a linguistic corpus, a

[263] Guillame, L., and Hughes, J. (eds.) *Deleuze and the Body*. Edinburgh: Edinburgh University Press, 2011.

[264] The chapter is thus intentionally kept at a theoretical level with very few examples connected to the thesis, as the aim is that these tools will unfold throughout the text as the tools are put into contact with the cases and legal theoretical discussions.

[265] C.f. e.g. Philippopoulos-Mihalopoulos, A. *Lively Agency: Life and Law,* p. 193

[266] In the introduction to that collection, it is argued that [p]osthumanities emerge (...) out of a disenchantment that is both anti-aesthetic and anti-scientific. It is in a volatile market that the medical/aesthetic disciplinary monopoly on "the body" is being challenged. Halberstam, J., and Ira Livingston, I. *Introduction: Posthuman Bodies,* in (eds.) Halberstam, J., and Livingston, I. *Posthuman Bodies*, p. 1.

social body, a collectivity".[267]

This concept of the body in this manner relates specifically to posthumanist theory as it functions as an exploration of new materialist boundaries, which avoids the divide between binaries of matter. Examples of such binaries are e.g. body/mind and persons/things binaries. The critique of the mind/body divide can in posthumanist theory be connected to the critique of social constructivist theory that, according to posthumanist theorists has been too occupied with language and thus forgotten about (other) materialities.[268] The concept of the body in the Spinozan vein needs however, in spite of its focus on matter, not be understood as a full displacement of mind to an all encompassing idea of matter as replacing mind. Instead, as Deleuze points out, one can think of the body/mind-dichotomy in Spinoza rather as a form of parallelism between matter-idea where both continuously affect each other yet whereas none is positioned in front of the other.[269] Another way to express this is that one regards the body as well as the mind as parallel[270] and excessive in relation to each other.[271] As Deleuze argues:

> "(...) one of the most famous theoretical thesis of Spinoza is known by the name of parallelism; it does not consist merely in denying any real causality between mind the mind and the body, it disallows any primacy of the one over the other. If Spinoza rejects any superiority of the mind over the body, this is not in

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[267] Deleuze, G. *Spinoza, Practical Philosophy*, p. 127 Philippopoulos-Mihalopoulos, A. *Lively Agency: Life and Law in the Anthropocene*, in (ed.) Braverman, I. *Animals, Biopolitics, Law,* p. 193. My emphasis.

[268] C.f. Barad, K. *Meeting the Universe Halfway,* p. 133 and Braidotti, R, *The Posthuman,* p. 30.

[269] Deleuze, G. Deleuze: Spinoza, *Practical Philosophy,* p. 18.

[270] Deleuze warns against using "parallelism" as a description of what Spinoza aims at, however by arguing that "(...) one should be wary of the word "parallelism," which employs it on his own account to designate such a correspondence between autonomous or independent series. (...) If the word "parallelism" does adequately characterize Spinoza's philosophy, it does so by itself implying something beside a mere identity of order, something beside a correspondence. And it does so also because Spinoza is not satisfied with this correspondence or this identity as definition of the link that unites modes of different attributes." Deleuze, G. *Expressionism in Philosophy: Spinoza,* p. 107 References omitted from quote.

[271] Deleuze, G. *Expressionism in philosophy: Spinoza,* p. 109.

> order to establish a superiority of the body over the mind, which would be no more intelligible than the converse."[272]

Therefore, as Deleuze argues, when considering the body as pursued in Spinozan thought, it does not mean that one automatically devalue the importance of thought. Rather, it implies a renewed understanding of thinking as something that is an extension of the body, but also an indeterminacy of thought due to this connection. Spinoza expresses this in the Ethics e.g. in the manner that:

> "[b]ody cannot determine mind to think, neither can mind determine body to motion or rest or any state different from these, if such there be."[273]

One can thus derive from this that body and mind is excessive to each other as well as generally indeterminate. The indeterminacy of matter is specifically related to how ethics is articulated in such theory as well as in a posthumanist sense as will be furthermore explored separately below.[274] Thus, a form of "*unconscious of thought* just as profound as *the unknown of the body*."[275] This conceptualization of the body is arguably radical in many ways. One of the ways is that it places the body in a processual understanding where its boundaries are fluctuating due to its activity/activism. In the words of Deleuze:

> "Spinoza offers philosophers a new model: the body. He proposes to establish the body as a model: "We do not know what the body can do… This declaration of ignorance is a provocation. We speak of consciousness and its decrees, of the will and its effects, of the

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[272] Deleuze, G. Deleuze: Spinoza, *Practical Philosophy,* p. 18. C.f. Deleuze, G. *Expressionism in Philosophy: Spinoza*: "(...) Spinoza refuses any analogy, any eminence, any kind of superiority of one series over another, and any ideal action that presupposes a preeminence: there is no more superiority of soul over body, than of the attribute of Thought over that of Extension." p. 109.

[273] Spinoza, B. *Ethics,* Charles Town: Jefferson Publication, US 2015, [originally published 1677 in Latin] p. 51 (part III, prop. II).

[274] See on ethics below 2.4.3.

[275] Deleuze, G. Deleuze: Spinoza, *Practical Philosophy,* p. 19

> thousand ways of moving the body, of dominating the body and the passions – "*but we do not even know what a body can do.*"[276]

This implies that there is a continuous need to consider what and how bodies can move or navigate through (and as) environments. Specifically, this implies an interest in power regimes as determining boundaries of bodies. In posthumanist theory this can be noticed in the manner that several posthumanist theories engage in a rewriting of materiality as a response to forms of power that hinder such materialities to take place.[277] As an example of a posthumanist rewriting of materiality, one can e.g. consider the cyborg as a concept or rather, a figure, in Haraway's take on it. We will get back to exploring the possibilities of the cyborg in relation to this thesis further below.[278] However, to put it shortly, the cyborg may be understood both as a figuration affected by and with a capacity to affect advanced capitalist power production, specifically related to high-technological forms of such capitalism.[279] Such posthumanist notion of the body therefore invites to a methodology that both has the capacity to criticize the workings of bio-power at the same time as it sees the potential in *technoscientific*[280] modifications of the ontological status referred to as bodies.[281]

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[276]Deleuze, G. Deleuze: Spinoza, *Practical Philosophy,* p. 17-18.

[277] C.f. e.g. the concept of the Chthulucene in Haraway, D. *Staying with the Trouble,* p. 30 and below under Entanglement.

[278] Not the least in chapter eight.

[279] The technical, organic, political, economical, dreamlike, and textual in material-semiotic practices and entities in the late-twentieth century technoscience have been informative of the Harawayan formations. As an example, she refers to the end-of-the-millennium seed, chip, gene, datation as cyborg figures as "the offspring of impolisions of subjects and objects and of the natural and artificial". She also notes that cyborgs might benefit from being thought not so much as "life" as this concept connect to notions of developmental and organic temporalities. Instead, a better way to frame the cyborg is inhabitation of life itself where the temporalities should be understood as embedded in communications enhancement and system redesign. In this notion, life itself becomes "life, enterprised up, where in the dyspeptic version of the technoscientific soap opera, the species becomes the brand name and the figure becomes the price."
Haraway,D. *Modest_Witness@Second_Millennium.FemaleMan©_Meets_Oncomouse™,* p. 11-12.

[280] Ibid. p. 3-4.

[281] Haraway, D. *Simians, Cyborgs, and Women: The Reinvention of Nature*, p. 180

The engagement with the concept of the body in posthumanist theory can furthermore be traced to several different theoretical streams besides the explicitly Deleuzian-Spinozan one. As noted by Dolphijn and van der Tuin, in new feminist materialisms, the engagement with matter is specifically linked to a rewriting of modernity.[282] The engagement with the body therefore also draws upon the thread of works of Judith Butler and specifically her works *Gender Trouble* (1990) and *Bodies that Matter* (1993). As noted by Dolphijn and van der Tuin, these books in turn both build upon the insight of Simone de Beauvoir in *The Second Sex* (1949) as Butler shows that sex is socially constructed.[283] Thus, also female and male bodies are socially constructed. Butler acknowledges the socially constructed part of sex as "gender".[284]

Butler's earlier works have however been criticized partly by new materialist theorists together with other theories where a socially constructed notion of sex has been accused of increasing the separation

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[282] See above on new materialism and posthumansim and *Pushing dualism to an extreme: On the philosophical impetus of a new materialism*.

[283] A similar point can be traced to Donna Haraway as she notes that most feminist theory that builds upon a sex/gender distinction is connected to de Beauvoir's theory on the construction/socialisation of sex, Haraway, D. '*Gender' for a Marxist Dictionary: The Sexual Politics of a Word* in *Simians, Cyborgs, and Women. The Reinvention of Nature.*, p. 131

[284] Butler, J. *Bodies that Matter,* Oxon and New York, Routledge, 2011. She has also discussed the potential for taking the body concept, or rather her concept of performativity related to the body or matter, also to political theory. In her recent book, *Notes Toward a Performative Theory of Assembly,* she specifically mentions the Deleuzian notion of the body as a potential way to consider how bodies can be considered to always have both individual and communal characteristics. Specifically, she therefore utilizes the body concept, if not directly inspired at least very similar to the new materialist and posthumanist understandings of the body, to develop the concept of "precarity" as identity. When she does so, she points at what can be considered a form of specifically fragile ontology vested in those persons who have become precarious through different forms of neoliberal and/or advanced capitalist power regimes. As she notes, such occurrences of fragility, differ from how previous forms of capitalism produced oppression as capitalism itself has become much more complex and global. An analysis of oppression that takes the current production of power into account, therefore necessarily needs to be intersectional as this is how advanced capitalism function. In such manner, instead of talking about the working class, or the proletariat, as a group in which fragile bodies are produced due to capitalist oppression, Butler frames the precarity as a potential form of alliance between those bodies that suffer from advanced capitalism. Butler, J. *Notes Toward a Performative Theory of Assembly,* Cambridge: Harvard University Press, 2015 p. 68 and passim

between matter and a *socially* constructed sex. For instance, Barad has argued that making too strict of a divide between matter and social construction may limit the disruptive potential of feminism. The reason for this, she argues, is that the gender/sex divide tends to de-naturalize gender at the same time as the concept of the body is turned in to a stable matter without any performativity of its own.[285] Colebrook further discuss this in relation to the earlier theorizations of the body as being too concerned with embodiment and linguistics as a mean to produce a better conceptualization of how bodies have been produced. [286] Specifically she argues that both in feminist criticism and beyond, the body was primarily a literary and rhetorical problem. Even in cases where this was used as a means to turn towards the body, she argues that this was mainly done with regards to examining how the body had been textually produced.[287]

Important to note is that this is not a claim *against* the notion that "the social" is constructed, or that language matters in the construction of materiality.[288] However, Haraway argued already in 1991 that Marxist oriented feminist theory lacked some potential to consider materiality as much more interfolded with linguistics (also from the point of matter) when tracing the meaning of gender and its reliance on a nature/culture divide.[289] In this manner, such theories may be criticized for following right into the logic of thinking of the rational Cartesian (male) subject, which is extensively criticized in feminist theory.[290] Butler has herself also

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[285] Barad, K. *Meeting the Universe Halfway* p. 34-35

[286] Colebrook, C. *Time and Autopoiesus: The Organism has No Future,* in (eds.) Guillaume, L. and Hughes, J. *Deleuze and the Body,* p. 13.

[287] Ibid.

[288] C.f. Philippopoulos-Mihalopoulos,A, *Spatial Justice,* p. 25

[289] Haraway, D. '*Gender' for a Marxist Dictionary: The Sexual Politics of a Word* in *Simians, Cyborgs, and Women. The Reinvention of Nature.*, p. 136. "So, the ongoing tactical usefulness of the sex/gender distinction in life and social sciences has had dire consequences for much feminist theory, tying it to a liberal and functionalist paradigm despite repeated efforts to transcend those limits in a fully politicized and historicized concept of gender. The failure lay partly in not historicizing and relativizing sex and the historical-epistemological roots of the logic of analysis implied in the sex/gender distinction and in each member of a pair."

[290] Dolphijn, R, and van der Tuin, *Pushing dualism to an extreme: On the philosophical impetus of a new materialism*,

addressed this critique in her rewriting of *Gender Trouble* into *Bodies that Matter*.[291]

2.4.2 Entanglement

The body concept in posthumanist theory is also produced as a critique of the possibility to perceive of individuals as being distinct from the environment in which they appear (or disappear). The relational ontology, which has already been at least hinted at, through the presentation of the conceptualization of the body, is a specific and important part of the posthumanist theory. This engagement in understanding how bodies assemble (or not) is here referred to as *entanglement*. Barad expresses the notion of entanglement as a part of materiality in the manner that:

> "Differentiating is not about othering or separating but on the contrary about making connections and commitments. The very nature of materiality is an entanglement. Matter itself is always already open to or rather, *entangled with*, the "Other." The intra-actively emergent "parts" of phenomena are co-constituted. Not only subjects but also objects are permeated through and through with their entangled kin; the other is not just in one's skin, but in one's bones, in one's belly, in one's heart, in one's nucleus, in one's past and future."[292]

In this manner, *relationality* is thus placed in posthumanist theory as a way being that bodies (or phenomena in the quote) cannot escape. As Philippopoulos-Mihalopoulos puts it, in line with these theories "(...) there can no longer be a pre-given boundary between a body and its environment."[293] This understanding also folds back to the conception of assemblage or *agancement* in the theories by Deleuze and Guattari, strongly

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[291] Barad, K. *Meeting the Universe Halfway,* p. 61 quoting Butler, J. *Gender Trouble* (1990) see also, Butler, J. *Bodies that matter.* New York. 2011, Introduction xi-xx
[292] Barad, K. *Meeting the Universe Halfaway, p.* 392-393.
[293] See e.g. Philippopoulos-Mihalopoulos, A. *Lively Agency: Life and Law in the Anthropocene*, in ed. Braverman, I. *Animals, Biopolitics, Law,* p. 199.

affiliated to the idea of the body in Spinoza.[294] As Philippopoulos-Mihalopoulos puts it:

> "[t]he whole point of assemblages is that they are bodies in themselves (perhaps larger and more complex but still bodies) that necessarily include their "environment," whether "natural" or otherwise. A body is an assemblage of various conditions and materialities."[295]

The more deeply relational understanding of being in the world/as part of the world may furthermore be made more explicit in relation to how the Spinozan body concept may be understood as a relation of an inner and outer determination as advanced by Fredrika Spindler. According to Spindler, one can understand Spinoza's body concept as a determination on two levels. First, then this perception of the body implies an "inner determination" and second, and "outer determination".

The inner determination occurs in a relation between the "own power" and the power of the nature- substance- or environment.[296] This implies that the body, or the specific inner spirit of an individual, is to be understood as a precise, "almost molecular",[297] composition of power.[298] Deleuze expresses this in the manner that a body in this manner needs to

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[294] See on the notion of assemblages and link to the Spinozan body concept e.g. in Deleuze, G and Guattari, F in *A Thousand Plateus,* p. 296-304

[295] See e.g. Philippopoulos-Mihalopoulos, A. *Lively Agency: Life and Law in the Anthropocene*, in ed. Braverman, I. *Animals, Biopolitics, Law,* p. 199.

[296] Spindler, F. *Spinoza, Multitud, Affekt, Kraft.* Munkedal: Glänta Produktion, 2009. p. 145-146.

[297] "närmast molekylär" Spindler, F. *Spinoza: Multitud, Affekt, Kraft.* p. 145-146.

[298] Spindler, F. *Spinoza: Multitud, Affekt, Kraft*, p. 145-146. This episode reads closely on Spindler's writing in Swedish: "Determineringen ligger i det här fallet på två olika plan. I första hand handlar det om en inre determinering, i förhållandet mellan den egna kraften och naturens – substansens- eller omvärldens kraft. På ett sätt som till stor del ter sig främmande för den västerländska, judisk-kristna teologiskt influerade filosofin, är människan inte ett fritt subjekt med egen utformad identitet och metafysiskt fri vilja, utan hos både Spinoza och Nietzsche snarare en specifik intensitetsvariabel inom naturens immanenta kraft: en precis – närmast molekylär – sammansättning av kraft, som utgör individens specifika väsen. Utifrån denna intensitet kommer individen att förhålla sig på ett specifikt, givet sätt till naturen. Härigenom leds vi till den andra determineringen, som är yttre: genom att *vara* ett visst mått av kraft eller intensitet kommer varje individ att förhålla sig på ett visst sätt till alla andra individer."

be understood as composed by an innumerable amount of particles. And it is the composition between such particles, their rest and motion, their speeds and slownesses, which defines a body and separates it as an individual body. [299]

As Spindler further elaborates the body concept, through the composition of power or intensity, *the individual* will relate to *the nature* in a given way. This is thus the relation to the second determination, which is what Spindler refers to as the "outer determination". [300] This determination implies that through *being* a *specific measure of force or intensity*, every body will relate in a specific way to other bodies. [301]

Colebrook advances a similar understanding when arguing that the body in this sense can be understood in the manner that:

> "A social machine occurs when flows of desire are given relative stability (...). Body parts are always virtual before they are actual; the organized organism (...) is the result of a history of coordinations and stabilised relations." [302]

As a consequence of this, she argues that only if one acknowledges the role of the body in politics, can one start to think the body in the Deleuzian sense. As she continues, "[t]his means stepping back from *the* body to think the composition of organic powers, powers of organs and

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[299] Deleuze, G. Spinoza och vi, p. 51-52., in ed. Montan, C., and Spindler, F. *Att läsa Spinoza.*

[300] Spindler, F. *Spinoza: Multitud, Affekt, Kraft*, p. 145-146.

[301] Ibid. This episode reads closely on Spindler's writing in Swedish: "Determineringen ligger i det här fallet på två olika plan. I första hand handlar det om en inre determinering, i förhållandet mellan den egna kraften och naturens – substansens- eller omvärldens kraft. På ett sätt som till stor del ter sig främmande för den västerländska, judisk-kristna teologiskt influerade filosofin, är människan inte ett fritt subjekt med egen utformad identitet och metafysiskt fri vilja, utan hos både Spinoza och Nietzsche snarare en specifik intensitetsvariabel inom naturens immanenta kraft: en precis – närmast molekylär – sammansättning av kraft, som utgör individens specifika väsen. Utifrån denna intensitet kommer individen att förhålla sig på ett specifikt, givet sätt till naturen. Härigenom leds vi till den andra determineringen, som är yttre: genom att *vara* ett visst mått av kraft eller intensitet kommer varje individ att förhålla sig på ett visst sätt till alla andra individer."

[302] Colebrook, C. *Time and Autopoiesus: The Organism has No Future,* in eds. Guillaume, L. And Hughes, J. *Deleuze and the Body,* p. 12

not the organism."[303] Furthermore, thinking of the body as both possibly open as well as partly closed off in terms of an outer determination of a body can be expressed in the manner that Colebrook expresses it in the following:

> "A completely closed body that had no world would be deprived of the means of ongoing life; an absolutely open body without border would not be a body at all, would have no ongoing identity. What is required, then, is a border or membrane that enables communion with an outside, but an outside that is always outside *for* this bounded body, and that is managed so as to produce only the alteration or perturbation required for ongoing self-maintenance."[304]

As noted by e.g. Dolphijn and van der Tuin, the interest in relationality in new materialist theory also folds into other theories that start from the relation. [305] Such endeavors have e.g. resulted in critiques of liberal humanism and its idea of individualism through a restricted understanding of individualism. [306] Theories related to what is here referred to as *the posthuman condition* push these notions of relationality even further, and aligns the need to do so in relation to current developments in society. Donna Haraway e.g. frames the need for a more relational, or "tentacular" thinking in questioning what today even remains of "human exceptionalism" and "bounded individualism" as "old saws of Western philosophy and political economics".[307]

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[303] Ibid.
[304] Ibid. p. 16
[305] As an example new feminist materialist theorists have furthermore pointed to the dangers in traditional (radical and queer) feminist theory by arguing that the conceptualization of gender is structured by a negative relationality (distribution and asymmetry) between men and women, masculinity and feminity. Instead the new feminist materialist stream has argued for a "univocal" sexual difference, which "allows sexual difference to differ" Dolphijn, R, and van der Tuin, *Pushing dualisms to an extreme: On the philosophical impetus of a new materialism*, p. 133
[306] Haraway, D. *Staying with the Trouble,* p. 30
[307] Haraway, D. Ibid. p. 30

In order to counter for such non-relational perspectives vested in capitalism (or "the *Capitolocene"* [308] and anthropocentrism (or "the *Anthropocene"),* [309] she suggests the concept of the *Chthulucene*. She frames this concept with the figure of the spider, *Pimoa cthulhu*. Further building the myth on this being in order to think the tentacular she adds that this spider is a being:

> "[w]ho lives under stumps in the redwood forests of Sonoma and Mendocino Countries (...). This spider is in place, has a place, and yet is named for intriguing travels elsewhere. (...) The eight-legged tentacular arachnid that I appeal to get her generic name from the language of the Goshute people of Utah and her specific name from denizens of the depths, from the abyssal entities, called chthonic. (...) Making a small change in the biologist's taxonomic spelling, from cthulhu to chthulu, with renamed Pimoa *chthulu* I propose a name for an elsewhere and elsewhen that was, still is, and might yet be: the Chthulucene. I remember that *tentacle* comes from the Latin *tentaculum*, meaning "feeler," and *tentare,* meaning "to feel" and "to try"; and I know that my leggy spider has many-armed allies. Myriad tentacles will be needed to tell the story of the Chthulucene."[310]

Braidotti also argues that one can speak of the utilization of a matter in a relational perception as "a new kind of eco-sophical unity". [311] She also develops this thought directly through an example of how it can be used to bridge an inside/outside idea of an individual by arguing that this unity can be compared to "the animal and its planetary habitat."[312]

Entanglement in the posthumanist vein is furthermore specifically concerned with the focus on non-linearity.[313] Coole and Frost attribute the necessity to thinking in non-linear ways as regards to new materialism

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[308] Haraway, D. Ibid. p. 47-51
[309] Haraway, D. Ibid. p. 44-47
[310] Haraway, D. Ibid. p. 31. References omitted from quote.
[311] Braidotti, R. *The Posthuman*, p. 92.
[312] Ibid.
[313] See e.g. Ibid. p. 169.

to e.g. the shift in science away from Newtonian physics.[314] This has implied a larger focus on complexity and chaos as well as the unpredicitbility of how different bodies affect each other. Coole and Frost argue that one specifically can detect a posthumanist aspect in the move towards such understandings of the unpredictability of matter as "material agency" implies that the human-based agency necessarily is diminishing. [315] The focus on non-linearity again also connects posthumanist theory very much to Deleuzoguattarian theory as well as Deleuze's readings of Spinoza. More specifically, this connection can be found in the discussions about networks, assemblages, rhizomes and similar, which are also put into specific use in Braidotti's posthumanist theory.[316]

2.4.3 Ethics

The third tool of posthumanism that I will make use of here is a specific form of posthumanist *ethics*. A starting point for addressing the need for ethics in the posthumanist vein is, as discussed above,[317] that we are now situated in a specific posthuman condition where a number of negative intersecting power regimes.[318] As opposed to the general critique towards postmodernism and deconstruction, the posthumanist theorists are not devoid of the tendency of taking a specific stance with regards to e.g. which bodily productions are desirable in relation to encounters between different forces. This form of ethics is produced continuously in posthumanist theory both in relation to thinking through materiality and in specific- to think it in an entangled manner. However, what sets posthumanist theories apart from other theories where such emphasis is

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[314] As an example on this shift they mention that in the 1970's scientists became more concerned with nonlinear dynamic systems that seemed structured but yet inhabited a degree of uncertainty. Coole, D., and Frost, S. *Introducing the New Materialisms*, p. 13, in eds. Coole, D. And Frost, S. *New Materialisms, Ontology, Agency, and Politics*

[315] Ibid. p. 14,

[316] This can furthermore be understood as a form of negative cosompolitanism as discussed above with regards to the posthuman plateaus, as well as in Braidotti, R. *The Posthuman*, p. 96.

[317] See on the posthuman condition above, 2.2.

[318] See e.g. above on the different plateaus of the posthuman.

also carried out, is, as discussed above,[319] the specific focus to continuously move towards *difference* against dominating ideologies. In the case of posthumanist theory, as discussed continuously, this is specifically made against the backdrop of moving away from the materialities that are entangled with anthropocentrism and advanced capitalism.[320] For this reason, just as identified in the French readings of Spinoza, the concept of ethics in the posthumanist sense is placed within the very interest of materiality and entanglement.

This can be explained e.g. in the manner that function in Deleuzian theory has been addressed as something that does not always cause good effects.[321] This is specifically important to stress in relation to the focus of this thesis, as connectivity between human and digital bodies is generally perceived as something *intrinsically* good for society.[322] Considering entanglement as a posthumanist tool therefore advances the effort to consider *how* bodies continuously are being produced as different forms of connections and how they are sustained and others are destroyed. This elaboration therefore has the purpose to specifically contribute to an understanding based in new materialism on how power and its effect produce bodies, identities, and subjectivities. This way to forward, and think ethics is in the words of Braidotti, specifically a way to counter techno-optimism as well as fear of technology.[323] This implies that the ethics is connected directly to the understanding of bodies as well as movements and entanglements. In philosophical terms, this has been understood as a conceptualization of posthumanist ethics as necessarily *immanent* rather than a *transcendent* form of ethics, morals, and values.[324] Braidotti as well as e.g. Patricia MacCormack explicitly position

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[319] See 2.3.

[320] C.f. above, 2.2.3, and 2.2.4.

[321] Deleuze, G., and Guattari, F. *A Thousand Plateaus,* p. 5-11.

[322] See e.g. Zizek, S. *Organs without Bodies*, *On Deleuze and Consequences,* Oxon and New York: Routledge, 2012, p. 171.

[323] This indeed aligns posthumanist ethics strongly to the immanent take on ethics/politics as described in the French readings of Spinoza above, 2.1.

[324] It can be discussed whether immanence and transcendence are really opposites. As Fredrika Spindler discusses in her treatment of Deleuze's philosophy, these concepts appear to play a much more complex role than being mere opposites. "Immanensen kan (...) förstås på spinozistiskt sätt, som det som är gränslöst (...), eftersom det inte finns

posthumanist ethics within the framework of Deleuzian Spinozism one.[325]

In a similar vein, Karen Barad also utilizes the second chapter of her main work on posthumanism: *Meeting the Universe Halfway: Quantum Physics and the Entanglement of Matter and Meaning* from 2007, to discuss entanglement as part of diffractive methodology in more detail. Through the attention to diffractions, which is a specific concept/procedure in quantum theory, she outlines the potential for reading things through each other in order to take into account the differences "that matter". In relation to such readings, an idea of ethics, which does not come "from above" but one that can only be understood through entanglement of matter is proposed. Thus, "[d]iffractive readings bring inventive provocations; they are good to think with. They are respectful, detailed, ethical engagements."[326] This may then be understood as a turn towards an understanding, on how matter *matters* as well as how ontological conditions have been sidestepped in late modern critical thinking to the benefit of epistemology.[327]

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något att avgränsa eller begränsa från. Blotta idén om ett "bortom" vederläggs här från första början, eftersom det också måste förstås som ett av många begrepp som skapats och verkar utifrån själva immanensplanet." and "Emellertid är immanensens relation till transcendensen (och omvänt) inte ens för Deleuze fullt så tydlig och hårdragen." p Spindler, F. *Deleuze, tänkande och blivande,* p. 43-44 and p. 45 Munkedal: Glänta Produktion, 2013.

[325] See e.g. Braidotti, R. *Inhuman Symposium- Rosi Braidotti,* online. Braidotti, R. *The Posthuman,* e.g p. 55-57 c.f. 190-19.; MacCormack, P. P*osthuman Ethics, Embodiment and Cultural Theory*. p.1-2

[326] Dolphijn, R. and van der Tuin, I. *New Materialism: Interviews & Cartographies* (2011), Interview with Karen Barad p. 50. See also e.g. Barad, K. *Meeting the Universe Halfway,* p. 71 This understanding of considering matter, through diffractive readings furthermore resembles Braidotti's cartographic methodology discussed in *Nomadic Subjects* as: "The different modes and forms of nomadism complicate the task of the social and cultural critic. They require more historically grounded, socioeconomic references and subtler degrees of differentiation. Thus, nomadic thought amounts to a politically invested cartography pf the present condition of mobility in a globalized world." Braidotti, R. *Nomadic Subjects, Embodiment and Sexual Difference in Contemporary Feminist Theory,* 2nd ed. New York: Columbia University Press, 2011, p. 4.

[327] See e.g. Coole, D., and Frost, S. *Introducing the New Materialisms*, p. 7-15, in eds. Coole, D. And Frost, S. *New Materialisms, Ontology, Agency, and Politics.*, Philippopoulos-Mihalopoulos, A. *Spatial Justice. Body, Lawscape, Atmosphere*, p. 10-11.

As noted by Kathrin Thiele, such diffractive endeavours have arguably also been the aim of Donna Haraway's entire philosophical project. As Thiele further notes, Haraway utilizes the term as "a metaphor for another kind of critical consciousness at the end of a rather painful Christian millennium, one committed to making a difference."[328] This move, as Thiele notes, is furthermore intensified through Karen Barad's work where it disrupts the binary between determinism and free will as well as past and future.[329]

As a part of producing an alternative understanding of the world, Braidotti argues that it is important not to give into entirely negative accounts of informatics of domination as a form of bio-power or so-called "necropolitics".[330] Braidotti proposes an example of a posthuman idea of ethics in her notion of *zoe ethics* or *radical relationality*.[331]

As part of the more *radical* aspects of such ethics she links her perspective to the needs to think:

> "non-profit; emphasis on the collective; acceptance of relationality and viral contaminations; concerted efforts at experimenting with and actualizing potential or virtual options; and a new link between theory and practice, including a central role for creativity."

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[328] Thiele, K. *Ethos of Diffraction: New Paradigms for a (Post)humanist Ethics* in Parallax Vol 20, No. 3. (2014) 202-216. p. 203, quoting Haraway, D. *Modest_Witness@Second_Millennium.FemaleMan©_Meets_Oncomouse™,* p. 273.

[329] Thiele, K. *Ethos of Diffraction: New Paradigms for a (Post)humanist Ethics,* p. 203.

[330] Biopower and necro-politics can be thought of as two-sides of the same coin. The interest in the politics of life itself thus also affects the geo-political dimension of death and killing. Braidotti, R. *The Posthuman.* p. 122 pp.

[331] Braidotti, R. *The Posthuman,* p. 35. Also referring to Braidotti 2006, Braidotti furthers that her political ontology should be understood as process-oriented and that it therefore can accommodate a post-secular turn pursued by thinkers such as Harding and Mahmood. In such linkage, Braidotti advances a double challenge to "link political subjectivity to religious agency and of disengaging both from oppositional consciousness, and from critique defined as negativity" as one of the main issues raised by the posthumanist condition, p.35 See also Philippopoulos-Mihalopolous, A., *Critical Autopoiesis and the Materiality of Law.* Int J Semiot Law (2014) 27:389–418.

She also traces a genealogical line between this ethical endeavor in (critical) posthumanism and post-structuralism, anti-universalism of feminism, and postcolonial phenomenology.[332] These affiliations should however not be understood as moral injunctions as that would imply a transcendental focus. Instead, she states that they should be understood as "dynamic frames for an ongoing experiment with intensities."[333] This consideration for the experiment can likely be read in relation to the Deleuzian idea of philosophical work as necessarily engaged in experiments (thinking to the extreme).[334] As she furthermore notes, the experimental take needs to be "(...) enacted collectively, so as to produce effective cartographies of how much bodies can take (...)"[335]. For this reason she also refers to the exploration of bodies in connection to ethics as 'thresholds of sustainability'. The aim with experimenting with such concepts is to "(...) create collective bonds, a new affective community or polity."[336]

Karen Barad explicitly engages in ethics as a form of study in what she refers to as an ethico-onto-epistem-ological manner.[337] In Barad's account of ethics, this is a practice which one cannot avoid as it "runs through the marrow of being."[338] She argues that there is therefore "no getting away from ethics – mattering is an integral part of the ontology of the world in its dynamic presencing. Not even a moment exists on its

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[332] Ibid. p. 46 Furthermore noting that "Edward Said (1978) was among the first to alert critical theorists in the West to the need to develop a reasoned scholarly account of Enlightenment-based secular Humanism, which would take into account the colonial experience, the violent abuses and structural injustice, as well as postcolonial existence. Post-colonial theory developed this insight into the notion that ideals of reason, secular tolerance, equality under the Law and democratic rule, need not be, and indeed historically have not been, mutually exclusive with European practices of violent domination, exclusion and systematic and instrumental use of terror." Also, in relation to critical race theory and feminism, she argues that the interest in the subject is somewhat different from other post-structural theories as they remain an interest in the subject as such theorists are suspicious of deconstructing a subject position which they have never had access to. Braidotti, R. *The Posthuman,* p. 47.

[333] See e.g. Spindler, F. *Deleuze, tänkande och blivande*, p. 69-70, 102.

[334] Ibid.

[335] Braidotti, R. *The Posthuman,* p. 191.

[336] Ibid.

[337] Barad, K. *Meeting the Universe Halfway*p. 89-90

[338] Barad, K. *Meeting the Universe Halfaway, p.* 396.

own. "This" and "that," "here" and "now", don't preexist what happens but come alive with each meeting." [339] "Intra-action "as a theoretical-practical endeavor therefore becomes a means to meet the world in a responsible way by:

> "taking account of the entangled phenomena that are intrinsic to the world's vitality and being responsive to the possibilities that might help us flourish. Meeting each moment, being alive to the possibilities of becoming, is an ethical call, an invitation that is written into the very matter of all being and becoming."[340]

Even more explicitly than in the ethical call for posthumanism in Braidotti's sense, Barad subsequently frames an understanding of posthumanist ethics as being without an outside. There is in this manner no escape from ontology, epistemology and therefore not from ethics. Like Braidotti, she also places this in the understanding of taking responsibility for (and embracing) differences. [341] The political theoretical call for a specific orientation of difference is however arguably less evident in Barad's account than in Braidotti's direct location of posthumanist ethics in line with postcolonial, critical race and feminist movements/theories. [342] Such ethico-political focus in posthumanist theory is therefore to consider both ontological shifts due to the vitalist power of matter. At the same time, the emphasis is also to consider how difference may be produced in line with a very specific political direction. As noted by Coole and Frost, a substantial degree of writers in the vein of new materialism that they advocate, build upon Marxist insights. Several authors also advance Marxist criticism through changes in materiality as well as through Foucault and subsequent insights in intersectionality.[343] The posthumanist theories that are represented here

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[339] Ibid.
[340] Ibid.
[341] Ibid. p. 178.
[342] See above and: Braidotti, R. *The Posthuman,* p. 46-47
[343] Coole, D., and Frost, S. *Introducing the New Materialisms*, p. 30-31, in (eds.) Coole, D. And Frost, S. *New Materialisms, Ontology, Agency, and Politics.*

through Barad, Haraway and Braidotti arguably all map on, and break from, such line of critique.

Potentially, one may however speak of a divide between Australian-Continental European and American takes of new materialism/posthumanism and ethics/politics. Patricia MacCormack suggests something in this vein when she states that even though there has been development of posthumanist theories from several locations, she tends to affiliate herself more closely with Australian-French entangled theorists that build more closely on Spinoza.[344]

In line with the French readings of Spinoza, furthermore, ethics needs to be considered in a very active as well as situated manner as it cannot be something coming "from the outside" or "above". Barad's cry for the immanence of ethics may therefore also an intrinsic part of posthumanist theories that foregrounds Spinoza, even if not as explicitly stated in the mentioned treatment of Braidotti's theorization of the posthuman.

The three tools that now have been presented interfold through the Spinozist understanding of body and ethics, or potentially more accurately and in spirit of Harawayan linguistics as *bodyethics.*[345] Patricia MacCormack also notes the interchangeability between body and ethics in posthumanist theory in her book named *Posthumanist Ethics* that*:* "*Posthuman Ethics* could have been called *Posthuman Bodies* in reference to the crucial status of bodies in posthuman philosophy. Thus, ethics in the Spinozan vein is tightly connected to the concept of the body and the

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[344] MacCormack, P. *Posthuman Ethics,* p. 14 o commenting on the difference between her and Carey Wolfe's versions of posthuman ethics: "Wolfe tends toward Jacques Derrida, Judith Butler, Bruno Latour and what could be argued a more 'American theoretical framework. Wolfe in his discussion of the place of ethics in posthuman theory, explores the status of biotechnology and media in the United States now and this direct application is itself an ethical turn its material encounter with issues of obligation, netiher judgmental (as I perhaps am) nor unconditionally celebratory. Many other posthuman theorists tend towards Levinas, Derrida, Latour, Haraway and Hayles while interestingly those theorists who are more aligned with my framework, such as Rosi Braidotti, Anna Hickey-Moody, Elizabeth Grosz, Claire Colebrook and Felicity Colman seem to shy away from posthuman theory or are more critical of it, emphasizing French feminism and the Nietzschian, Bergsonian, Spinozist and Deleuzio-Guattarian line."

[345] C.f. "naturecultures" in Haraway, D. *When Species Meet,* e.g. p. 16.

modifications of bodies that may be pursued.[346] The body, reconfiguring relation and ethical emergences of bodies beyond being received through representation, is the foundation and the site of the event of the posthuman encounter."[347]

[346] MacCormack, P. *Posthuman Ethics, Embodiment and Cultural Theory*. p. 1 Deleuze and Guattari expresses this e.g. as "What we are talking about is not the unity of substance but the infinity of the modifications that are part of one another on this unique plane of life." Deleuze, G., and Guattari, F. *A Thousand Plateaus*. p. 297

[347] MacCormack, P. P*osthuman Ethics*, *Embodiment and Cultural Theory*. p.1

3 POSTHUMANIST JURISPRUDENCE, CONNECTIONS AND DISCONNECTIONS

The aim with this chapter is to introduce the reader to some general understandings and concepts of jurisprudence, as well as to place and develop them, in and through posthumanist theory. I do this specifically with the focus of considering Karen Barad's concept of ethico-onto-epistemology as briefly introduced in the previous chapter. The reason for this is that, apart from its affiliations with immanent ethics as proposed in chapter two, her conceptualization of ethics has also been developed in relation to posthumanist methodology or rather as how knowledge is continuously produced. This emphasis on thinking ethics as part of the production of knowledge as well as matter, challenges as well as enlightens theoretical and methodological boundaries of jurisprudence. The making visible of such boundaries of jurisprudence has been discussed e.g. by Håkan Gustafsson[348] and Eva-Maria Svensson.[349] As Gustafsson argues one can think of performative boundary concepts as fulfilling determining functions of disciplinization and control for the identity and unity of the knoweldge of law.[350] The consideration of jurisprudence in relation to its boundaries is furthermore a fairly common query pursued in critical legal theory.[351]

As the study of law has followed most other sciences in relation to opening up of disciplinary boundaries, jurisprudence today is however in general to be perceived as an expansive field that includes innumerable

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[348] Gustafsson, H. *Dissens, om det rättsliga vetandet* Göteborg: Jure Förlag AB, 2011.

[349] Svensson, E-M. *Boundary-work in legal scholarship,* p. 17, in (eds,) Gunnarsson, Å., Svensson, E-M, Davies, M. *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism*

[350] "Performativa gränsbegrepp fyller avgörande disciplinerings- och kontrollfunktioner för rättsvetandets identitet och enhet." Gustafsson, H. *Dissens, om det rättsliga vetandet* p. 27

[351] See chapter one on this project's affiliation to critical legal theory and continuously in this chapter.

theories, both of "grand" and minor orientation.[352] For this reason it, of course, is inherently difficult to even give an introduction to the disciplinary boundaries of jurisprudence. To make it more concrete, one may, as done by Raymond Wacks, point out that jurisprudence generally seeks to:

> "(…) answer fundamental questions about the law. What is law? What is its purpose? Does it consist merely of rules? Can anything be law? What has law to do with justice? Or morality? Democracy? What makes a law valid? Do we have a duty to obey the law?"

Such questions are often central to jurisprudence and legal theory. However, as furthermore noted by Wacks, "(…) every substantive or 'black letter' branch of the law generates queries about its own meaning and purpose."[353] As an example of the latter, he mentions queries such as whether the law of contract may be understood without an appreciation for rights and duties and whether property law is not founded on certain theoretically relevant conceptions of private property.[354]

As Douzinas and Gearey further note, all great philosophers, such as Plato, Hobbes, Kant, Hegel and Weber, had either studied law or were deeply engaged with its workings.[355] The ethical commitment of jurisprudence is therefore one with very profound and far-reaching history. In spite of this, however, questions of law's jurisprudential commitments are not necessarily a topic widely discussed outside critical legal theory. Considering the strong onto-ethico-epistemological claim of

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[352] This does however not imply that one still discusses the "boundaries of legal discipline" or that such "boundaries" are an uncontroversial issue, as argued by Svensson, E-M. *Boundary-work in legal scholarship,* p. 17, in (eds,) Gunnarsson, Å., Svensson, E-M, Davies, M. *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism* and Gustafsson, H. *Dissens, om det rättsliga vetandet,* p. 27

[353] See e.g. Wacks, R. *Understanding Jurisprudence,*. 4th ed. Oxford: Oxford University Press, 2015 p. 1 and p. 5, for a similar remark on the difficulty on limiting jurisprudence as a field.

[354] See e.g. Wacks, R. *Understanding Jurisprudence,* p. 1 and p. 5, for a similar remark on the difficulty on limiting jurisprudence as a field. Wacks, R. *Understanding Jurisprudence,* p. 1

[355] Douzinas, C., and Gearey, A. *Critical Jurisprudence, the Political Philosophy of Justice.*, p. 3.

posthumanist theory, this is however yet an important question in order to make visible which understanding of law and jurisprudence that needs to be ruptured in order to think of law in relation to posthumanist ethics.

Apart from treating ethics in this immanent manner,[356] as an integral part of the entire election of material and directions of this thesis, I will here therefore also make visible some central boundaries in legal thinking which may be put in question through posthumanist theory.

3.1 Posthumanist ethics and posthumanist jurisprudence

When I here frame what may be considered as posthumanist jurisprudence, I draw upon such writings where this commitment to posthumanism and new materialism have been specifically considered as part of the role of jurisprudence. Furthermore I produce this reading through a methodology, where I aim to focus on the productive cuts in jurisprudence from the perspective of posthumanist theory. For the sake of simplification, and for the benefits of her methodological clarity, I use Karen Barad's writings in *Meeting the Universe Halfway* in order to pursue such a reading. With regards to the selection of the material in jurisprudential writings, I have aimed largely at working from my own part, and partiality, as deeply embedded in a very specific research context. For this reason, I have specifically included writings that have been produced by legal scholars here in Gothenburg. This is however also an informed choice as the theoretical stream of law in Gothenburg has traditionally been significantly influenced by constructivism, realism, and critique.[357] These are themes that are quite easy to read affirmatively

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[356] See on immanence 2.1.2.

[357]See e.g. Svensson, E-M. *Genus och rätt. En problematisering av föreställningen om rätten* Iustus, 1997, Petrusson, U. *Patent och industriell omvandling*, Norstedts Juridik, Stockholm, Stockholm: Sweden, 1999; Glavå, M. *Arbetsbrist och kravet på saklig grund. En alternativrealistisk arbetsrättslig studie* Stockholm: Norstedts Juridik, 2000; Gustafsson, H. *Rättens polyvalens. En rättsvetenskaplig studie av sociala rättigheter och rättssäkerhet* Göteborg: Göteborgs universitet, 2002; Stendahl, S. *Communicating justice providing legitimacy : the legal practices of Swedish administrative courts in cases regarding sickness cash benefit*), Uppsala: Iustus, 2004; Gustafsson, H. *Dissens;* Bruncevic, M. *Fixing the Shadows*

in the production as posthumanist jurisprudence through Karen Barad's understanding of agential realism as I will further show.

As discussed in the first chapter of this thesis, one would be hard-pressed to say that there is a stream of legal theorists today that defines themselves as engaged in posthumanist jurisprudence. However, the posthuman, as a theme and theoretical engagement can be increasingly discerned as a specific consideration also amongst legal scholars during the last couple of years. The most notable contribution to a development of posthumanist theory of law has, as continuously discussed, been pursued by Andreas Philippopoulos-Mihalopoulos through his work, *Spatial Justice* from 2014. He has also contributed to posthumanist legal theory through a number of talks, such as a e.g. the plenary speech at Critical Legal Conference, 2015 in Wroclaw, Poland, and his professorial inauguration lecture at Westminster University, in 2011.[358] The post-human was also one of the specific thematic nodes sought for under the Critical Legal Conference, 2016, in Kent under the main theme of *Turning Points.*[359] If one however expands the stream from explicit interest in posthumanist jurisprudence to *new materialist* jurisprudence in the manner that has been discussed above,[360] one can also include a significant theory development. Specifically note-worthy is then the stream of legal theory related to Deleuze or Deleuzian jurisprudence.[361]

The already mentioned Håkan Gustafsson also made a further noteworthy contribution towards posthuman ethics in legal theory through *Dissens.*[362] This movement is pursued, just like in the case of

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[358] Philippopoulos-Mihalopoulos, A. *Spatial Justice, Interdisciplinarity and the Post-humanist Turn: Inaugural Professorial Lecture, University of Westminster, November 2011* Availible on Youtube.

[359] Critical Legal Theory Conference 2016: *Turning Points,* Kent Law School: *Conference Description* "Are we post-human? Post-Europe? Post-law? Post-critique? And what about the core critical legal concerns: law, justice and ethics?" Online via Critical Legal Thinking, www.criticallegalthinking.com accessed 10 April 2017.

[360] See above where the link to new materialism as the exact term which Deleuze used to describe his theoretical interest.

[361] See e.g. Bruncevic, M. *Fixing the Shadows* p. 77-79 for a brief overview of Deleuzian jurisprudence, and e.g. Bruncevic, M. *We Need to Talk About the Cultural Commons: Some Musings on Rhizomatic Jurisprudence and Access to Art*, Nordic Journal of Law & Social Research (NNJLSR) (2015), p. 115-130.

[362]Gustafsson, H. *Dissens,* p. 122-126, especially footnotes 142-146.

Philippopoulos-Mihalopoulos, through an engagement with French Spinozist thinking. With background to this idea he argues that another way to perceive of the legal subject beyond the individualist framework in dominant legal theory could be opened through such theory. [363]

Apart from the theories developed by Andreas Philippopoulos-Mihalopoulos, as well as the line of modern legal theorists with constructivist, realist and critical engagements from Gothenburg, I have also utilized materials, which are being widely used in the education of jurisprudence in the Anglo-Saxon world as well as the legal education at Gothenburg University. This includes writings in critical legal theory by Costas Douzinas and Adam Gearey and Margaret Davies, as well as Raymond Wacks' textbook on General Jurisprudence.

When considering traditional boundaries of theory in relation to a potential or actual treatment of posthumanist jurisprudence, I will make use of the methodological commitment to challenge several dichotomies through which boundaries of jurisprudence is produced.[364] Legal theory, just like other theory tends to invent and orient itself in relation to such divisions into opposites.[365] My aim with this questioning is to show how posthumanism needs to be understood to questions several of the binaries.[366] The aim is thus not to show how posthumanism transcends the dominant dichotomies. Rather the focus is to show how it rather deters divisions or that something of a break, or a disconnection, which might be necessary to engage with in order to pursue ethics that corresponds to the main queries of posthumanism. In this manner, the aim with the reading is also to produce an ethically informed situatedness within the discipline of jurisprudence. More specifically, the potential of jurisprudence through posthumanist theory is here sought, considered and produced.

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[363] Ibid. p. 126. Before embarking on this insight, he has also questioned a number of the dichotomies of law, which will also be put in question here while not calling it an explicit posthumanist endeavor. See Ibid. e.g. p. 36-37

[364] See 1.5.3.

[365] Gustafsson, H. *Dissens,* see e.g. p. 36-37

[366] See above about monism, immanence etc.

3.2 An inside-outside dichotomy

> "Do I dare disturb the universe?" is not a meaningful question, let alone a starting-point for ethical considerations. Disturbance is not the issue, and "dare" is a perverse provocation. There is no such exterior position where the contemplation of this possibility makes sense. We are *of* the universe – there is no inside, no outside. There is only intra-acting from within and as part of the world in its becoming."[367]

The entire rationale behind Karen Barad's project is, as she herself described it, to consider how everything is entangled. This may therefore be understood as an understanding of the world, and how it matters, in deeply relational terms as discussed in chapter two. In turn, this implies that instead of considering e.g. the human and its world as the world of the social and conversely e.g. the world of the matter such as atoms, as an outside world of matter, instead everything is considered as of being deeply *inside* of the world we live in and produce. Obvious from the above cited passage, in her understanding, this all-encompassing understanding of everything as being inside, also implies a deeply, and unavoidably ethical perspective. Such understanding of ethics, and as she frames it, as "responsibility" in this manner deters the general (liberal) conceptualization of responsibility as a being matter of "human" choice.[368]

Barad also explicitly addresses this understanding with for example the mention that: "[a]lthough there may be no outside that we can know, there is a boundary."[369] This is also the matter in which she argues for the engagements in a thinking that places emphasis on sustainable entanglements.[370] Thus, Barad's posthumanist theoretical endeavor is in this manner consider a world with no pre-given inside or outside, as everything is deeply related. However, this does not imply an

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[367] Barad, K. *Meeting the Universe Halfway*, p. 396.
[368] Ibid. p. 396.
[369] Ibid. p. 42.
[370] Ibid. p. 25.

understanding that the boundaries continuously produced, does not exclude some people from entering certain insides. For this reason it becomes necessary to consider how to rupture, or place boundaries between the bodies entangled in a manner where this understanding may be enacted.[371]

3.2.1 Disciplining an inside-outside of law

The deterral of an absolute outside in posthumanist theories such as Barad's makes it possible to question a central dichotomy pursued in the theories of legal positivism, legal realism as well as the mainstream of sociolegal theory where it is often held that there is indeed an *inside* and an *outside* of law.

To summarize: the inside of law is generally attributed to the courts as well as the legislations (and in e.g. Scandinavia, the preparatory works and case law) from which the courts may interpret the law. This dichotomy is central in most legal theories, even critical ones.[372] To do this, two approaches are generally put forward as "the internal" and "the external" sides or perspectives that may be taken as with regards to law. Internal theories attempt to take the view of the judge, or to some extent, the lawyer, and from this point try to theorize processes of argumentation and reasoning which are utilized within "legal institutions". External theories on the contrary generally involve e.g. sociology of law, Marxist approaches etc. which treat findings in such theories as facts to be incorporated in wider "non-legal" contexts.[373]

In positivist schools, the law is, as mentioned in passing, generally described as a specific system, closed or semi-closed. In more advanced theories of positivism such as the hyper-cycle of law suggested by Teubner,[374] system concepts are complemented by a potential for inflow from the outside. Many positivist theories also include ideas that pertain

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[371] Ibid. passim.
[372] Even if the aim in critical theory can be to challenge the boundaries of inside/outside as will be discussed below, c.f. Svensson, E-M. *Boundary-work in legal scholarship,* in (eds,) Gunnarsson, Å., Svensson, E-M, Davies, M. *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism*
[373] Douzinas, C., and Gearey, A. *Critical Jurisprudence, the Political Philosophy of Justice*, p. 5.
[374] Teubner, Gunther *Law as an autopoietic system*, Oxford: Blackwell, 1993.

to how to manage ethically unsatisfactory results in legal interpretation. Thus, they are not totally free from the ideas that they generally claim to challenge in natural law.[375]

The legal system in these theories is however still contained in relation to a modernist and generally nation-state based notion of *where* law is produced and found. Thus, to simplify: the parliament and government decides on, and therefore creates, laws and the courts apply these laws. Law is therefore an activity carried out in courts. Everything before and after this step is thought of as politics. The role for legal theory is subsequently believed to function as a support to how courts apply law in an as qualitative way as possible. This quality can be described as justice, equality, fairness, equity, or whatever value that the legal theory may come up with (if this now is legal theory's role, some positivists would say that such activities are wholly political and should be avoided even by legal academics).[376]

3.2.2 Critical legal theory and the inside-outside dichotomy

Postmodern critical legal theories engage to large degree in so called boundary-work of the legal discipline. Thus, a central contribution from these legal theories is the questioning of a disciplinary outside of jurisprudence. As noted by Eva-Maria Svensson, professor in legal theory, the Scandinavian legal tradition has been highly entangled with a dogmatic view of law as well as jurisprudence. This understanding implies that jurisprudence has been positioned as theories of the study of *law* as an *"object"*. [377]

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[375] C.f. Davies, M. *Asking, the Law Question,* Law Book Co of Australasia; 2nd edition edition, 2002. p. 75-76

[376] C.f. Svensson, E-M. *Boundary-work in legal scholarship,* in (eds,= Gunnarsson, Å., Svensson, E-M, Davies, M. *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism*

[377] One could easily be lead into thinking that this implies that law in a Scandinavian setting is already embedded in an object-oriented-ontology. However, as we will see, this is not the case, at least not from a posthumanist perspective, as this understanding of how to study law implies an approach to law as an unmediated object where epistemology is rendered invisible. See Svensson, E-M. *Boundary-work in legal scholarship,* (eds,) Gunnarsson, Å., Svensson, E-M, Davies, M. *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism*

As further argued by Margaret Davies argues the idea about an inside or outside of law is tightly connected to an idea of free positionality of individuals. This implies that the construction of methods that advocate an internal or external perspective to law is also dependent on an idea that the researcher may position himself (gender form used with intention in line with Davies theory) as he *wishes*. Thus his positionality- inside or outside of a specific place- is fully optional and always a part of a *free* choice of method. As an example, she mentions that Hart specifically forwards this idea through the indication that one can simply adopt and internal or external point of view. As she further notes, such view may be attributed to a liberal thinker who sees himself as a free agent. In this manner, he relates to the world as something that can be made sensible through analysis. In such view, he furthermore appears to think that this is the condition of everyone."[378]She also specifically argues that:

> "Sometimes there is no choice about where we start from because the rules exclude us from the beginning. Even if we wish to adopt an internal attitude, we may not be able to. For instance, there is an expectation that people are "normally" heterosexual, meaning that most people do not choose this condition, but simply assume it as their own identity. Any other version of sexuality is seen as a distortion or unnatural."[379]

For this reason, not everyone has the privilege of choosing whether to take an inside or outside perspective to law or society in general (if one separates between the two). Even if one chooses the position of an "outsider" this position is generally never fully allowed, never fully possible. Or as Davies puts it for some people

> "Everywhere is outside, but the outside itself can be formed into an inside. What this means is that for many people the question is not a simple choice of being inside or outside a system of norms,

[378] Davies, M. *Asking the Law Question,* p. 14
[379] Ibid. p. 14-15

but rather complicated negotiation with multiple contexts, social codes, and legal systems of inclusion and exclusion."[380]

This deeply situated notion of law put forward by Davies in order to question Hart's theory implies that there is never an absolute outside of law. There is nothing that is "strictly external" if one purses a situated notion of law. As also noted by Davies, which is of high interest to the construction of posthumanist jurisprudence, this persepctives were often constructed at a time when it was still being assumed that "(...) the objective anthropological observer who only described the regularities of a society's behavior was a possibility."[381] As discussed in relation to the concept of situatedness in chapter one, this stands in sharp contrast to a situated posthumanist perspective.

Douzinas and Gearey furthermore argue that the demarcation of an inside and outside of law can be understood as a specific aspect of what they refer to as *restricted jurisprudence.*[382] In putting up an inside and outside of law, a distinction between "pure law" and contexts, politics, economics and similar is being produced. In this manner, law thus becomes restricted to "state law" only. This in turn limits the potential for jurisprudence to be engaged with questions considering:

"(...) the legal institution with its practices and procedures, its rules norms and rights, in what can be called a legal interzone."

Douzinas and Gearey argue that this interzone is neither internal nor external to law. Neither can it be connected only to conceptual and normative coherence or systematic closure. Finally, it does not follow and apply the rules and theories of sociological method. [383]

However, more general forms of legal theory in their understanding, is still considered with *legal texts*, *legal* history and treats such texts as "a privileged terrain of study." However, they differentiate

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[380] Ibid. p. 15-17
[381] Davies, M. *Asking the Law Question,* p. 19
[382] More about restricted jurisprudence below with regards to the fact-value divide.
[383] Douzinas, C., and Gearey, A. *Critical Jurisprudence, the Political Philosophy of Justice,* p.12

the reading of these texts from the readings of internal legal theorists as the aim is not to read them only in order to establish some kind of normative coherence but also in order to see what such texts excludes and repress. The focus then becomes one that focus to make visible "signs of oppressive power" and symptoms of the traumas created by the institution.[384] However, the focus here is still on law as *text*. In this manner, a legal inside is continuously produced also in such critical endeavour, in a manner that make a cut based on *materiality* before even considering if also other matter could function as law.

3.2.3 Disconnecting the inside-outside dichotomy

> "There is no outside! But we forget this…
> How lovely it is that we forget!"[385]

With these words however, Andreas Philippopoulos-Mihalopoulos, quoting Nietzsche, opens his work on *Spatial Justice,* a theory of law that is posthumanist in both its ontology and epistemology.[386] He continues with nuancing the understanding of the lack of outside with pointing out that even if there is no outside "(..) we need an outside (...)."[387] Instead of the possibility to challenge the outside (like has been done in critical legal theory) however, Philippopoulos-Mihalopoulos offers the idea of *the rupture*, a potential shift of air in the Lawscape, or more accurately: a shift or change of atmosphere. The lawscape in turn should be understood as a continuum where "…the multiplicity of lawscapes are folded into the continuum of the lawscape." Each lawscape in turn should be understood to reproduce the in/visibilisation of the lawscape, which in turn itself is an interplay between logos and nomos. This implies that

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[384] Ibid. p.17
[385] Friedrich Nietzsche in *Thus Spoke Zarathustra* as quoted in Philippopoulos-Mihalopoulos, A. *Spatial Jusice* p. 1
[386] Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 59-94.
[387] Ibid. p. 1

there is no essence of what a lawscape *is*. A lawscape should instead be understood as:

> "(…) the manifold emerging from the in/visibilisation of law and space, like a sound equaliser screen whose values go up and down depending on the song without, however, a main button to control what gets in/visibilised."[388]

Specifically noteworthy from a posthumanist perspective of this understanding of law is that the environment is deeply connected to (posthuman) bodies since the lawscape emerges from the visibilisations performed by these bodies. Bodies thus "(…) carry law and space, indeed generate law and space, through their moving on the lawscape."[389]

This conceptualization of law implies a significant difference in relation to most understandings in traditional jurisprudence. Specifically important in relation to posthumanist theory is that the concept of freedom of individuals does not correspond to the posthumanist concept of freedom (or determination).[390] Thus, one cannot for example choose whether one should take an inside or outside perspective, in line with e.g. the points made by Davies, as perspectives are always conditioned also by other bodies. To be belive that one would be able to separate between discipline and discipliner is also linked to a theoretical belief that one may separate between knower and known. Such view has been criticized by e.g. Karen Barad as being, not the least, highly anthropocentric and therefore needs to be dismissed by posthumanist theory.[391] Neither is it possible, from a posthumanist perspective, to firmly demarcate law from materiality or from its outside just as something that is conceptually defined as a legal text, a legal institution or similar. Such perceptions however remains prevalent, and dominant, in much of legal theory, both positivist and realist (and one can indeed even argue that this makes realism positivist). And as stated, the disciplinarization of law as text,

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[388] Ibid. p. 192.
[389] Ibid. p. 192
[390] C.f. above, e.g. 2.1.2. and 2.4.3. on the Spinozan body concept, which never assumes a free individual in the liberal sense.
[391] Barad, K. *Meeting the Universe Halfway,* e.g. p. 369-376

concepts and similar (specifically without linking them to their materiality), needs to remain a suspicious methodology in relation to posthumanist theory, even if advocated as critical theory.

3.3 A material-conceptual divide

The posthumanist framework in general is furthermore heavily influenced by the importance of paying an increased attention to materiality. As Karen Barad argues, such theoretical perspective that has been significantly ignored in more recent times as she argues through the famous quote that:

> "Language matters. Discourse matters. Culture matters. There is an important sense in which the only thing that doesn't seem to matter anymore is matter."[392]

A specific focus in her work is therefore to consider matter in a more active manner than is generally done. Or, as she herself calls it, in more performative manner of matter, where she draws upon, and expands upon both Butler's and Foucault's theories of performativity.[393] The conceptualization of performativity may furthermore specifically be connected to her conceptualization of entanglement as such relational perspective cannot assume a pre-existing entity.[394] By this, it is also important to note that Barad's attention to matter does not take place in a new binarization of language or what I here frame as *concepts*. Rather, she utilizes the insights inspired by e.g. the French readings of Spinoza[395] to emphasize particularly the notion that there is no such thing as a separate entity that is not affected by the forces of other bodies in their production. However, at the same time as e.g. language is involved in the productions of connections and disconnections between bodies, she then

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[392] Barad, K. *Meeting the Universe Halfway,* p. 133.
[393] Ibid. e.g. p. 28
[394] Ibid. p. 396.
[395] See chapter to on the French readings of Spinoza. Barad specifically draws upon Foucault for the sake of this purpose. Barad, K. *Meeting the Universe Halfway*, e.g. p. 132-185

argues that this is not a unique characteristic of language, discourse, and culture *only*. And for this reason she argues that the empirical-conceptual divide needs to be considered in a manner, which also emphasizes matter in a more constructivist manner.[396] As will be discussed next, this divide between language and matter can be articulated in legal theory as a divide between empiricanl and conceptual theoretical focus.

3.3.1 Disciplining an empirical-conceptual divide

I have here already challenged the dichotomy that it is possible to conduct science in the posthumanist vein by treating science as enabling objective descriptions of the real world.[397] This dichotomy is specifically important in relation to posthumanist jurisprudence as empirical traditions seemingly open up for a more "realist" understanding of law. By exploring the empirical-conceptual ideals of science, it however becomes obvious that the divide is not possible to withhold in relation to posthumanist jurisprudence.

The understanding of the possibility to produce science from empirical studies of reality is often opposed to conceptually oriented theory. The aims of empirical versus conceptual sciences/methods are often described in terms of a dichotomy of deductive-inductive sciences/methods. To put it shortly, inductive views in science build upon an idea that a general understanding of law can be obtained from a number of single observations from which the scientist then can make predictions by deduction of future events. Such views can be described as *empirical* views of law. The other side, which can be referred to as conceptual understandings of law, implies that some fundamental concepts are utilized to explain law. According to Davies, an essential difference between these two concepts are that in streams of legal theory that are "purely empirical", the observed facts about law is supposed to lead to general truths or at least hypotheses about the nature of law (…)". Conceptual jurisprudence on the other hand "(…) is based on the idea

[396] Barad, K. *Meeting the Universe Halfway*, e.g. p. 132-185
[397] See 1.5.1 on situatedness.

that we have to impose a structure of concepts on our experience before we can understand it."[398]

Critical legal theories tend to criticize both empirical as well as conceptual notions of law for being built upon different rationalist foundations of knowledge.[399] This does however not necessarily imply that critical theories deter the divide between empirical and conceptual altogether. For example, realist traditions have generally gained much critical momentum from being able to criticize "dogmatic" legal traditions for being too focused on the "black letter" of law instead of considering "reality" or the need to take societal values into account.[400] Postmodern critical traditions can however be argued to be breaking more significantly with the empirical-conceptual divide due to the focus on deconstruction.[401] From the perspective of critical legal theory, it is however no a *necessity* to break with the understanding with an empirical-conceptual divide. For the sake of posthumanist theory, it is however arguably more necessary to break with this understanding.

3.3.2 Disconnecting the empirical-conceptual divide of jurisprudence

A central focus of new materialist theory is the focus of ontological *units* such as *matter*. This is visible in the focus on OOO[402], which has a close connection to new materialist theory as discussed in chapter two. The aim with OOO is to flatten the general distinctions as well as interests that are produced through e.g. the subject-object dichotomy. This ontological focus in turn implies that it is not e.g. discourses (only) that are of interest as study objects but also "*the material"* and how these shape e.g. for instance which entanglements that may be produced. As has been discussed, in relation to chapter two, the focus on matter in new

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398 Davies, M. *Asking the Law Question,* p. 125

399 See e.g. Svensson, E-M. *Boundary-work in legal scholarship,* in (eds,) Gunnarsson, Å., Svensson, E-M, Davies, M. *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism*

400 Ibid. and Petrusson, U. And Glavå, M. *Law in a Global Knowledge Economy: Following the Path of Scandinavian Sociolegal Theory.*

401 Davies, M. *Asking the Law Question,* 2nd ed., p. 274-275.

402 See about object oriented ontologies above, chapter one and two.

materialist theories can be specifically connected to Spinoza as well as other materialist schools such as Marxism. Due to the interest in materialism, it might therefore not be far-fetched to align posthumanism in law to legal realism. Håkan Gustafsson, in his treatment of Spinoza also makes a note in passing that even Spinoza, while belonging to the branch of natural law theorists, may be considered to be "almost on the verge of legal realism".[403] Reading Spinoza through Deleuze and posthumanist theory however renders a somewhat different result. More specifically, it renders a result, which is focused on the *parallel unfolding* between matter and concepts (even if the focus is definitely on the former).[404]

The distinction in this line of thinking is therefore rather focused on the degree of power something has "as law" as compared to whether law fulfills an "empirical" or "conceptual" role. As noted by Philippopoulos-Mihalopoulos in the same manner, the division between empirical and conceptual understandings of law is not feasible. Instead, what needs to be considered is *effective laws,* or forces, which pushes bodies in specific directions that need consideration. As discussed such understanding of law may be exemplified by the fact that there are prejudices that are stronger than formal laws.[405] This finding is potentially no more than general sociolegal knowledge or even, formalist knowledge in e.g. the fields of civil law where much formal law is "dispositive".[406] However, there is still a difference to place primacy ex ante on either formalism/texts or empirics as it supposes that one could make such distinction between the formalization of law and the practices of the same. Instead, formal law must always be read as folded together with

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[403] Gustafsson, H. *Immanence of Law,* in ed. Hirvonen, A. *Polycentricity, The Multiple Scenes of Law*. London: Pluto Press, 1998.

[404] See about Spinozist parallelism above and Philippopoulos-Mihalopoulos, A., *Spatial Justice,* p. 10: "*Ontology and epistemology unfold in parallel while folded together*. They remain *parallel* to each other in the Spinozan manner of non-connection yet co-emergence and co-development."

[405] Philippopoulos-Mihalopoulos, A., *Spatial Justice*, p 62.

[406] This implies that market parties generally described to have a large amount of negotiation space in relation to how law is formed in contract-based relations. Thus, it is common knowledge that it is not only formal law that counts but to large extent is dependent on the market positions of negotiating actors.

how it is being practiced (or not practiced). Also, as noted by Philippopoulos-Mihalopoulos, one cannot assume that either formal law or practices of law are all there is when it comes to the distribution of power amongst bodies. As continuously repeated here, power regimes such as gender based oppression or capitalism may be more forceful than any (other) idea of what is generally considered under the label of "law".

Douzinas and Gearey, in a similar vein, suggest that law needs to be considered as being power and *force*. They argue that:

> "If, for positivism, the 'law is the law' – in the sense if law's certification according to internal criteria of validity – the underlying idea becomes now fully radicalized. Power relations are law if and when they successfully attach to themselves the prediction 'legal' or, law is everything that succeeds in calling itself law."[407]

Not making a divide between formalist and empiricist conceptions of law, and moving towards an object-oriented understanding of law, necessarily also has consequences for the general division between law and legal theory as "the objects of law" and "the theories of law" cannot be studied as two different sets. As noted by both Philippopoulos-Mihalopoulos and Delaney, a way to pursue such interests further is to take the insights from Karen Barad's theory on the performative aspects of matter more into account.[408]

3.4 A descriptive-normative dichotomy

A specific conundrum in posthumanist theory, as described by Karen Barad, is the divide between descriptive and normative theory. As discussed in chapter two, this critique in posthumanist theory in general and in Barad's theory in specific is tilted towards criticizing social constructivist accounts. One way in which Barad claims that they have not gone far enough is that they generally distinguish between ontology

[407] Douzinas, C., and Gearey, A. *Critical Jurisprudence, the Political Philosophy of Justice*. 9.
[408] Philippopoulos-Mihalopoulos, A.,*Spatial Justice. Body, Lawscape, Atmosphere.*, p 48-49

and epistemology. Furthermore, she argues that they in this manner frame their works as being considered with epistemology rather than with ontology. [409] However, in the move towards considering the entanglement between ontologies and epistemologies, she also specifically notes how such pursuits have generally been carried out in the tradition of feminist theory.[410] Specifically Barad quotes Donna Haraway and the sentence from her article/book chapter on *Situated Epistemologies* stating that: "What counts as an object is precisely what world history turns out to be about."[411]

In this manner, there is as, she points out, no potential to be merely descriptive, or merely normative. Instead, the world needs to be understood as continuously co-produced, or intra-acted, through enactments of "agential cuts". In more concrete, this is expressed e.g. as:

> "Intra-active practices of engagement not only make the world intelligible in specific ways but also foreclose other patterns of mattering. We are accountable for (...) the differential patterns of mattering of the world of which we are a part- but also in the exclusions that we participate in enacting. Therefore accountability and responsibility must be thought in terms of what matters and what is excluded from mattering."[412]

The development of the onto-epistemological fold suggested by Barad leads, as already slightly touched upon through the treatment of the perspective of the inside, subsequently to what she refers to as ethico-onto-epistemology.[413] As Barad frames this focus, in e.g. constructivist science studies: "(...) constructivists have been responding to the challenge to demonstrate the falsity of the worldview that takes science as the mirror of nature."[414] In the opposite manner, she argues, realists have focused on the need for descriptive ontologies.

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[409] Barad, K. *Meeting the Universe Halfway,* p. 42
[410] Ibid. p. 44.
[411] Ibid. p. 42
[412] Ibid. p. 394
[413] Ibid. e.g. p. 43 and 381
[414] Ibid. p. 40.

As Barad puts it:

> "[T]he ontology of the world is a matter of discovery for the traditional realist. The assumed one-to-one correspondence between scientific theorists and reality is used to bolster the further assumption that scientific entities are unmarked by the discoverers: nature is taken to be revealed by, yet independent of, theoretical and experimental practices, that is, transparently given."[415]

Thus, a specific endeavor of her posthumanist theoretical project may be understood as a folding into a questioning of the descriptive-normative divide.

3.4.1 Disciplining a descriptive-normative dichotomy in jurisprudence

The divide between descriptive and normative is strongly emphasized in jurisprudence.[416] Wacks also adds a third box consisting of *critical legal theory* with the reasoning that such theories question the divide into descriptive and normative theory. A more fine-grained division pursued by Wacks and many others is to divide descriptive, normative and critical legal theory into: natural law, legal positivism (classic and modern), legal realism, law and social theory, historical and anthropological jurisprudence, theories of justice, critical legal theory, and feminist and critical race theory.[417]

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[415] Ibid. p. 41

[416] Wacks, R. *Understanding Jurisprudence,* p. 6-7, See also Svensson who describes how the move towards descriptive theory under Scandinavian legal realism can be understood as a move away from normative theory of law previous to this break in the middle of the 20th century in Sweden. Svensson, E-M. *Boundary-work in legal scholarship,* p. 20, in (eds.) Gunnarsson, Å., Svensson, E-M, Davies, M. *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism*

[417] See e.g. Wacks, R. *Understanding Jurisprudence,* p. In Swedish jurisprudence, there has generally been a strong stream of legal positivism, a noticeable stream of (Scandinavian) legal realism (separated from legal positivism in spite of its positivistic scientific undercurrents), sociolegal theory (conducted to some extent "outside" the legal discipline as much activity has been put outside legal departments) and a relatively

The divide between *the descriptive* versus *the normative* is in more concretized form often also described as a difference of *is/ought* aims of legal theory. The difference between descriptive and normative theory is thus generally formulated through an understanding of descriptive theories as theories that aim to explain what law *is*. Normative theories on the other hand are understood to be engaging in questions of what law *ought to be*. Another way to put the divide between these theories is that descriptive theories consider *facts* while normative theories consider *values*.[418]

The aim with enacting a descriptive-normative divide of law was in the Scandinavian realist tradition very much inspired by a desire for scientification of legal theory.[419] This implied a large refusal to consider "transcendental" values as being part of legal theory (or indeed: legal science). In the often cited words of American realist, Felix Cohen:

> "Valuable as is the language of transcendental nonsense for many practical legal purposes, it is entirely useless when we come to study, describe, predict, and criticize legal phenomena."[420]

Instead, what is suggested in the realist tradition is to pursue more empirically invested understandings of law in order to understand how it functions *in reality*.[421] As noted by Douzinas and Gearey, this division has generally been motivated by "cognitive-epistemological" and political considerations. Both Kelsen and Hart, two of the most significant influences on continental and Anglo-American positivism had their minds set on turning law into a science. In this effort, law could only be based on observable, objective phenomena. Thus, subjective and relative

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strong stream of feminist jurisprudence. See Svensson, E-M. *Boundary-work in legal scholarship,* in eds, Gunnarsson, Å., Svensson, E-M, Davies, M. *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism*

[418] Wacks, R. *Understanding Jurisprudence,* p. 6-7

[419] Glavå, M., and Petrusson, U., *Law in a Global Knowledge Economy: Following the Path of Scandinavian Sociolegal Theory.*

[420] Cohen, F. *Transcendental Nonsense and the Functional Approach* Columbia Law Review, No. 6, June 1935, p. 812, and Wacks, R. *Understanding Jurisprudence,* p. 168

[421] Wacks, R. *Understanding Jurisprudence,* p. 168

values were excluded from the domain of, as well as the science of, law.[422] The Scandinavian legal realists pursued a similar endeavor although from a somewhat different angle. In the Scandinavian realist turn, "law" was understood as possible to separate from values, but whether this was desirable or not was a question for discussion. Thus, they were not entirely opposed to, and may even be thought to have opened up for, "normative" perspectives of law.[423] The divide is in this manner aimed as a critique towards positivist theories of law that argue that there could be total closure of law as laws/"legal systems" may be technically designed in specific ways. To compensate for negative effects of legal systems, positivist theories have often tried to point at a foundation of law that cannot be breached or, law will not be understood as (positivist), law.[424] Scandinavian legal realism, could be understood to differ from such view. Instead of referring to e.g. a fundamental ground of law, which fixates it, it is suggested that law should be put into contact with society to a larger degree.[425]

Descriptive legal theory is generally understood to be able to inhibit a "doctrinal" orientation in a manner where it seeks to explain a specific legal doctrine. The example of such engagement given by Wacks is that freedom of expression might be justified by decisions of the courts in relation to the limits of free speech. Thus, doctrinal theories are understood to attempt to answer whether specific cases may be interpreted through an underlying theory. The other category of

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422 Douzinas, C., and Gearey, A. *Critical Jurisprudence, the Political Philosophy of Justice,* p. 6

423 Glavå, M., and Petrusson, U. *Following the path of Scandinavian legal realism to sociolegal theory.* One usually makes a separation between American legal realism and Scandinavian legal realism where the "...Americans are in general, pragmatist and behaviourist, emphasizing 'law in action' (as opposed to legal conceptualism), the Scandinavian launch a philosophical assualt on the foundations of law; where the Americans are 'rule-sceptics', they are metaphyscis-sceptics'." I will however not make very much separation between these two schools here as it is enough for the level of experimenation here to consider that both legal realist schools refuse "absolute values" and have an empirical, pragmatic, realist orientation. Wacks, R. *Understanding Jurisprudence,* 4th ed. p. 167-168

424 Gustafsson, H. *Dissens,* p. 88-89.

425 Svensson, E-M. *Boundary-work in legal scholarship* in (eds.) Gunnarsson, Å., Svensson, E-M, Davies, M. *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism;* Wacks, R. *Understanding Jurisprudence,* 4th ed. p. 177-182. Thus, legal realism can be said to have an empiricist focus as opposed to the more formalist approach of positivist jurisprudence.

descriptive theories consists of theories that Wacks categorizes as "explanatory". Such theories seek to explain why the law is as it is. An example of an explanatory descriptive legal theory given by Wacks is Marxist legal theory.[426]

Normative theory is often claimed as being descriptive legal theory's opposite, in the manner that it is invested in consideration of values. Normative legal theories under this perspective therefore may consider whether a specific legislation *ought* to be adapted to the benefit of a certain group of people/society or for any other reason (value). In general, normative legal theories have been associated with moral or political legal theories.[427]As noted by Wacks, it is however not possible (even without a critical aim) to make a clear-cut distinction between descriptive and normative theory. For example, a normative theory of law relies on descriptive theories about society as well as law to make up ideas of what ought to be, what counts as a value in the first place. [428]

3.4.2 The descriptive-normative divide through critical legal theory

Douzinas and Gearey argue that the separation of value from fact in jurisprudence should also be understood as part of the *restricted* form of jurisprudence mentioned previously. Separating values from fact as "law" should therefore not be understood as being in line with *general* jurisprudence. They furthermore argue that the move towards separating values from fact in law has implied an exclusion or minimization of the

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[426] Wacks, R. *Understanding Jurisprudence,* p. 7

[427] See e.g. Wacks, R. *Understanding Jurisprudence,* p. 7 Furthermore, Wacks argues that normative legal theories may be divided into *ideal* or *non-ideal* theories of law. The former category of normative theory considers which legal rules would create the best legal system if it was politically possible. The latter type of normative theory then assumes a number of constraints on how to choose legal rules such as difficulties in enforcement. Wacks, R. *Understanding Jurisprudence,*. p. 7

[428] Wacks puts it in the terminology that "A normative theory *may* rely on a descriptive theory (…)" (my italics in quote) Wacks, R. *Understanding Jurisprudence,* p. 7. In line with critical (legal) theory in general, I however consider this to be uncontroversial. Nothing can, as fact, be normative through and through, just as nothing can be descriptive through and through but more on this in a moment.

influence of moral values and principles in law."[429] As noted by Douzinas and Gearey:

> "Generations of jurisprudence writers have subdued their readers by obsessively repeating the question 'what is law?' and have presented legal theory as the history of the meaning(s) of the word 'law', the 'concept' of law, the 'idea' of law, and 'law's empire' of some of the most influential textbooks. This 'ontological' enquiry indicates a certain anxiety about law's proper domain. We have to spend so much energy thinking the essence of law because it is assumed that the law does have an essence."[430]

In a similar vein as in e.g. Scandinavian legal realism that has opened up for normative ideas about the law/legal science through the concept of 'social welfare',[431] critical legal theory opens up law to something *other/normative*, which is often done through the concept of *the political.*[432] However, the opening for normativity in critical legal theory does not come through the positivist tradition of conceptual solutions (only), which was criticized by the realists. As Douzinas and Gearey expresses it:

> "In the positivist world-view, law is the answer to the irreconcilability of values, the most perfect embodiment of human reason. Its operation should not be contaminated by extrinsic, non-legal considerations, lest it loses it legitimatory ability."[433]

Being well aware that conceptuality can have a tendency to emit a depersonalized understanding of power, and connect law to a focus on rationalist morality, it is thus not a return to positivism that is sought for. However, as argued by Douzinas and Gearey, the banning of morality

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[429] Douzinas, C., and Gearey, A. *Critical Jurisprudence, the Political Philosophy of Justice*, p. 6
[430] Ibid. p. 4
[431] Wacks, R. *Understanding Jurisprudence,* 4th ed., p. 178
[432] See e.g. Svensson, E-M. *Boundary-work in legal scholarship,* in (eds.) Gunnarsson, Å., Svensson, E-M, Davies, M. *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism*
[433] Douzinas, C., and Gearey, A. *Critical Jurisprudence, the Political Philosophy of Justice.* p 7

from legal operations has not protected law from coming up short in several ways. As an example, they mention that racism and sexism is continuously reproduced through law.[434]

A utilization of transcendent values is in the critical legal theoretical vein however also often deterred. [435] Douzinas and Gearey come to this understanding by stating that morality and moral philosophy are inescapable elements of judicial hermeneutics, but:

> "(...) the effect of hermeneutical jurisprudence is to justify and celebrate a practice that has long been divorced from the quest for justice by presenting the law as the perfect narrative of a community at peace with itself."[436]

As an answer to such flat understandings of principles and values of law, Gearey and Douzinas argue that one needs to understand that any values that a legal system promotes represent the dominant ideology of society. This implies that the ones othered in society, "the poor, the underprivileged, the minorities and the refugees" cannot find support in rules and principles as such norms are sustained by the same processes that produce them as other.[437]

Douzinas and Gearey argue that the potential of critical legal theory is by no means *only* to be critical but to create: "a general jurisprudence that aims to bring back into the picture those other aspects of the legality of existence – aesthetic, ethical and material – which are absolutely crucial to social reproduction." [438] By decentering the old stories of law and society, they argue that the possibility of thinking about the world in a new way is made possible. [439] Margaret Davies has in a similar manner argued for the need of thinking law as a flat ontology as she argues that by perceiving law as flat, one opens up for other norms as

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[434] Ibid. p. 7
[435] Ibid
[436] Ibid. p 8
[437] Ibid. p 9
[438] Ibid. p.33
[439] Ibid. p.35

having potentially equal or even more value for practices in specific contexts.[440]

Critical legal theory in this manner explicitly rejects the potential in outlining and withholding disciplinary boundaries as regards to the boundary between law/legal theory and the political.[441] This can also be expressed in the terms that jurisprudence brings together *is* and *ought,* the positive and the normative, law and justice.[442] This development can furthermore be understood as a move from general to restricted jurisprudence as discussed by Gearey and Douzinas. With this terminology, they point out that a jurisprudence that employs a technical approach oriented at considering law as a profession has generated poor textbook understandings of law as well as jurisprudence.[443]

3.4.3 Disconnecting the descriptive-normative divide of legal theory

The divide between descriptive and normative theory in this manner rests heavily upon the dominance of theoretical streams of legal positivism, legal realism and mainstream sociology and law theory. As discussed above, in general, it is believed in positivist conceptions of law that legal theory may be divided into descriptive and normative theory. Generally it is also believed in positivist theories that the lawyer's role is to stay within the framework of description. In legal realist notions of law and legal theory, normativity may be carried out as a part of the role of the lawyer. However, the descriptive-normative dichotomy remains as a framework

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[440] Davies furthers that this is a necessary starting point for feminist theory as e.g. relational aspects otherwise risks running out of critical force when implemented in a concept of hierarchy which itself enforces oppressive norms. Davies, M. *Feminism and Flat Law Theory* in. *Feminist Legal Studies* 16 (2008) 281-304 p. 284-285.

[441] See e.g. Svensson, E-M. *Boundary-work in legal scholarship,* in (eds.) Gunnarsson, Å., Svensson, E-M, Davies, M. *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism*

[442] Douzinas, C., and Gearey, A. *Critical Jurisprudence, the Political Philosophy of Justice*., p. 3,4.

[443] Douzinas, C., and Gearey, A. *Critical Jurisprudence, the Political Philosophy of Justice*., p. 5 C.f. Svensson, E-M. *Boundary-work in legal scholarship,* p. 24 in (eds.) Gunnarsson, Å., Svensson, E-M, Davies, M. *Exploiting the Limits of Law: Swedish Feminism and the Challenge to Pessimism*

for how legal theory *is* (and may be) thought.[444] Normative commitments are generally considered as bordering ideas about "the political", which is also opposed to the legal (as law is thought of as fixed politics).

Posthumanist theory on the other hand is pursued through a central idea of considering ontology and epistemology as constantly folding into each other as discussed above.[445] As expressed by Karen Barad, posthumanist theory is a theory that perceives of ontology, epistemology and ethics as continously intertwined. [446] Another way to say this is that a posthuman epistemology is a situated epistemology[447] in the manner that it assumes responsibility of the ontology corresponding to it. This implies a responsibility towards the discipline it convenes to as well as an ontological responsibility.[448] This can also be expressed in the manner that posthumanism comes, as discussed above, intrinsically connected with a very specific form of ethics. This ethics is an ethics of non-anthropocentrism in the way that it builds upon and advocates a flat ontology. This is however not a form of break with fact-value in terms of flatness that invisibilizes power.[449] In this way, posthumanism relates closely to the critical legal perspective discussed above. It does however break to a significant extent with most of critical legal theories when it deters from the dichotomy of epistemology-ontology when considering ethics.[450] This however, does not mean that divisions of ontology made through epistemology do not matter or that all bodies have the same privilege in producing law in the same way. As Philippopoulos-Mihalopoulos puts it:

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[444] Wacks, R. *Understanding Jurisprudence*, p. 6-7.
[445] Barad, K. *Meeting the Universe Halfway,* e.g. p. 42-45.
[446] Ibid. p. 185.
[447] As discussed above 1.5.1.
[448] Philippopoulos-Mihalopoulos, A. *Spatial Justice*, p. 59
[449] Philippopoulos-Mihalopoulos captures the problems by such an idea of flat law as non-hierarchical law by pointing out a quote by Astrida Neimanis that the:*'challenge to a hierarchized ontology of bodies cannot, for posthumanist feminist positions, result in a flat ethics: non-hierarchy does not mean homogenization; difference and differentiation are still fundamental and necessary facets of embodied being and relationality'* Philippopoulos-Mihalopoulos, A. *Spatial Justicee* p. 192. Neimanis, A. *Alongside the Right to Water, a Posthumanist Imaginary.* Journal of Human Rights and the Environment 5 (1), 5-24, 2014.
[450] C.f. e.g. Philippopoulos-Mihalopoulos, A. *Spatial Justice* p. 11.

> "Some bodies are stronger than others, weigh more, pull that side of the surface down and make other, weaker bodies circulate in predetermined ways. Humans and farmed animals, a pack of wolves and an unarmed human, global warming and low-lying islands, drought and bamboos, capitalist finance and the urban poor: encounters between unequal bodies in terms of power cannot be resolved through a normative flatness, but a strategic rupture." [451]

Borrowing from Douzinas and Gearey again, one can also argue that taking into account such understanding as well as position with regards to law, which may be understood as etymologically connected to the Greek word krinein, necessarily needs to be connected to critique as:

> "(…) krinein means also to cut; critique is a diacritical or cutting force, a critical separation and demarcation. It aims to distinguish between the just manifestations of a phenomenon and their inauthentic counterparts." [452]

Thus, carrying out the ethical task of posthumanist theory is very much a central task of jurisprudence. In another terminology, used by Philippopoulos-Mihalopoulos, such cuts- or *withdrawals*- always also needs to be understood as part of a practice from the inside of law[453] In this way, the inside-outside dichotomy is breached once again but also through a break of the normative/descriptive divide of the task of legal theory. Philippopoulos-Mihalopoulos expresses this as:

> "Just as the thing it revolts against, namely the law, withdrawal is materially embodied and emplaced. (...) But how does one do this? This seems to be the main question of current sociolegal and critical legal theory, whether this is national, regional or international. (...) How to reform and revolt? This is done

[451] Ibid.
[452] Douzinas, C., and Gearey, A. *Critical Jurisprudence, the Political Philosophy of Justice*, p. 38
[453] Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 11.

> through the only means available, namely the space and body of the law. We return to the law, not to conserve it and its institutional fantasies, but to reorient it. So, from within law and within matter."[454]

This understanding for discussing potential orientations/reorientations of law therefore directly connects to the immanent ethics put forward above as being specifically *posthumanist*. In alliance with the posthumanist theory advocated here, posthumanist jurisprudence needs to be understood as a very specifically engaged orientation and reorientation of law to counter negative affects of the anthropocentrism and advanced capitalism.[455] This subsequently also implies that posthumanist jurisprudence takes into account as a foundational aspect of law that there is always conflict between bodies and that such conflict is not carried out by equally heavy bodies. Learning from the posthumanist feminist stream of theory implies as, Philippopoulos-Mihalopoulos argues, that a non-hierarchized ontology of law can never result in a "flat" ethics. Thus, lessons from how differences between bodies are being produced are still valid. However, in line with the French readings of Spinoza, he also argues that we do never know fully what a body can do. There will always be excess of e.g. power. For this reason there is always a potential for disconnections or invisibilizations in relation to law.[456]

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[454] Ibid. p. 215.
[455] C.f. above 2.2.
[456] Philippopoulos-Mihalopoulos, A. *Spatial Justice*, p. 192

PART TWO: BODY

Communication technologies depend on electronics. Modern states, multinational corporations, military power, welfare state apparatuses, satellite systems, political processes, fabrication of our imaginations, labour-control systems, medical constructions of our bodies, commercial pornography, the international division of labour, and religious evangelism depend ultimately upon electronics. Micro-electronics is the technical basis of simulacra; that is, of copies without originals.

Haraway, D. *A Cyborg Manifesto* in *Simians, Cyborgs, and Women*. p. 165

4 PRODUCTS OF THE MIND

”Information wants to be free”[457]

In the beginning, there was body and mind.[458] Following this idea, the mind/body logic can be understood as a twofold boundary. First, it implies a separation between mind and body, within the boundary of "the human". Thus, a human being is divided in body and mind where the mind can control the body. The second aspect of the mind/body divide was the implications that it had just in distinguishing humans from the rest. As noted by Roberto Esposito, such divides rests upon e.g. the Christian doctrine where the distinction is made between body and soul, as well as well as where in modern philosophy a difference is produced between thinking substance (*res cogitans*) and extended substance (*res extensa*).[459] As he further contends:

> "The relation between the *res cogitans* and the *res extensa* is an insurmountable division. Not only is the mind not coextensive with the body, in order to recognize itself in its own essential principle, the mind must make itself autonomous from the body."[460]

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[457] See e.g. Wikipedia: Information wants to be free, online: https://en.wikipedia.org/wiki/Information_wants_to_be_free, accessed 20 March 2017. And e.g. Hayles, K. *How We Became Posthuman*, p. 1-24.

[458] The divide between body and mind is generally attributed the French philosopher René Descartes, which also is the one that Spinoza can be said to both criticize and build upon as discussed above 2.1. See also e.g. Hayles, K. *How We Became Posthuman*, p. 2-4 on this narrative.

[459] Esposito, R. *Persons and Things,* p. 6.

[460] Ibid. p. 109.

And, he continues:

> "The body is what the subject recognizes inside itself, as different from itself. To be able to deal with the body, the subject must separate itself from the body and keep it at a distance. Descartes' position on this is exemplary. Indeed, his entire philosophy can be regarded as a series of reflections of the body, but always from a point of view lying outside it, and defined precisely by this exteriority."[461]

In this manner, the human/body distinction may also be thought of as unified in the manner that the capacity of having a mind was what separated the humans from the rest of the world.[462] The posthuman condition discussed in chapter one puts both of these assumptions into question. More specifc, both e.g. Donna Haraway and Rosi Braidotti, identifies a change in this understanding based on a shift towards *advanced capitalism* and *post-anthropocentrism*.[463] Haraway also directly links the fact that the world can now be perceived of in this way rests upon a theory of language and control where the key questions revolve around how to determine "(...) the rates, directions, and probabilities of a flow of a quantity called information."[464]

In the first chapter of *How We Became Posthuman*, Katherine Hayles also identifies a rupture in the idea of the human specifically in relation to *cybernetic* discourse constructing information as a unit separate from humans. As she puts it, this understanding came about through certain narratological shifts. All of these shifts taken together made it possible to think of information as separate from humans. Thus, body and mind could become thought of as separate in a manner, which was even more pervasive from the dominating paradigm.[465] Whether viewed as a pattern to flow freely across time and space, as extracted memories from human

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461 Ibid. p. 109.
462 See e.g. Braidotti, R. *The Posthuman,* p. 1. "The Cartesian subject of the cogito, the Kantian "community of reasonable beings"(...)".
463 See above 1.2.
464 Haraway, D. *Cyborg Manifesto* in *Simians, Cyborgs, and Women,* p. 164
465 Hayles, K. *How We Became Posthuman*, p. 1-24.

brains possible to download on computer disks, or as this chapter will show, as a knowledge-based commodity, "the great promise of information is that it can be free from the material constraints that govern the mortal world."[466]

In any instance, this "freeing of information may be understood as a disconnection of the mind from the human body. This disconnection of the mind, or rather "products of the mind" is therefore here furthermore also understood as related to how we today can speak about a convergence between human and digital bodies. While Hayles connects this to "cybernetic" discourses, this chapter also suggests that a disconnection between mind and body also occurs in relation to how knowledge is treated as a commodity in innovation discourse. Thus, it is argued that a further freeing of information occurs as part of what generally is referred to as "knowledge-based" capitalism (or as is preferred here: advanced capitalism). This chapter thus builds upon, or rather intensifies the sight from e.g. Hayles that information is increasingly treated as separate, by placing such discourses also in relation to how discourses where knowledge is increasingly treated as a commodity.

4.1 A knowledge (product) society

It almost feels unfashionable now to speak about the knowledge society, information networks and so on. And still, we have potentially just begun to see the effects of what all of these conceptualizations point at: a renaterialization through introduction of digital bodies in the world, both as discourse and matter. As suggested by Hayles, the entrance into the posthuman stage in relation to digital bodies needs to start just here. Here, this implies starting from the narrative that capitalism in advanced capitalist societies has been through a transformation from an industrial stage towards a stage where knowledge, or rather, information, is made into the focus of capitalism.[467]

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[466] Ibid. p.13

[467] C.f. Hayles, K. *How We Became Posthuman,* passim.

More concretely, this implies a shift in the discursive tale of what mode of production characterizes capitalism. In general, this shift implies a change in narrative where industrial capitalism is contrasted from knowledge-based capitalism. Through enacting such divide, it is argued that e.g. what characterized the former stage is a production of value where industrial resources increased market profit. In the knowledge-economy then, it is generally held that what will increase the extraction of capital value is (the potential to enhance commodities with) knowledge resources. The discursive rationale behind this idea of a shift in the economy is that it is deemed impossible to continuously increase the production of capital value through industrial production. The reason for this in turn is due to the fact that mass-production as an effect of the merits of the industrial economy leads to decrease in cost of individual products. For this reason, the profit of production also declines. As the economy is understood to have become increasingly global, industrial production has become more efficient in terms of cost.[468]

As described by Amy Kapczynski, several thinkers early on advanced the idea that capitalism is dependent on *technological* dynamism and thus a connection to science, in order to thrive. Kapczynski however also claims that the role of *knowledge* was not recognized within neoclassical economic theory until the 1950s. By then, she points out, it was argued that there was a nexus between knowledge and economic growth where the high degree of productivity in twentieth-century America could be attributed to a residual value, put forward as *technical change*. She furthermore notes that this understanding is based on a view that a range of advances in knowledge develops the economy further by making processes of production more efficient.[469] Kapczynski also specifically notes that this development comes from a theorization of how the U.S. Economy was described in the 1960s as facing an increase in "knowledge-producing" labor in relation to the entire production base.[470] This shift was also identified through a vision that in the end of the

[468] C.f. Kapczynski, A. *Access to Knowledge: A Conceptual Genealogy,* in Krikorian, G, and Kapczynski, A. *Access to Knowledge in the Age of Intellectual Property,* p.19.
[469] Ibid. p. 18-19.
[470] Ibid. 19.

twentieth century, one-third of the U.S. workers were employed in the service industries while by 1980, more than two thirds were employed in that segment.

It was subsequently also argued that such move towards knowledge-production could be observed across all so-called developed countries. This development was identified as a move where agricultural, and to some extent also industrial, jobs decreased while jobs in service sectors, such as the education sector, increased. The largest degree of production increase was furthermore identified as a shift from being oriented towards industrial production sectors towards "information processing" sectors such as financial services, marketing, biotechnology, and software.[471]

This shift has also explicitly been referred to as a transition to an *informational* mode of development.[472] New loops of innovation and information processing are furthermore understood to make the *human mind* into the direct productive force of the production system.[473] As furthered by Kapczynski, this insight into the increased centrality of knowledge to economic growth seems to come with a claim that human society, or at least *certain* societies, is becoming more knowledgeable. This occurs simultaneously as other societies are being left behind regarding this transformation into a "knowledge" society.[474]

As she further notes, the claim of knowledge as an economic good under the discourse of how knowledge capitalism is narrated is also narrower than what one generally could attribute to the term. In a dominating understanding of the concept, knowledge should be understood as a set of organized statements of facts or ideas. These organized statements should furthermore present a reasoned judgment or an experimental result. Such judgment or result is then transmitted to others through some communication medium in some systematic form.[475] This, she argues, implies a perspective on knowledge, which is

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[471] Ibid. p. 19.
[472] Ibid.
[473] Ibid.
[474] Ibid. p. 20
[475] Ibid.

already intrinsically linked to the kind of knowledge central to economic productivity and efficiency.[476]

Furthermore the conceptualization targets specific scientific and technical knowledge, which have created incremental changes in modes of economic productivity. This shift has however of course also had implications to spheres, which one possibly would consider as being non-commercial, such as the fields of medicine and health. The society is therefore often narrated as having become more *knowledge intensive*.[477]

This understanding of knowledge, or the knowledge society, as a way to describe a new form of capitalism thus folds back to the cybernetic discourses on information as discussed by Hayles.[478] What becomes increasingly visible in these discourses is also how the separation between mind and body in relation to the framing of a knowledge-society is also narrated in a way where "the disembodied mind" or "information" is being turned into a savior of capitalism. This in turn is arguably what leads into an even more intense disconnection of the mind as a commodity in relation to thinking knowledge as a very specific *resource,* or as *innovation*.[479]

Even in cases where intervention in intellectual property rights has been sought, the idea of separation between material and immaterial substances still appears as a valid fundament for the intellectual property construction. To illustrate this, the discussions with regards to access to knowledge during the last years are very illustrative.[480] For example, the Access to Knowledge (A2K) movement has in several ways raised the concern that intellectual property rights are different from other property rights as they are argued to commoditize *knowledge*. Knowledge is in turn understood as a special form of *resource* by focusing on the dogma that it is important for society that knowledge is not locked-in.[481] The A2K

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476 Ibid.
477 Ibid. p. 20-21
478 Hayles, K. *How We Became Posthuman*, p. 1-24
479 See below section 4.2.
480 See for example, Kapczynski, A., and Krikorian, G. *Access to Knowledge in the Age of Intellectual Property* for an overview of these discussions.
481 As discussed above, this is even a starting point in the construction of intellectual property rights, which has caused a number of limitations to be built into the intellectual property construction.

movement has therefore focused much energy to argue that knowledge as such, in its *natural stage*, is free and belongs to all. All steps away from this natural condition should therefore be understood as a commodification carried out against the humanity's common resource pool.[482]

4.2 Knowledge as a specific capitalist resource

When one refers to the knowledge society or as is often done, the *network- or information society,* such understanding necessarily needs to be placed in light of the conceptualization of knowledge as a *resource* that may be *codified*, *organized* and *exchanged*. This is reflected also in the way which businesses are being organized and in more specific, how one speaks about the value of business, not as a form of production of products but rather as offering services, values and increasing business through innovation. [483]

Antonio Negri and Michael Hardt, have, in a vein similar to the posthumanist theories utilized here, described this shift as a stage where ideas, images, knowledges, code, languages and even affects now can be privatized and controlled as property.[484] Hardt however also points to the specific capacity of knowledge as commodity, which has been continuously raised from more critical theorists, that is, that knowledge is more difficult to control, to lock in, as compared to physical property.

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[482] See e.g. Kapczynski, A. *Access to Knowledge: A Conceptual Genealogy*, in eds. Kapczynski, A., and Krikorian, G. *Access to Knowledge in the Age of Intellectual Property* (2010) for an overview of these discussions.
[483] See e.g. Petrusson, U. *Intellectual Property and Entrepreneurship, Creating Value in an Intellectual Value Chain,* Göteborg: Center for Intellectual Property, 2004, passim
[484] Hardt, M. and Negri. A. *Empire* p. 40.

As Hardt expresses it:

> "There is a constant pressure for such goods to escape the boundaries of property and become common. If you have an idea, sharing it with me does not reduce its utility to you, but usually increases it. In fact, in order to realize their maximum productivity, ideas, images, and affects must be common and shared."[485]

Such understanding of knowledge may furthermore be connected to so-called peer-to-peer computing. As expressed by e.g. Don and Alex Tapscott, this came with the sentiment where many persons had high hopes for a change in terms of control over *information*. The idea was potentially, as they point out: naïve, but still it was believed that "[l]ow cost and massive peer-to-peer communication would help to undermine traditional hierarchies and help with the inclusion of developing world citizens in the global economy." [486]

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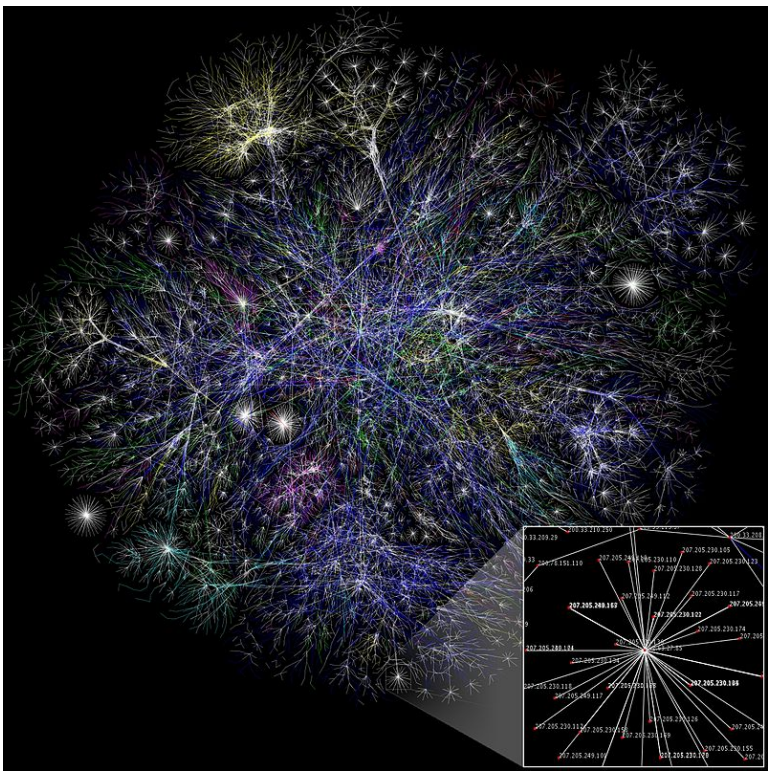
[485] Hardt, A. *The Common in Communism,* made available online: http://seminaire.samizdat.net/IMG/pdf/Microsoft_Word_-_Michael_Hardt.pdf p. 7. Also published as Hardt, M. *The Common in Communism,* in Rethinking Marxism: A Journal of Economics, Culture & Society, 22:3 , (2010)., 346-356

[486] Tapscott, A., and Tapscott, D. *Blockchain Revolution. How Technology Behind Bitcoin is Changing Money, Business, and the World* New York: Penguin Random House, 2016, p. 12



Partial map of the Internet based, January 15, 2005, Wikipedia[487]. Licensed under Creative Commons: Attribution 2.5 Generic License, CC BY 2.5[488]

The aspects of the less burdensome costs of reproduction of digital products as compared to the traditional carriers of intellectual content that traditionally have in this manner been recognized both in business (in theory as well as in practice) and critical theoretical streams such as those related to the Access to Knowledge-movement. Uncontroversial to say, the position of the former is generally that digitalization bound up with cost-free sharing of content is also bound up with destruction of large amounts of business value, which end up hurting the artists

[487] Wikipedia, online: https://en.wikipedia.org/wiki/Computer_network#/media/File:Internet_map_1024.jpg Accessed 20 March 2017

[488] Creative Commons License: Attribution 2.5 Generic License, CC BY 2.5 https://creativecommons.org/licenses/by/2.5/se/ Accessed 12 April 2017.

producing the content. The latter group however rather celebrates the democratic aspects that comes with technology that enables cost-free sharing of "resources" that can be understood as part of the commons belonging to all humanity, as being part of culture that all humans are joint authors to, and therefore should have equal access to.[489]

Critical theorists like Hardt have also raised that the excessive force of knowledge as a resource furthermore implies that it is both effectuated and grows through sharing.[490] Thus, they target the manner that knowledge, in its materiality is something that grows from sharing. If it is enclosed, it may therefore not be expanded upon. He furthermore argues that this implies that, ironically, the more that such resources are made into property, the more they reduce capitalist productivity. However, at the same time, if what is understood as common resources becomes expanded, it would also undermine relations of property in "(...) a fundamental and general way".[491]

Dominique Foray, professor in Innovation and Management, has in a similar manner argued that knowledge in itself can be understood as a partly non-exclusive resource, which is independent from competition due to the fact that several parties may occupy knowledge at the same time without diminishing the value of said knowledge. This, he argues, makes economics of knowledge different than economics related to physical goods. At the same theme, he also argues that this implies that knowledge is not subject to the same "tragedy of the commons" logic[492]

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[489] See e,g, Kapczynski, A. *Access to Knowledge: A Conceptual Genealogy*, in (eds.) Kapczynski, A., and Krikorian, G. *Access to Knowledge in the Age of Intellectual Property*

[490] Hardt, A. *The Common in Communism,* p. 7.

[491] Ibid.

[492] The tragedy of the commons, which is an increasingly controversial idea for all forms of resources, implies that resources cannot be held in common as this produces overuse of such resources since everyone with excess would be prone to maximize their own use of such resource. This idea builds upon several assumptions but probably most prominently that the persons co-habiting a resource are so-called homo oeconomicus, or individual well-fare maximizers. Also, it builds upon, as pointed out by critics for applying the idea on knowledge too, implying that it is a resource limited in use. See e.g. Bruncevic, M. *Fixing the Shadows,* p. 250-254

which physical goods may be attributed to if too many actors (over) utilize a physical resource.[493]

In short, the tragedy of the commons is generally told as a story for why property is needed since common resources would otherwise be overexploited. For example, those who believe in these ideas, have argued that if a number of herds all have access to a specific gracing area for their animals, they would all attempt to reap most benefits from it. This is furthermore described as that it would lead to a situation where the resource is destroyed due to overuse and no one would be best of in the long term as no one would be able to use the resource. For this reason, he argues, a resource may be benefitted from being held by just one party as this party then has the possibility to control access over the property. [494]

Persons such as Foray and Hardt, though writing from different angles have then countered this argumentation with regards to knowledge as commodity. And as seen, they do this by showing that there is something different in considering knowledge as a commodity as compared to other things that previously have been commoditized. The reason for that is that knowledge in its materiality is narrated as growing from sharing. For this reason, one could say (and it has been said) that holding knowledge as commodity risks creating lock in, rather than openness or common owning. This in turn is perceived as harmful in relation to trying to extract value from knowledge as a commodity.[495]

In this manner, knowledge and information, has also been described as being very special in relation to other commodities. The reason for this identified complexity is however not necessarily identified in the fact that these goods are pictured as disembodied. Rather, they are understood as posing problems in relation to their materiality in the manner that they may not as easily be controlled as other ”resources”.

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493 Foray, D. *The Economics of Knowledge*, Cambridge and London: The MIT Press, Massachusetts, 2006, p. 14-19.
494 Bruncevic, M. *Fixing the Shadows,* p. 227.
495 C.f. e.g. Heller, M. A. *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets.* Harvard Law Review 111, no. 3(1998): 621-88
Heller, M.A. och Eisenberg, R. *Can Patents Deter Innovation? The Anticommons in Biomedical Research.* Science, Vol. 280, Iss. 5364, (1998) pp. 698-701.

Thus, it seen as a problem or a hope, that *knowledge* cannot as easily be captured and traded with.[496]

4.3 Knowledge as a complex commodity that still can be managed

In this manner, the disconnection of mind from body in relation to knowledge based business, can be understood to come with a narrative that argues that knowledge is a difficult resource to commodify compared to physical resources. Foray for example argues that due to the specific materiality of knowledge, knowledge needs to be understood as a *fragmented* resource, both with regards to its functions and with regards to geographical reasons. Knowledge is in accordance with such reasoning also to be understood as difficult to capture, as some of its *parts* should be understood as "tacit" and difficult to codify.[497] Within the framework of understanding knowledge as a resource difficult to commodify, business theories have therefore been developed where different ways have been suggested in which knowledge can be *captured* and *packaged* in order to reach a degree of firmness, which is similar to physical goods.[498]

These discussions are reflected in numerous other discussions related to knowledge management and innovation theory, for instance in the emergence of specific scientific disciplines, discussing how to best manage knowledge in order to make capitalize it. One example of such theoretical developments is the so-called intellectual capital management stream, which bridges business, technology as well as legal research. The aim with this stream is just to explore how one may treat knowledge as a business, or at least- societal, asset. Examples of how to conduct such packaging of knowledge into intellectual assets include, logically, an increased attention to intellectual property rights (IPR) and the strategies behind deciding what (and what not) to protect as IPR, but also other

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496 Hardt, A. *The Common in Communism;* Foray, D. *The Economics of Knowledge,* p. 14-19; Heller, M.A. *The Tragedy of the Anticommons.* Working paper no. 40, 1997. Heller, M.A. och Eisenberg, R. *Can Patents Deter Innovation? The Anticommons in Biomedical Research.*
497 Foray, D. *The Economics of Knowledge,* p. 14-19.
498 See e.g. the intellectual asset management tool suggested by Petrusson, U. *Intellectual Property & Entrepreneurship,* p. 187.

more refined understandings of how knowledge may be controlled as an asset. Specifically noteworthy is that intellectual capital management includes not only the general (lawyer oriented) understanding control over knowledge through IPRs but also through human resource management/strategies/documents, shareholders agreements, licensing agreements (which may go further than mere out licensing of IPRs), branding strategies, technology development strategies, etc. [499]

During the last decade, the discussions have also specifically centered on how companies can grow their general productivity through business models that treat property in more sophisticated ways in terms of openness and closure. One example of such discussion is the framework that advocates so-called Open Innovation. Such Open Innovation discourses, surprisingly not unlike e.g. Hardt and Negri, emphasizes the potential of knowledge as something that does not necessarily best grow when being locked in as a traditional physical asset or property. Thus, it has been suggested that companies need to develop more advanced ways of understanding which assets should be kept as proprietary, closed, assets, and which assets should be opened up to external actors: previous competitors, consumers, and similar, in order to maximize innovation and thus, the holding of knowledge as a commodity.[500]

Related to the discussions of managing openness of knowledge resources in order to maximize capitalist as well as other values, is the discourse on understanding how to treat knowledge as different elements, which can be constructed as larger *platforms.* For example, the innovation theorist Henry Chesbrough has argued that the most developed form of co-creation between actors in a business model is the so-called *platform based business model.* In such business models, it is suggested that "key suppliers" and consumers may be understood as *cooperative partners* sharing technological as well as other business risks.

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[499] See e.g. Petrusson, U. *Intellectual Property and Entrepreneurship,* p. 187

[500] Chesbrough, H. *Open Innovation*, See also e.g. Petrusson, U., Rosén, H., Thornblad, T. *Global Technology Markets, the Role of Open Technology Platforms,* Review of Market Integration, 2 (2010) 333-393.

The platform has furthermore been argued to function in a manner where the customers use and need a service is integrated in a manner, which enables successive development of the platform and its services in line with the customers' needs.[501] This framework is generally framed as a response to the common understanding of how business is conducted, based on the assumption that a single organization (a company or similar) produces a product, which it sells to consumers. Platform based business models on the other hand are briefly understood in these settings as organizational models that do not need to be controlled only by one business actor. Furthermore, it has been argued that platforms do not necessarily produce specific goods that are transacted from a business actor to a consuming party but rather may function as a form of network where different parties are involved in different stages, which make up the "value proposition" (that is, the reason why one should buy a certain product/service) related to the platform. The platform construction is furthermore and, through this, also suggested to obfuscate the distinction between what the actual value proposition is, and what is the market for this proposition (that is, where you buy into this value).

As an example of platform based organizations, just think about the business models that have been developed in the smartphone industry, where it is as important (or more!) which app store that is connected to a specific cell-phone, as the actual phone is. The app store in turn is generally described as a market, but the iPhone may also be narrated as a core for a technology platform where you add specific apps to reach the maximal value of the phone. The platform concept as well as the construction of platforms has therefore been suggested as specifically well apt tool in pursuing the "generative" character that information based matter is suggested to have. The concept is furthermore based on an understanding that products and technologies may be perceived as *modular*. Their modularity enables the construction of a platform based business model.[502]

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[501] Chesbrough, H. 2011. *Open Services Innovation*, p. 107

[502] See e.g. Gawer, A. *Platform dynamics and strategies: from products to services,* in (ed.) Gawer, A. *Platforms, Markets and Innovation*

To summarize the general understanding of the platform concept, it is generally utilized to argue that the platform functions specifically as a construction for designing *environments* largely out of technological elements in order to connect and create increased network effects between different organizations, technical bodies, and human bodies.[503] This implies an understanding of information as different technological pieces, and interfaces, that can build on to each other,[504] and thus it functions as a de facto business practice connected to advanced capitalism.[505]

Platform control can in this manner furthermore be enabled through e.g. intellectual property constructions where actors such as e.g. the Lego company can control the design of the Lego brick and therefore hinder connectivity.[506] For example, they have historically done so by patenting the traditional Lego brick. Thus, the physical embodification of the patent claims, the Lego brick, functioned as a building brick upon which they could build control over a specific game (how to combine the

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503 C.f. Ibid.

504 As is also well known about LEGO, they have actively tried to hinder modularity between their own pieces and pieces from other brands. See e.g. the failed attempt to outstretch intellectual property control from patent control where the protection duration of the trade mark protection for three dimensional designs expired: Intellectual Property Expert Group, *LEGO, and (Un)Happy End* Online.

505 See e.g. Gawer, A. *Platform dynamics and strategies: from products to services,* in Gawer, A. Ed. *Platforms, Markets and Innovation*

506 Compare however the failed attempt to outstretch intellectual property control from patent control where the protection duration of the trade mark protection for three dimensional designs expired: Intellectual Property Expert Group, *LEGO, and (Un)Happy End* Online. LEGO company however seems to continously work towards the establishment of intellectual property protection for their designs as communicated in their policy named Fair Play: "In the LEGO Group, we believe that any original product design should be protected against copying for as long as it is produced and marketed. And that it should be possible to stop such copying and other infringements easily. We also believe that designs, company names and trademarks should not be used in unrelated settings without the owner's consent. Each year, our legal department handles hundreds of incidents involving infringement of our rights, keeps track of developments worldwide and regularly brings infringers to court, making sure that consumers can have confidence that anything bearing the LEGO Group's trademarks or characteristic product features is a LEGO brand product." LEGO: *Fair Play*: Online.

pieces together, as only those pieces they supplied could legally connect to each other while under patent protection).[507]

4.4 Products of the mind- erasure of the human body

A starting point for theorizing the posthuman condition is that commodification of new matter has made possible a new form of advanced capitalism.[508] Through this chapter, it is specifically argued that the potential for commodification of digital bodies is specifically aided by discourses that treat knowledge as a commodity. These discourses are also connected to the insight by Hayles that knowledge is treated as possible to disconnect from the body as part of cybernetics discourse.[509]

As discussed in this chapter, one may also argue that this disconnection between mind and body, in relation to digital matter is facilitated by the narratives where knowledge in more general terms are thought of as a commodity. As discussed in this chapter, this also implies a difference in how matter is narrated. A very specific narrative rupture is how this is treated as the establishment of a new form of capitalism. In more specific, this form of capitalism is presented as a form of knowledge capitalism as opposed to industrial capitalism. This shift implies, as discussed above, that knowledge, often through digitalization, is discussed as something that may be separated from bodies. Furthermore, it is often discussed in a dynamic manner, as e.g. something that needs to be shared in order to stay alive (or at least: be free).

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[507] See e.g. Pottage, A. Conference Presentation: *Meaning and Embodiment: The Case of the LEGO Block.* Conference: *Access to Material and Immaterial Goods The Relationship between Intellectual Property and its Physical Embodiment,* Faculty of Law, Universität Luzern, Lucerne Switzerland.

[508] See above 2.2.3 and e.g. Cooper, M. *Life as Surplus: Biotechnology and Capitalism in the Neoliberal Era*

[509] See above and Hayles, K. *How We Became Posthuman*, p. 1-24

The conceptualization as well as practice of knowledge as something that may be understood as different pieces, which can be constructed as a platform or as parts of platforms, is furthermore specifically highlighting in relation to this understanding. In relation to this conceptualization, one may recall the initial insight by Donna Haraway. As she puts it, the development of digitalization (or at least a narrative of the same) alters our understanding of both mind and body. Thus, "we" are no longer humans *or* digital bodies but rather bodies that may be disassembled and reassembled as pieces of information. [510]

From this insight, we may now return to the tool of the body as a means for forwarding the analysis of the change in narratives that here appear. As discussed in chapter two, the understanding of the body in a posthumanist sense can be understood to aim at bridging the differences between bodies. [511] As Hayles argues, the consequence of the developments of cybernetic discourse has furthermore been just that one now may perceive humans and digital elements as more similar.[512] Thus, the production of knowledge and information as independent of human bodies may be understood to lead to a flattening out of difference between different materialities which may appear as very similar to the body concept advocated here.

However, as continuously discussed in chapter one-three, the aim with posthumanist theory developed in the stream advocated here is also to understand which affects that specific constellations of bodies produce. When thinking how the difference between mind and body is being acted out in relation to the discourses put forward here, it is therefore vital to acknowledge which aspects of power that also are enacted through these processes. As discussed in this chapter, there occurs a shift when knowledge is treated as a commodity, especially in relation to digitalization. This shift implies that products of the human mind are increasingly treated as means to support capitalism. Instead of talking about a flattening out of a mind/body divide to the detriment of e.g. anthropocentric and capitalist thinking, what here occurs is an increased

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[510] Haraway, D. *Cyborg Manifesto* in *Simians, Cyborgs, and Women,* p. 162
[511] See above 2.4.1.
[512] Hayles, K. *How We Became Posthuman*, p. 10

hierarchization of the human under the dominating understanding of the human.[513]

This disconnection can, as discussed subsequently be understood to lead to the freeing of knowledge from the human. As also discussed, this freeing of knowledge- or movement of knowledge towards a body of its own- does not occur in a "flat" manner. Thus, the disentanglement of mind from body does not imply a flattening out of the difference that body and mind have upheld in traditional thought.[514] Rather, as part of a discourse (as well as practices) connected to advanced capitalism, the freeing of knowledge from human body, plays a vital role in expanding the boundaries of capital. Such move can therefore be directly linked to the production of negative affects causing the posthuman condition as described in chapter one.

Ironically thus, this form of productification of the mind therefore both makes knowledge into a body of its own as well as continuously emphasizes the mind/body divide related to liberal humanist ideals. As will be come increasingly clear in the next chapter, this process is also aided by (and moved beyond) the construction of intellectual property.

[513] C.f. Ibid. p. 5-6

[514] See chapter one on this difference and its hierarchichal implications for the production of *the human.*

5 DIGITAL BODIES AS INTELLECTUAL PROPERTY

> "(...) our patent and copyright statutes have been amended repeatedly. From its beginning, the law of copyright has developed in response to significant changes in technology. Indeed, it was the invention of a new form of copying equipment - the printing press - that gave rise to the original need for copyright protection."[515]

The production of digital bodies, can, as discussed in the previous chapter, be understood to introduce- or at least intensify- a rupture in the body/mind divide of humans. Through analyzing these discourses in relation to the body tool of posthumanist theory, I argue that one could start seeing disentanglement between human mind and its separation to specific objects- or bodies of their own.

As pointed out, this was specifically prevalent in the manner how human knowledge increasingly was framed as a commodity. This can, as argued in that chapter, be understood to produce a lessened difference between body and mind in relation to human bodies. The narratives of digital bodies may therefore be understood as a *flattening* out of the distinctions of matter, or bodies, previously considered as distinct as *connected to the mind* versus *connected to the body*. As discussed by e.g. Hayles and Haraway, this move is specifically prevalent in relation to how digital embodification has been produced as something separable from human embodification.

The previous chapter therefore makes visible a form of reformulation of what is considered as *matter* and therefore as something

[515] United States Supreme Court Iin Sony Corp v. Universal Studio, Inc, (The Betamax Case) Also cited in Schollin, K. *Digital Rights Management, the New Copyright*, p. 26.

being of interest to the production of capital. Specifically, I pointed out that the increasing potential in viewing knowledge as commodity plays out in the force of digitalization. The reason for this is that digitalization has the capacity to function as a material force to codify knowledge into information that can be traded, and how such digital things differ in terms of (re) production due to their materiality.

As a contrast to the discussions where knowledge is now considered a resource, there was indeed a time, when intellectual property rights, or more specifically literary and artistic productions were constructed as material things rather than embodied intangible works.[516] As Radin also argues, the traditional view also under liberal humanism, is still that knowledge commodities are something that is intertwined with personhood.[517] Thus, if we stop for a moment and go back to the previous chapter, the traditional conceptual understanding is that knowledge does not pre-exist as a separate material body. Instead, "knowledge" is integrated as part of human bodies. Historically it has subsequently not necessarily been possible to consider knowledge as part of what may be treated as property.[518] Today it is however relatively uncontroversial to claim that intellectual property makes possible quite substantial property control over knowledge. This change has furthermore been connected to the understanding of digital elements as property.

This production of k*nowledge* as well as *digital bodies* in more specific is also part of some of the most discussed topics of (intellectual) property during the last decades. These discussions have broadly hard fights of hackers against company actors in the definition of what digital matter *is*. And after market interests had succeeded in defining digital matter as something with property value rater than a general "text" or "knowledge", these discussions further went into questions about if digital matter could be controlled. They have also covered discussions on what level of

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[516] Pottage, A., and Sherman, B. *On the Prehistory of Intellectual Property* in *Concepts of Property in Intellectual Property Law* (eds.) Howe, R, H. and Griffiths, J. New York, Cambridge University Press 2013, p. 13.

[517] I will return in depth to this in chapter seven.

[518] See e.g. Pottage, A., and Sherman, B. *On the Prehistory of Intellectual Property* in *Concepts of Property in Intellectual Property Law* (eds.) p.14

restriction one can put on digital matter in order to make it even more exclusive.[519] All of these discussions can, under the perspective of posthumanism, be understood as all being about how one want to sustain the divide between body/mind by vesting the mind in the human. Even in the cases where it is understood as too late to hinder the development of intellectual property, the arguments against further inclusions of intellectual property still remain within the broad fight for "free" knowledge.

Intellectual property theory has in general been fairly silent on the subject on how digital bodies have become property. There are exceptions of course, whereas possibly the works of James Boyle, Margaret Jane Radin and Jonathan Zittrain are all well known and will all be utilized here. None of these theorists use an explicit posthumanist perspective. However, similar to posthumanist theory, they have discussed how commodification of knowledge occurs through digital technology.[520] Radin has also directly argued that the conceptualization of information has been pursued through in ways where they have been connected to, or likened with, physical objects. She has also connected this to an idea of power, by proposing that such "tangibilization" of information has occurred as strategy of market actors. As she also puts it, this has enabled proponents of propertization to bypass a more traditional balancing rhetoric established through the conceptual construction of copyright. Such more nuanced rhetoric would otherwise to a larger degree have had to argue for the benefits of control over information as property versus benefits of "free competition" and "flow of information".[521]

Radin argues that one can point at this development through a number of factors. One of these factors is that more and more things now can be considered as *tangible objects* in which information can be

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[519] See e.g. Schollin, K. *Digital Rights Management,* p. 58-61 for an overview of these discussions and battles.

[520] Boyle, J. A *Politics of Intellectual Property: Environmentalism for the Net?*
Boyle, J. *The Second Enclosure Movement and the Construction of the Public Domain* (2003). Online publication at http://scholarship.law.duke.edu.
, Radin, M. J. *Information Tangibility,* Zittrain, J. *The Generative Internet.*

[521] Radin, M. J. *Information Tangibility* p. 410

embodied. As an example, she mentions that today computerized information in ephemeral memory can amount to a "copy". When knowledge may be considered as possible to stabilize as a copy, it may therefore be captured as commodifiable knowledge under copyright. Technology does in this way provide an increasing number of possibilities for commodifying information.[522] This argument is thus similar to the one made in relation to the previous chapter in relation to how commodification of knowledge in general has been carried out.

In other words, both Boyle and Radin identify how material changes combined with knowledge-based business oriented discourses all build up to the point that knowledge, described as information, and furthermore, as *data,* can be considered as an object of exchange. Several theorists, as well as advocates from the A2K movement, have also pointed out that the intensification of propertization of code also occurs through so called *technological barriers* as well as *contract*. The to this stage most prominent forms of technological barriers are often referred to as digital rights managements and have been specifically discussed e.g. by Kristoffer Schollin in his thesis from 2008.[523] In relation to contracting, it has for some time been pointed out that standard agreements appear to collapse in the distinction between the contract object and the contract as a document. Radin argues that this development is specifically distinctive with regards to online agreements.[524] I will here treat some of these discussions as a part of visibilizing how digital embodification occurs both through traditional intellectual property concepts as well as concepts that may be understood to stretch out such protection.

This part will subsequently make visible some of the arguments on how a further separation between body and mind can be said to have occurred through intellectual property in relation to digital matter. Furthermore, it will argue how such development can be further made visible in relation to the posthumanist body concept.

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[522] Ibid. p. 416
[523] Schollin, K. *Digital Rights Management.*
[524] Radin, M.J. *Boilerplate, The Fine Print, Vanishing Rights, and the Rule of Law.*

5.1 A mind/body divide through the legal conceptual divide between property and intellectual property

The conceptualization of property law significantly operates with differentiations into material and immaterial matter. This divide is expressed as one of the most persistent ideas of intellectual property rights. In more specific, this divide manifests itself in the manner that it is continuously iterated that intellectual property rights consider the protection of intellectual efforts, or even, *ideas* and not *physical* objects/things. The reification of this notion is obvious just by considering the terminology used to describe intellectual property rights as *intellectual* or, in German based languages: *immaterial* (rights). In Sweden, this difference is furthermore echoed in many instances of legal conceptualizations regarding law related to trade. One prominent example may be identified in how immaterial objects or "services" are treated as a silenced *other* in the general sales of goods doctrine. With some difficulties, intellectual property rights have however been accepted as falling under the conceptualizations of sales that adhere to other commodities.[525]

Furthermore, this understanding of a divide between material and immaterial matter is thus also folded back to the more general idea in society where ideas are perceived as part of the activity of the mind- and thus disembodied, or intangible.[526] For this reason, it is assumed that intellectual property rights depend on the division between tangible and intangible things.[527] The rendering of information into a body of its own has been significantly explored in relation to how biotechnology can be said to propertize parts of the human body[528] as well as initiatives such as

[525] Håstad, T. Den *nya köprätten,* 5 ed.,Uppsala: Iustis, 2003, p. 29, 30.
[526] See about the rationality of treating something of the mind as disembodied e.g. above 2.41.
[527] Pottage, A., and Sherman, B. *On the Prehistory of Intellectual Property* p. 11.
[528] See about the access to medicine movement, in Kapczynski, A., and Krikorian, G., *Access to Knowledge in the Age of Intellectual Property*
[528] Ibid.

the idea of the Human Genome Project.[529] The questions in these initiatives have, to simplify, been pursued to hinder elements of the human body to be turned into property. In spite of this, one may argue that this line is made specifically difficult to withhold in relation to medical technologies. A much discussed case in relation to this is the so called "hairy leukemia case". In this case a doctor derived bodily material from a patient under surgery to remove cancer cells. Afterwards, the doctor performing the surgery claimed this material as property. This occurred in spite of a lack of commitment from the patient to do so. As a basis for lack of consent, the patient further claimed that the material should be seen as part of his body. The court however ruled in favour of the doctor and subsequently the material was seen as information and not a part of the human body.[530]

As Davies and Naffine comments the case, one may argue that:

> "Genetic sequences, while derived from a physical body are reduced to codes or information: it is not the ownership of the actual body which is at stake, but rater the control of information derived from the body."[531]

In spite of such obviously fluctuating understanding of what is a human body and what is information, Davies and Naffine also argues that:

> "Because intellectual property concerns abstract objects rather than physical things, the object of intellectual property in a person is not the body but rather abstractions of the self which are intrinsically repeatable."[532]

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[529] The Human Genome Project webpage: https://www.genome.gov/10001772/all-about-the--human-genome-project-hgp/ accessed 1 April 2017.
[530] C.f. the case: *Moore v Regents of the University of California.* Bhandar, B. *Disassembling Legal Form: Ownership and the Racial Body*, p. 112-116; Davies, M., and Naffine, N. *Are Persons Property?* p. 11-12.; Bruncevic, M., and Käll, J. *Modern immaterialrätt* p. 220-221
[531] Davies, M., and Naffine, N. *Are Persons Property?* p. 123
[532] Ibid. p. 125.

As noted by e.g. Radin, it is clear that as an example of this divide, modern copyright is conceptually constructed upon philosophical fundaments vested in Enlightenment.[533] Thus, intellectual property rights are intrinsically connected to the perception of the human as a rational being "of the mind" which is so thoroughly criticized in the posthumanist theory as has already been discussed.[534]

By utilizing the posthumanist theoretical perspective, it can furthermore be acknowledged as a starting point that the dominant perception of intellectual property theory, this notion of Enlightenment values where the human is put in center (including human rationality).[535] This is mirrored e.g. in an understanding of the importance of the work of minds. This production of a conceptualization of the separation of works of mind through intellectual property is furthermore linked to an understanding that intellectual production functions as a form of activity that advances the continuous enlightenment of society. Also, this implies prominently the idea of an individualist authorship as something that deserves recognition, as well as property protection.[536]

5.2 The burdensome embodification of digital bodies under intellectual property

The rendering digital of "knowledge" has generally been perceived as a troublesome encounter for the conceptualization of intellectual property. The reason for this is generally attributed to the fact that in spite of its character as "intellectual", "immaterial" and "disembodied", the conceptual understanding of intellectual property rests upon an idea that knowledge needs to be embodied anew when leaving the mind of the human to become an object. Intellectual property right conceptualizations have however been transforming over the years as the matter of control has been changing (or if it is the other way around, or

[533] Different genealogies of copyright that reaches furter back than the Enlightenment however exist such as e.g. Madero, M. *Tabula Picta,* Trans. Dascha Inciarte, M., and David Valayre, R. Philadelphia: University of Pennsylvania Press, 2010, e.g. p. 1-4.
[534] See chapter two.
[535] See how this is a rationality criticized in posthuman theory above 2.2.
[536] See e.g. Davies, M., and Naffine, N. *Are Persons Property?* P. 5-9

both). This development can be specifically made visible in relation to the encounter between digital technology as a means to embody not only "itself" as separate[537] but also as a means to function as a "medium" for knowledge under intellectual property law. This may specifically be made visible in relation to the discussions of how to place digital technology under the conceptual regime of *copyright*.[538] The separation from human mind to where knowledge receives a body of its own, under the conceptualization of intellectual property, has therefore been dependent on a construct where the human mind may be fixated in a specific medium other than the human body. Traditionally, this has implied that knowledge has had to be entangled with something physical in order to be perceived as a body that may be separated through intellectual property.[539]

For example in the legal conceptual construction of copyright, this takes place through the thought that knowledge is possible to commodify when it may be externalized ("fixated") and also, embodied ("expression" as opposed to "idea") in a tangible object.[540] This implies that the legal construction of copyright also rests upon an additional distinction between tangible objects and intangible information. In this manner, a "copy" is produced as a tangible physical object and (in some countries) "fixation in a tangible medium of expression" is a requirement for copyright protection.[541] Even in countries where fixation is not required, the fact that information becomes embodied in a more durable manner is a conceptual prerequisite for control over information through copyright.[542]

Thus, for example, in order for my *thoughts* to become subject for copyright, I need to write them down in a manner so that they can be understood as a "work" in the sense of the copyright legislation. There is no requirement that this is done in a qualitative way (which is thus

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[537] As described in chapter four, as well as generally in Hayles, *How We Became Posthuman*, p. 1-24.
[538] Radin, M. J. *Information Tangibility* p. 405
[539] See e.g. Bruncevic, M. *Fixing the Shadows,* p. 146.
[540] Radin, M. J. *Information Tangibility* p. 416
[541] Ibid. p. 406
[542] See e.g. Bruncevic, M. *Fixing the Shadows,* p. 146.

different from having them pass as a thesis) but they cannot stay in my head, fingers or other parts generally considered as being part of the human mind/body. In this way, commodification of knowledge is linked to an embodiment in a physical object.[543] Therefore, one may consider e.g. a story as something possible to separate from the person telling the story as well as for making it tangible through for example, a book or a recording of the story.

As further pointed out by Pottage and Sherman, e.g. the distinction between the *embodied form of an idea* and *the idea* is one of the ways that materiality plays out even in relation to "intangibles".[544] This understanding of a separation between idea and embodification of idea has also been understood as a means to balance the commodification of knowledge through intellectual property rights. For example, the *objects* in which intellectual ideas have been vested are generally believed to function to some extent as "regular property" objects after that they have been put out on the market by the right holder/s in a specified, legitimate way.[545] Even if copyright is generally described as a means to protect the output of *creative* actors, the *formats* of these works have however changed over time in parallel with the development of new matter and techniques: from paper to digital media etc.[546]

The introduction of digital technology caused "problems" for intellectual property rights law already from the start. In more specific, he argues that these problems appear to have been raised just on the question of what the object that may be controlled under intellectual property- and in more specific, copyright- is. The conventional answer, he furthermore adds, is that the object of control as an intellectual phenomena, or "a work". This phenomenon is then perceived as distinct from the various material manifestations it may have.[547] Thus, this kind of view relates to the idea of how intellectual property, while separated from

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[543] Radin, M. J. *Information Tangibility* p. 406

[544] Pottage, A., and Sherman, B. *On the Prehistory of Intellectual Property* in *Concepts of Property in Intellectual Property Law*, p.11

[545] Ibid. p. 26.

[546] See e.g. Burk, Dan, L. *Copyright and the architecture of digital delivery*. First Monday, Vol. 19, No. 10. (2014),
available online: http://firstmonday.org/ojs/index.php/fm/article/view/5544

[547] Schollin, K. *Digital Rights Management, The New Copyright,* p. 35.

the human body as knowledge then still retains a new body. Yet, its function as knowledge also has a separate life as "an idea" or "a work". The second and conflicting idea then is that the object of control under copyright is noting more than the "various material manifestations at hand" in the legal construction.[548] Thus, in the second understanding, the distinction between the intellectual creation, or object of mind, is collapsed to its material manifestation. The conceptual construction of patent law on the other hand is generally believed to consider such functional aspects why ideas can be protected and not the mere expression of these ideas (however, some degrees of expression are required also in patent law, e.g. with regards to the general deployment of the patent concept).[549]Schollin further argues that:

> "In the digital world of global networks the use of the concept of an intellectual object has increased. This development has taken place as material manifestations have become more and more fluid. (...) Compare the tangibility of a seized pallet of counterfeit books to one digital .avi video-file that can be duplicated thousand fold from one second to the other, or to being deleted in the next. It is clear that the abstraction that the copyright work provides, is more needed than ever, but also more complicated."[550]

Radin specifically outlines the problem that digital materiality poses to the boundaries that previously has functioned as internal conceptual boundaries within copyright. As she notes, previously copyright conceptually treated works such as literary texts, movies and musical recordings differently. With the advent of digitization, however, she

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[548] Ibid. 35.

[549] As noted by Radin, the patent concept is dependent on a distinction between tangible and intangible and its allied divide between functional and non-functional. More concretely, she adds, "[p]atentable subject matter is a functional machine or method, under the doctrine of utility (which is called industrial applicability outside of the United States)." The conceptualization of "functionality" or "industrial applicability" can according to Radin furthermore be understood as what separates the patent concept from the copyright concept. Radin, M. J. *Information Tangibility*

[550] Schollin, K. *Digital Rights Management, The New Copyright,* p. 36

argues that it has become difficult to see why the differentiation between these works should be maintained.[551]

Another factor according to Radin, which arguably has increasingly produced a conceptual possibility to consider information as tangible is the analogies pursued by business actors to produce an understanding of information similar to physical objects such as real estate. [552] These analogies play out in the terms of increased property claims but also in the more critical theoretical engagements with intellectual property forwarded by e.g. the A2K-movement through terms such as the public *"domain"* of information.[553] A specifically telling example of analogies to the physical world is, as Radin points out, the concept of *cybersquatting*, which has been used to depict the use of a domain name that infringes on someone else's claim of a trademark.

Another example is of course the analogy with "stealing" a physical object used with regards to illegal downloading (or streaming) of content such as music and movies.[554] The piracy movement has, as is well-known, met such claims with arguments that stealing can only occur when an object that is exhausted with its specific form, is taken. As an alternative to both the "making-physical" of knowledge as well as the piracy response to digitalization, Radin suggests that one instead of considering code as tangible and possible to subject to intellectual property rights, one could consider it, as a "(...) momentary arrangement of electrons in a computer memory". However, through e.g. legal conceptual developments in courts, the idea that has been conceived of as the common understanding is that such arrangements should indeed be considered as tangible physical objects, and thus as *copies*. In this sense, Radin points out, almost everything a computer does can be understood to involve copying and thus, such output can be rendered subject to (at least) copyright.[555]

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551 Radin, M. J. *Information Tangibility* p. 405
552 Ibid. p. 416
553 See e.g. Kapczynski, A. *Access to Knowledge: A Conceptual Genealogy*, in (eds.) Kapczynski, A., and Krikorian, G. *Access to Knowledge in the Age of Intellectual Property* on the notion of "public domain"
554 Radin, M. J. *Information Tangibility* p. 405
555 Ibid. p. 406

5.3 A digital body: textual, machinic or both?

Another specific aspect in relation to digital embodification and intellectual property is that digital objects have been understood to posit an ambiguous conceptual place. This ambiguity is prevalent in the manner that digital bodies under the conceptualizations of intellectual property have been made subject of property both under copyright and patent law.[556] In terms of intellectual property conceptualization, they can therefore, as pointed out by Radin, be considered as *texts* when one consider the *language*, which is used to produce a specific *machinic* effect. This language is generally referred to as code. When computer programs accomplish a specific task, they may however be considered as *machines*. In this way, the inclusion of computer programs under copyright interestingly can be said to push both patent law and copyright to its extremes in terms of the conceptual dualisms they operate under.[557]

In relation to this ambiguity, Radin argues that the fact that computer programs can be considered as literary works under copyright is anomalous as the value of computer programs is their very functionality and not their texts. For this reason, computer programs can be considered both under copyright and patent law.[558] Radin however points out that the anomaly of including computer programs both under copyright and patent law is slightly obscured by the fact that these legislative bodies treat computer programs differently. [559]

This differentiation plays out in the way that patents are conceptually focused on the protocol for accomplishing the task no matter in which way the programmer decides to code it. Thus, it is focused on "the idea" of computer programs. The copyright concept on the other hand is according to her (as well as what could probably be

[556] By this, I am not suggesting that this is a position caused merely by the matter of computer programs, but of course is also an outcome of claims made by business actors which have found it more beneficial to patent computer programs. However, the ambiguity in the matter of digital objects still break with the materiality of previous objects that could be considered as intellectual property: or at least how such objects have been framed in terms of materiality.
[557] Radin, M. J. *Information Tangibility*
[558] Ibid p. 407
[559] Ibid.

understood as a general belief in modern intellectual property doctrine) focused only on the *expression* of the code and does not protect the idea behind the programming. However, as Radin notes, copyright arguably also attaches to the structure, sequence and organization of code as long as the more abstract features can be determined on the level of expression rather than idea. The difference between these two is of course difficult to maintain and as Radin argues, at the point where structure sequence and organization collapse into protocol or algorithm, the distinction between *text* and *machine* collapses.[560]

5.4 A body too disembodied for intellectual property?

To this stage, we may contend that there seems to have been considerable emphasis placed on perceiving digital bodies as objects that can be controlled either as texts or machines under intellectual property law. In spite of inhabiting a materiality that the legal conceptual apparatus have had difficulties to arrange under its traditional notions, embodification under intellectual property rights law has thus to significant degree been successful. In spite of this success, it has however continuously been apparent how difficult it is just to control the body of digital matter under a regime, which to high degree produces limits of bodies under other ideas of physicality. As both Hayles and Schollin points out from their different perspectives: what is told as specific with digital matter is after all its more "organic" capacity- to flow, to be independent.[561] As made visible by Hayles, this trait of digital matter may function as a means to iterate digital bodies as bodies of their own and in this manner serve a high-technology discourse.[562] However, when this technology (or cybernetic) discourse moves even further into advanced capitalism, it is ironically also just this capacity that makes things difficult in terms of *control.* For this reason, I will now move on to argue that it is today not possible to talk about how digital bodies become disentangled from human minds without also considering the change of control

[560] Ibid.7
[561] Hayles, K. *How We Became Posthuman,* p. 1-26., Schollin, K. *Digital Rights Management, The New Copyright,* p. 36
[562] Hayles, K. *How We Became Posthuman,* p. 1-26.

mechanism in e.g. contracts, technological barriers, architecture and more...

5.5 Controlling the digital body as contract

The contract function as is well known to most persons in capitalist societies, has traditionally been understood as a text concerning trade of goods or services. Thus, when one agrees to buy e.g. a car, this transaction and the conditions under which this transaction is to occur, is embodied in (and as) a contract (written or oral). As Radin argues, however, in the networked environment,[563] the text regarding how goods or services are traded has become indivisible from the goods or services themselves.[564] She furthermore however also notes that even before digitization, the so-called *economic view of contract* had already obfuscated the idea that contract is a legal concept for establishing a text about an agreement (or indeed establishing the agreement) as opposed to the object being transacted upon. [565]

Radin however argues that what she refers to as "contract as product" becomes specifically strong with regards to the online environment.[566] Subsequently, she argues that information tangibility- or embodification of digital bodies as I refer to it here- is produced not only through an extended scope of intellectual property rights, but also, through contractual claims. [567]

She furthermore attributes the reason why contracts have been utilized to increase such embodification of digital technology to the same kind of viscosity of "the digital" as argued by e.g. both business actors and the piracy movement. Thus, the argument behind the need for adding also a contractual means of control is attributed to the quality of digital objects as more easily reproducible than non-digital objects. For

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563 C.f. 4.2. and 4.3. on how the knowledge-based society is perceived as a network as well as how network-based business models such as *platforms* are advanced as specific constructs to pursue business as well as societal goals in general.
564 Radin, M. J. *Information Tangibility* p. 411
565 Ibid.
566 Ibid.
567 Ibid.

this reason, Radin argues that business actors have increasingly entangled digital technology with different layers such as digital rights management and contracts to produce an increased control over the reproduction of such matter.[568] Through these practices, Radin argues that it becomes even more difficult to separate between intangible objects and the contracts where they are defined.[569]

The aspect that contracts are now more difficult to separate from digital transaction objects was also directly considered in the case C-128/11 *UsedSoft v Oracle*.[570] In the case, one of the reasons for considering a form of so-called *first sale*[571] for digital objects was through the manner that court considered the contract terms as part of the digital object. In these contract terms, certain limitations on the use of the software were stipulated, such as a limitation in number of simultaneous users. When UsedSoft "resold" the copies of software, they paid attention to follow the terms of the original contract between Oracle and its (first) software purchasers. The first purchasers also deleted the software from their computers before transferring it to UsedSoft. The court subsequently argued that the contract terms could be understood as part of the digital object and the fact that UsedSoft had not overridden them, made their business legitimate.[572]

Radin has furthermore also pointed at how contract may be understood to further embody digital technology in the manner that the main contract form in digital settings today, are the so-called *boilerplate contracts*[573] and that these contracts can hardly be understood as contracts

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568 Radin, M.J. *Information Tangibility*. p. 395-418; and e.g. Schollin, K. *Digital Rights Management*.

569 Radin, M.J. *Information Tangibility*, p. 395-418.

570 C-128/11 *UsedSoft v Oracle*

571 This may be generally described as a doctrine that has the purpose to limit the control over goods/services that embody an intellectual property protected work, to the actual representation that carries it. While e.g. a CD is first sold by the legitimate consent by the intellectual property holder, this sale is therefore conceptualized as limiting any further claims from the IPR holder. Thus, the one who buys the CD may freely resale it without any infringement claims from the IPR holder. See e.g. EU Directive (Infosoc) 2001/29/EC art. 28 and 29.

572 C-128/11 *UsedSoft v Oracle,* p. 84.

573 Other similar terms for the general phenomena of non-negotiabble contracts are: adhesion contract, standard contract, take-it-or-leave-it contract, shrinkwrap contract.

at all.[574]Such contracts, which are well known to most people who occupy internet spheres, come in several forms. Generally they can be described as contracts that one enters into by clicking a specific box, or a button with the term "I agree". The option *I do not agree,* if it exists, does not result in a renegotiation of contract terms as one could think.[575]

Such developments are furthermore also embedded in technological design elements for control over digital objects.[576] To illustrate this, just consider how digital objects such as platforms for different forms of entertainment content "cease to function" when one no longer is within the boundaries that the "contract" terms of a product allows. For example, when one leaves the EU region, the Spotify account will possibly cease to play certain songs, or Netflix will air other movies than the ones previously available. Or, recall annoying fights over who, in a family, gets to have access to these precious accounts as both movies and music cease to play when several persons attempt to access the same account simultaneously. These effects may all be understood as a combination of contract terms and technological management of such contracts (and content).

These practices can therefore be understood as just some of the latest developments in how contracts and technology are utilized to *embody* information, or as Radin argues: to make knowledge less into text and more into machine.[577]

Radin furthermore argued already in 2002 that the advent of *machine-made* contracts, which implies that programs are used to create

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[574] Radin, M.J. Boilerplate. *The Fine Print, Vanishing Rights, and the Rule of Law*. e.g. p. xvi.
[575] Ibid. e.g. p. 99-101. Radin, M. J. *Information Tangibility* p. 410- 411 Apart from further enforcing embodification of digital bodies, the contract function may also in some way be put out of human body. In any sense, the terms of contract in this way arguably become part of the goods or services rather than a text about them. According to Radin, this implies that the general concept of agreement under the liberal conceptual idea of contracts is put out of order. For this reason, she argues that these contract forms rather can be understood as a one-sided requirement, akin to property, rather than to contract since the terms are non-negotiable. In this manner, the "contract" as much as the "thing" is what one sells/acquires. This movement of contract as agreement to contract as product then, as pointed out by Radin, implies that the difference between a contract (is it even a contract anymore?) and contract object collapses.
[576] Radin, M. J. *Information Tangibility* p. 410
[577] Radin, M. J. *Information Tangibility*

binding commitment, increasingly hastens the dissolved distinction between text and machine. Such regimes imply that computers at each end of a transaction can be programmed with a set of terms. When two computers meet that have matching deal desires, the computers "automatically" may arrive at a commitment, without any further human intervention. Radin also argued that perhaps the process of integration of text and machine could become even more noticeable in the case of what she refers to as *viral contracting*.[578] This insight might have sounded quite sci-fi back in 2002 but at the stage where we now find ourselves, this can be understood as an early but quite accurate conceptualization of both digital rights management in general as well as so called *blockchain*[579] practices in more specific.

5.6 Controlling the digital body through technological barriers

As noted by Radin, *digital rights management systems*, such as the ones just mentioned with regards to Spotify or Netflix, also appear to contribute independently to embody digital technology. In more detail, digital rights management systems have been described as *technological barriers* or, as *programs* that limit access to, distribution of, and use, of a specific digital object.[580] The legislative protection of digital rights management systems was enacted e.g. through the U.S. Digital Millennium Copyright Act (US DMCA) in 1998. Section 1201 subsequently stipulates an "adequate and

[578] A viral contract or a purported viral contract can according to Radin be understood as a digital product with digital terms integrated into it, as well as a product-plus-terms construction that propagates down a chain of distribution with the intent that the terms produce a binding commitment in relation to whoever comes into possession of this "package". Radin, M. J. *Information Tangibility* p. 414 and Radin, M.J. *Humans, Computers and Binding Committment.* Indiana Law Journal, 75 Ind. L.J. (2000), p. 1125-1162

[579] I will explain the concept of blockchain further below.

[580] According to Schollin, one can argue that digital rights management have both systemic and practical implications. The systemic implications can according to Schollin be regarded as legislation on technology protection measures (idea of what DRM should be) as well as DRM as a theoretical technical framework- a system of potential control. From a practical point of view, DRM can also be understood to put in action as more or less effective systems to regulate the behaviors of millions of users. Schollin, K *Digital Rights Management,* p. 81

effective protection for technological measures used by copyright owners to protect their works" and in the EU similar measurements were carried out through the EC Directive 2001/29/EC *Infosoc Directive.* A technological measure is in the infosoc directive described as:

> "any technology, device or componentthat, in the normal course of its operation, is designed to prevent or restrict acts, in respect of works or other subject-matter, which are not authorised by the rightholder of any copyright or any right related to copyright."[581]

In line with the narrative of increasingly being able to treat digital bodies as independent bodies that needs to be controlled, it is interesting to note how DRM was not at all to hinder the *individual* from watching or listening to a work. Rather, it was framed as a technology that made clear who had the right to e.g. make a copy or download a commercial program to their computer.[582]

DRM technology is itself *also* protected through copyright from being broken down to allow "illegal" behavior with digital bodies protected by copyright (with some exceptions for software). [583] DRM/DRMS can in this way through technological design prevent content from being digitally reproduced, or copied. Also it can function in the manner that it allows transfer but simultaneously deletes the "original" from the transferring party's computer.[584]

As both Radin and e.g. Schollin point out, one could, at the time of their writing, have understood digital rights management as a next-

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[581] Directive 2001/29/EC of The European Parliament And Of The Council of 22 May 2001 on the harmonisation of certain aspects of copyright and related rights in the information society. "The Infosoc Directive" Art. 6, p. 3.

[582] See e.g. Levin, M. *Lärobok i immaterialrätt,* Wolters Kluwer, Stockholm, Sweden. (10th edition) p. 208

[583] Digital rights management systems are however conceptually limited through rules that stipulate that a technical arrangement needs to be effective in order to have legal protection. Also, it was set out that only works with some kind of copyright relevance could be protected. Schollin, K *Digital Rights Management- The New Copyright* 2008. p. 219 Directive 2001/29/EC Art. 6.1, 6.2.

[584] Radin, M. J. *Information Tangibility* p. 414, Schollin, K. *Digital Rights Management- The New Copyright?*

generation copy protection.[585] However, as Radin and many others have pointed out since, DRM may, in spite of the conceptual promises, also be utilized in a manner that goes further than what copyright traditionally allowed.[586] Similar developments to digital rights management, but not necessarily directed to copyright may now also be occurring in relation to the development of *blockchain* technology[587] as will be further discussed below.

5.7 Controlling the digital body through technology, contracts, property...

An even further development of the expansion of digital embodification can be argued to take place in the current emergence of blockchain technologies and so called *smart contracts*. Blockchain technology is generally mostly associated with *Bitcoin* as this is where such technology to this stage has been put most into use.[588] However, in more recent developments, this kind of technology has also been argued to have the capacity to fulfill a specific function for connecting digital and "physical" bodies. As Alex Tapscott and Don Tapscott argue, through blockchain:

> "(....) physical assets can become digital assets. All documentation relating to a particular "thing" can be digitized and carried on in the blockchain including patents, ownership, warranties, inspection certification, provenance, insurance, replacement dates, approvals, et cetera, significantly increasing data availability and integrity, reducing paperwork handling, storage, and loss, and other process improvements related to that documentation."[589]

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585 Ibid.
586 Ibid.
587 See e.g. Tapscott, A., and Tapscott, D. *Blockchain Revolution. How Technology Behind Bitcoin is Changing Money, Business, and the World*, p. 13.
588 Swan, M. *Blockchain: Blueprint for a New Economy*, Sebastopol: O'Reilly Media, Inc. 2015, p. ix. However, Swan points out that the term Bitcoin is often also utilized to describe the entire concept of cryptocurrencies and likens such conceptualization to if PayPal would have called the internet PayPal upon which the PayPal protocol was run.
589 Tapscott, D., and Tapscott, A. *Blockchain Revolution, How the Technology Behind Bitcoin is Changing Money, Business, and the World.* p. 159

Through these technologies then, we may soon see increasing layers of digitalization put on "physical assets" in order to make them traceable and in this manner, partly counter intuitively, *more tangible* than they ever where without digital layers.[590]

Melanie Swan also suggests that blockchain technology in general may be utilized to refer to three different parts of a larger concept. The first part, she suggests, consist of the underlying *blockchain technology*, the second is the *proto*col and the client through which transactions are effected and the third the *crypto* currency itself (the digital money, that is).[591] More simply, Swan also argues that blockchain can be ambiguously described as both a form of blockchain technology *platform* as well as a protocol that runs over the underlying blockchain technology to describe the transfer of assets on the blockchain.[592]

This setup probably sounds familiar to those who have followed the general development of peer-to-peer file sharing.[593] However, what makes blockchain interesting in terms of embodification of digital bodies in relation to property law is that it appears to take digital property to another intensity. This intensification may be identified just in how embodification occurs in the in-between of digital and physical bodies, through several technological layers.

Swan also argues that blockchain can be understood as a fifth disruptive computing paradigm as the economy of the blockchain enables "not merely the movement of money (...) it is the transfer of information."[594] Swan furthermore argues that blockchain could be the experience of a:

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590 Ibid. Also c.f. Herian, R. *Anything but disruptive: blockchain, capital and a case of fourth industrial age enclosure – Part I*, Critical Legal Thinking 18 October, online. *Anything but disruptive: blockchain, capital and a case of fourth industrial age enclosure – Part II* Critical Legal Thinking 19 October, Availible online at www.criticallegalthinking.com.

591 Swan, M. *Blockchain, Blueprint for a New Economy,* p. ix.

592 Ibid. p. 9.

593 See more on peer-to-peer file-sharing in e.g. Schollin, *Digital Rights Management,* p. 110-122.

594 Swan, M. *Blockchain, Blueprint for a New Economy,* p xi.

> "(...) continuously connected, seamless, physical-world, multidevice computing layer, with a blockchain technology overlay for payments – not just basic payments, but micropayments, decentralized exchange, token earning and spending, digital asset invocation and transfer, and *smart contract issuance and execution.*"[595]

Considering such statements, it is not far-fetched to argue that digital bodies stand before an increased expansion, which appears to be controlled through a number of layers, whereas intellectual property rights is just one. Apart from disconnecting, and expanding, digital bodies in the manner suggested by Hayles and Haraway in the beginning of this part,[596] it thus appears as these processes further occurs in a very special way through and beyond intellectual property.

A question that seem to arise from this journey into the embodification of digital bodies through and beyond intellectual property might even be:

> "Do we any longer even know how embodification of digital technology occur when intellectual property, digital rights management, and contract appears to converge?"

To make this apparent convergence between different form of legal conceptual regimes and how they seemingly produce digital embodification in a very expansive way, I therefore suggest the opening up of a counter-narrative. This narrative takes as a staring point that intellectual property has never been about "the intellectual", "knowledge", or "information". In this way, it is argued that such narratives, makes it increasingly possible to think about how property is continuously produced through materialization processes. These materialization processes may furthermore significantly be connected to advanced capitalism, as suggested in posthumanist theory.[597]

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[595] Ibid. p xi. My emphasis.
[596] See chapter four, and Hayles, K. *How We Became Posthuman*, p. 1-26
[597] See above 1.2.1.

5.8 Digital bodies as property

Reading intellectual property though posthumanist theory makes it possible to question the divide between mind and body, and dichotomies connected to this divide: material/immaterial and text/machine. As has been discussed both in this chapter and the previous, this interrogation of what really is the matter for capitalism, may specifically be discussed when read through the force identified in posthumanist theory as *advanced capitalism*.

As discussed in chapter four, when narrating knowledge as having its own materiality, it becomes possible to treat phenomena that previously was considered as part of the mind, and not physical, as property. This capture is arguably a capture that substantially breaks with, or at least continuously rupture, a fundamental divide of which the notion of the modern human, or man, is built upon.

This divide is, as discussed in chapter two, represented in the mainframe of all Western science today, building closely on the *Cartesian split* between mind and body. The same understanding of the mind is also echoed both in relation to *advanced capitalism*,[598] as well as in the conceptual divide between the mind/body enacted through intellectual property law and its continuous divisions between the original and the copy, the idea versus the work and the textual versus the machinic.

One may then also subsequently argue that this divide is furthermore continuously produced by distancing the mind from the body, through the processes of commodification of "knowledge" that may be identified as part of advanced capitalism in chapter four. In this manner, one may argue that the production of property, or rather intellectual property, aided by digital materialization, produces an increased embodification of the mind.

This logic could, as discussed briefly in the last part of chapter four also be understood as a way to grant materiality also to knowledge as well as digital bodies to an increased degree. Such reasoning could be built around an understanding that the narratives and practices highlighted

[598] Ibid.

here are understood to produce different forms of embodifications. In this way, one could argue that what occurs is a production of an increased attention to matter However, what is significantly made visible there is how materiality is conditioned by *advanced capitalism.*[599] Knowledge, as well as digital, embodiment is thus produced to support such logic.

Davies and Naffine furthermore address that intellectual property may be understood as an anamoly in relation to the general liberal property concept.[600] In more concrete, they have for example highlighted this by pointing out in relation to biotechnological patenting. This discussion was exemplified here in relation to the famous example of "hairy-cell leukemia". As Davies and Nafinne as well as Bhandar argue, this case may be utilized to make visible a number of assumptions about the disconnection of the body, and capture of mind as "general resource" which occurs as a rationale under intellectual property. [601] This continuous "disembodification" of private persons through proposing matter as general product of the mind is furthermore also part of what posthumanist theorists identify as advanced capitalism.[602] And in this way, the folding out of matter in the form of knowledge, through treating it as "gene sequences" or "data" is also linked to what in the subsequent chapter will be referred to as an obfuscation of the boundary between persons and things.

The focus on the theories that grant ownership with a basis in the ownership of one's own body (and the fruits of the same) has been to ask whether this also applies to the intellectual labor that intellectual property (supposedly) addresses. Labor in turn is in its most traditional sense perceived as physical work why several theorists have argued that the conceptualization of property in relation to John Locke does not apply to intellectual property. [603]

Radin has also specifically pointed at the difficulty with mind/body dualism in construction of immaterial property. The boundaries between mind and body as well as property and personhood can according to her

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[599] See on advanced capitalism 1.2.1
[600] Davies, M., and Naffine, N. *Are Persons Property?* p. 3.
[601] Ibid. p. 11-12
[602] See chapter one.
[603] C.f. Davies, M., and Naffine, N. *Are Persons Property?* p. 135

be questioned already from the start. As an example, she mentions how Locke struggled with capturing an idea of *intellectual* property works. As implied by the terminology, something that can be described as intellectual is understood to be something *othe*r than something that *is* materialized.[604] Separating between property and personhood of course however implies that also the idea of the material had to be constructed as property before it could be perceived as such.[605]

Already at the stage of considering the fruits of labor, as something a man should be able to own, it might become troublesome *not* to consider *intellectual* property of what may be described as an excess of how human *body* is constructed. The reason for this is then that the conceptual apparatus of legal philosophy as discussed in the previous chapter consider things that are thought of as immaterial and in general, less labor intense and thus less possible to directly side at the understanding of the body within the person concept (as opposed to the property, which then could be derived from it as part of self-ownership).[606]

The simultaneous production of digital bodies as separate from humans and of knowledge as something that is increasingly possible to treat as a product may here be understood to pose exactly the same questions. This logic will furthermore become even more obvious as human and digital bodies again become entangled (or even further disconnected?) in the following part.

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[604] See e.g. Radin, M.J, *Property and Personhood.* 34 Stanford Law Review (1981-1982), p. 957-1015.

[605] See about the narratology of property: Rose, C.M. *Property as Storytelling: Perspectives from Game Theory, Narrative Theory, Feminist Theory,* 2 Yale Journal of Law & Humanities 37 (1990), p. 36-57

[606] See chapter four and five.

PART THREE: ENTANGLEMENT

Pre cybernetic machines (...) were not self-moving, self-designing, autonomous. (...) Late twentieth-century machines have made thoroughly ambiguous the difference between natural and artificial, mind and body, self-developing and externally designed, and many other distinctions that used to apply to organisms and machines. Our machines are disturbingly lively, and we ourselves frighteningly inert.

Haraway, D. *A Cyborg Manifesto* in
Simians, Cyborgs, and Women. p. 152

6 DIGITAL MINDS, HUMAN BODIES

"I'm becoming much more than I was programmed for."[607]

The last chapter ended in an understanding that the conceptualization of *human mind* is increasingly materialized in digital bodies. The previous part thus set out to challenge the notion of the human as a solid entity where mind and body rests assured within firm boundaries. To recapture the main point of the argument placed there: I argued that a flattening out of difference between human mind and body occurs when *knowledge* as well as digital elements are both treated as independent commodities. This chapter then utilizes this insight towards the further question if the embodification of digital bodies also challenges the divide between "the outer" boundaries of the human. Thus it, questions the distinction between the *human* and *nonhuman*- or as more specified here- between persons and things. The conceptualization of persons and things as divided has in Western notions of law functioned as ways to produce legal subjectivity in a very specifc way. As explicitly framed by philosopher Roberto Esposito:

> "no other principle is so deeply rooted in our perception and in our moral conscience as the conviction that we are not things- because things are the opposite of persons."[608]

As Esposito points out, Western societies and thus the ones inhabiting them are not utilized to thinking that one could think persons and things as belonging to the same taxonomy. Thus, one is not used to think persons and things as bodies, but as separate substances. This divide has

[607] Jonze, S. *Her* (2013) Quote: ca 20-25 min into the movie.
[608] Esposito, R. *Persons and Things*, p.1.

furthermore, as pointed out by Esposito, but also e.g. Braidotti, functioned as a conceptual apparatus to produce an idea of human positioning as more political, ethical etc. e.g. under the pressure of humanism.[609]

The same theme of how matter is understood and what constitutes the boundary of the body as pursued in part two is therefore repeated also in this chapter. However, one can say, that whereas the previous part considered the internal determination of a body, we move now more towards the external determination of a body,[610] to question unitary perceptions of bodies as being either human *or* non-human.

This boundary is of course also a (or even *the*) theme discussed continuously within the framework of posthumanist theory.[611] The questioning of how this hierarchy between human and its others is produced therefore has specific prevalence in relation to the dominating understanding of the human. And it is furthermore increasingly relevant how the binary between human and nonhuman is being recreated.

Carey Wolfe e.g. writes in the foreword to a recent anthology connected to law and materiality[612]:

> "Hardly a week goes by in the mass media without new discoveries being announced in *The New York Times*, *National Geographic,* or any number of television programs about the remarkable complexity of the life around us (think of the bracing lessons of global warming and the Anthropocene) and as a phenomenological one (think of everything we have learned about how a wide range of nonhuman creatures are more complex, both biologically and phenomenologically, than we ever imagined)."[613]

The altered boundaries between human and digital bodies in specific have also been much discussed and visibilized through theorists such as

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609 See above 2.2.
610 C.f. Introduction to the body concept in chapter two.
611 See chapter two.
612 Wolfe, C. *"Life" and "the Living," Law and Norm*. in (ed.) Braverman, I. *Animals, Biopolitics, Law: Lively Legalities,*
613 Ibid.

Hayles[614] and Haraway.[615] Such altered boundaries of bodies will here specifically be made visible through the utilization of the *entanglement* tool. As discussed in chapter two, this tool aims at both visualizing convergences between bodies that have previously been thought of as separate. Furthermore, the tool aims visualizing how connections between bodies can be through in a less linear manner.[616] Such aspects will in this chapter be addressed first from theorizing how a shift in capitalism may be identified that supports both non-linearity and hybridization as part of the convergence between human and digital bodies. Second, we will once again return to discourses in innovation theory to make visible how they support such logics of entanglement. This time, the theme will however be how such discourses pursue narratives that may be understood as increasingly treating "products" as "organic" or rather- generative. Third, these discourses will be connected back to the entanglement tool through a development of the notion of power at play in these entanglements.

Following the posthumanist theoretical thread, the understanding of power will here also be developed as regime that makes possible both between commodification as described in part two, as well as more wide regime for shaping and controlling bodies.[617]

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[614] Hayles, K. *How We Became Posthuman,* e.g. p. 290-291.
[615] Haraway, D. *A Cyborg Manifesto* in *Simians Cyborgs and Women. The Reinvention of Nature* p. 150
[616] See above 2.4.2.
[617] See chapter two and e.g. Halberstam, J., and Livingston, I. *Posthuman Bodies* e.g. p. 1-4.

6.1 The entanglement of what?

As has already been discussed in both chapter one and two, in posthumanist theory, the questioning and rearrangement of the boundaries of the *human* and *nonhuman* informs the entire theoretical endeavor. The blurring of these boundaries is furthermore now even an old story as Donna Haraway noted already almost three decades ago.[618] This is evident not the least in the cultural expressions that tell stories about *androids,*[619], *avatars,*[620] and generally *intelligent computers.*[621]

All of these elaborations may be thought of as ways to figure body formations "in-between"[622] of human bodies (and brains, of course) and technological bodies. In e.g. Philip K Dick's well known book, *Do Androids Dream of Electric Sheep?*[623], as well as in Ridley's Scott's version of the book, *Blade Runner*,[624] several bodies appear as to ask questions of what is the human-nonhuman animal-non-animal through e.g. an increased obfuscation of the original and the copy.

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[618]Haraway, D. *A Cyborg Manifesto,* p. 150 in *Simians Cyborgs and Women.*

[619]Dick, Philip K. *Do Androids Dream of Electric Sheep?* New York: Ballantine Books, (1996, [originally published in 1968]).

[620] Cameron, J. *Avatar* (2009) http://www.imdb.com/title/tt0499549/?ref_=fn_al_tt_1

[621] Jonze, S. *Her* (2013) "Theodore is a lonely man in the final stages of his divorce. When he's not working as a letter writer, his down time is spent playing video games and occasionally hanging out with friends. He decides to purchase the new OS1, which is advertised as the world's first artificially intelligent operating system, "It's not just an operating system, it's a consciousness," the ad states. Theodore quickly finds himself drawn in with Samantha, the voice behind his OS1. As they start spending time together they grow closer and closer and eventually find themselves in love. Having fallen in love with his OS, Theodore finds himself dealing with feelings of both great joy and doubt. As an OS, Samantha has powerful intelligence that she uses to help Theodore in ways others hadn't, but how does she help him deal with his inner conflict of being in love with an OS?" *Her,* imdb presentation written by Bob Philpot.: online, accessed 2 April 2017. http://www.imdb.com/title/tt1798709/

[622] C.f. Philippopoulos-Mihalopoulos, A. *Lively Agency: Life and Law in the Anthropocene* in ed. Braverman, I. *Animals, Biopolitics, Law: Lively Legalities,* p. 207

[623] Dick, K, *Do Androids Dream of Electric Sheep?*

[624] Fancher, H. Scott, R. Peoples, D. *Blade Runner* (1982)

Picture from Max Pixel, licensed under Creative Commons: CC0 1.0 Universal (CC0 1.0) Public Domain Dedication[625]

As was briefly introduced in chapter two, Donna Haraway has specifically described the entanglement between humans and their digital technological others in the form of the *cyborg*. This figure is in her mythology specifically described as a cybernetic organism in the form of a hybrid between machine and organism.[626] In her mythology of the cyborg it subsequently functions both as a way as to locate the human in the machine as well as the machine in the human (or "organism" rather[627]).[628] The question in relation to this insight subsequently also becomes whether there exists any external boundary to human and digital bodies respectively. And as Haraway herself answers through the quote that opens this part: if there was ever such a boundary of bodies, it was transcended at least by the time of the late twentieth century.[629]

One way to highlight this change is through the interconnectivity with technological bodies that many persons today live with. No references are needed (in the context where this text is written) to show how human hands today often are "enhanced" or even replaced by

[625] Creative commons license CC0 1.0 Universal (CC0 1.0) Public Domain Dedication https://creativecommons.org/publicdomain/zero/1.0/ Accessed 12 April 2017.
[626] Haraway, D. in *Simians Cyborgs and Women, The Reinvention of Nature* p. 149
[627] Ibid. p. 152
[628] Ibid. p. 153
[629] Ibid. p. 150

lightning bodies known as smartphones. Being a product (or service, or platform, or...)[630], the enhancement may however also be understood intrinsically entangled with the kind of business logic, which produces it (and the entanglement with the human body).[631]

By being able to conceptualize that there is no such rigid divide between bodies, we subsequently also end up with a new reference point of the boundaries of bodies. This shifted boundary may subsequently be attributed partly to how the view of technology, as well as the effect of new technology, has changed from previously. This move was only hinted at in the previous chapter as a form of "knowledge"-based business logic. In this chapter, this logic is made visible with reference to posthumanist theory as a form of logic of hybridization between human and digital bodies as well as a form of network-orientation.

6.2 Entanglement as a business logic: generative capacity

When speaking about the knowledge economy, one of the more persistent ideas appears as the understanding that knowledge as a product grows through "connectedness" and "openness". In the field of innovation, this has been conceptualized through the need for business actors to establish called "generative capacities". These capacities are targeted towards showing how agility is a vital capacity in advanced capitalism as this form of capitalism is generally pictured as embedded with *high-speed*. The importance of generative capacities has also been identified as specifically important with regards to computer-based innovation where development may be pursued continuously. [632]

During the last decades, innovation theories have furthermore become increasingly focused on collaborative innovation and network based business logics as discussed in chapter four. These logics have, as briefly hinted at, furthermore also focused on being able to continuously

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630 C.f. above 4.3.

631 I will make this link more explicit in relation to posthumanist theory and capitalism in the final section of this chapter.

632 C.f. Nakamura, L. *Cybertypes. Race, Ethnicity, and Identity on the Internet,* New York Routledge, 2002.

rearrange production, in order to avoid being stuck in what was called a *commodity trap*. This implies that companies have been urged to shift to a more knowledge-, or innovation-focused perspective. This perspective would then enable companies to shift away from a focus of commodity production.

The idea of commodities as well as *commodity traps* furthermore communicates an understanding that products related to the "industrial society" were (and still is) inherently fixed in terms of matter. In this narrative, this has had the consequence that due to matter- business could only be focused on momentous trade of value from a seller and a purchaser. After the trade of this physical package, the modular potential of the object is closed in the way that the seller cannot alter it any longer. For this reason, it is argued that in order for a generative mind-set to take place, business actors need to shift their understanding of thinking about products as *services* rather than mere products.[633]

Henry Chesbrough therefore argues that there is a connection between the platform concept[634] and so-called *service innovation* as:

> "Innovation in services is a clear and sustainable way to grow a business and fight of the pressure that companies are facing with the commoditization of products. By *transforming products into platforms* that incorporate internal and external innovations and surrounding these platforms with a variety of value-added services, companies can obtain some breathing space from relentless price and cost pressures. Although they must continue to advance their products, the real basis for competition shifts toward *the entire constellation of products and services* available to their customers through their product."[635]

As emphasized in the quote, Chesbrough thus specifically points out that the move towards a more "liquid", or "generative", logic of services

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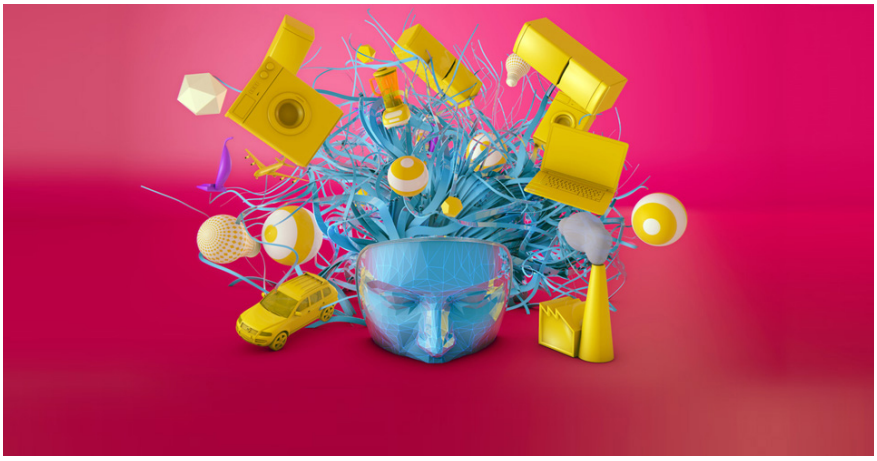
[633] Chesbrough, H. *Open Services Innovation,* s. 1-3.
[634] As discussed above 4.2.
[635] Chesbrough, H. *Open Innovation Services*, s. 35. (My emphasis)

(instead of commodities) goes through a shift in understanding of the output of production.[636]

This is a shift that then occurs through transforming the output (products) into platforms. Such platforms then, imply a shift in logic of output and also then what customers demand from a competition between products (pricing, branding etc. of the individual product) to a competition of an *entire constellation of products and services* through a product.[637] In this manner, the product is disconnected from the understanding that a product is something that shifts hands from business to consumer. This appears in the kind of logic, as a form of platform where both other products produced in-house, as well as external products may be added to a specific product-platform. In this manner, the product becomes narrated in innovation theory as a form of constellation.[638]



"Internet Of Things" by Tumitu Design[639] Licensed under Creative Commons: Attribution-Sharealike 2.0[640]

[636] Ibid. p. 35.
[637] Ibid. p 35.
[638] Ibid. p. 35.
[639] Tumita Design, Flickr account: https://www.flickr.com/photos/tumitu/23012274376, accessed 20 March 2017.
[640] License Creative Commons: Attribution-Sharealike 2.0: https://creativecommons.org/licenses/by-sa/2.0/legalcode accessed 12 April 2017.

The discourse on "generative capacity" now furthermore appears to have entered into an even more intense phase under the emerging blockchain innovation.[641] By considering blockchain technology as "The Ledger of Things, Tapscott and Tapscott argue that:

> "Technologists and science fiction writers have long envisioned a world where a seamless global network of Internet-connected sensors could capture every event, action, and change on earth. With ubiquitous networks, continued advancements of processing capability, and an increasing array of cheap and tiny connected devices, that vision of an "Internet of Things" is edging closer to reality."[642]

An example of such technology may be Chronicled Open Source, who describes themselves as a platform offering:

> "a toolkit that allows any brand, physical IP creator, product authenticator / customizer, or individual to assign a secure digital identity to a physical object by embedding an encrypted microchip and linking it to a blockchain record."[643]

Chronicled Open Source further describes how this kind of use could be enable by drones that are connected to parcels in order to deliver them in a more seamless manner. They further presents this product (service, platform...) as a solution to the problem that parcel delivery is too inefficient as it is depends on human presence in order to run smoothly. Instead of relying on humans to e.g. physically be there to sign off the delivery etc. a drone could be utilized. Or as Chronicled describes it:

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641 For a brief introduction to blockchain technology, see chapter five.
642 Tapscott, D., and Tapscott, A. *Blockchain Revolution, How the Technology Behind Bitcoin is Changing Money, Business, and the World.* p. 152
643 Chronicled: *An Open Registry for the Internet of Everything*, online: http://chronicled.org/index.html accessed 31 March 2017.

> "(...) encrypted microchips are used to give automated delivery drones a unique identity on the blockchain which IoT applications can use to allow or restrict drone access to locations such as a home or warehouse."[644]

They further describe that by having a technology verify a drone containing encrypted information fly up to a connecting node, such as a door or a window with a chip, the chip in that node can verify the signature of the drone. It then may check its identity on the specific blockchain, and confirm the access of the drone and subsequently open the door/window.[645]

In narratives like this, one may subsequently see that the logic of considering things as fixed may be surrendering business logics. Far away feels the way to perceive things as lifeless, as suggested by e.g. Jane Bennett as the dominating understanding of things.[646] Mark Poster similarly also noted some 15 years ago that:

> "with phenomena like a computerized hypertext or a networked real-time community or a helmet-and-glove virtual reality (VR) system, we are confronted by objects whose structure is so indefinite that they must be characterized as virtual, not actual."

These objects, *through their interfaces open to the human* in a manner that the subject is immersed within them and reconstituted *as an element of the object.*[647]

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644 Ibid.
645 Chronicled: *Drone Case Study,* online http://chronicled.org/drone-case-study.html accessed 26 October 2016.
646 Bennet, J. *Vibrant Matter, a Political Ecology of Things*, p. vii.
647 Poster, M. *What's the matter with the internet?* Minnesota:The University of Minnesota Press, 2001, p. 27. My italics.

6.3 Smart *things*

"Fitter happier
more productive
comfortable
not drinking too much
regular exercise at the gym
(3 days a week)"[648]

Many of us humans who inhabit this earth, have now have gotten used to smartphones, and the emergence towards smart homes is coming closer and closer at the same time as the cars become smart, or autonomous. More clear examples of a convergence between human and machine is potentially also the (failed but still) attempt with the so-called Google glass, which attempted a change in human vision through digital technology integrated in glasses.[649] With reference to the critical insights in posthumanist theory on how power shoots through these assemblages, it also becomes possible to think further who really embodies the concept of the smart thing and how the smart thing embodies us (whoever "we" are).

As Haraway notes, the cyborg may be thought (as discussed above[650]) as a figure that produces a transgression of a bodily boundary, both in relation to a "human" and a "thing".[651] The devices that now even speak to us when we want something to be accomplished may be understood as another form of convergence between human and digital bodies. Maybe the most famous example is the *Siri function* in Apple's smart devices. Furthermore, note the manner in which Apple advertises Siri in the manner that closely connects Siri to an idea of what a really

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[648] Radiohead, *Fitter happier*, O.K. Computer.
[649] Newman, J. *Google's 'Project Glass' Teases Augmented Reality Glasses,* PCWorld. 4 April, 2012,
[650] See above 6.
[651] Haraway, D. *A Cyborg Manifesto,* in *Simians Cyborgs and Women, The Reinvention of Nature,* p. 149.

smart (and accommodating) machine could do when stating that: "Siri understands what you say, knows what you mean and even talks back."[652]

Furthermore, one is of course also urged to approach Siri as if it (or rather: she[653]) was a person by talking to her.[654] In a similar manner, Tapscott and Tapscott points out the possibilities with the increasingly intelligent traits of objects by the question (and answer): ""Feeling lonely? You can always talk to your house."[655] Simultaneously, (the supposed to be) humans are fed with reminders to continue move, breath, and sleep accordingly.

For example, RunKeeper, one of the most popular smartphone applications continously repeats its message of the need to work out on a regular basis. It also specifically pushes notifications on times where it has previously been utilized to log one's exercises. Messages that one may receive include:

> "Let's work out! You thought this was the perfect time a while back... remember?"[656]

And,

> "It's that time again – let's get out there for a quick jaunt."[657]

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[652] Apple: *Siri, a function of Apple iOS*; https://www.apple.com/ios/siri/ accessed 4 February 2015.

[653] C.f. Hester, H. *Inhuman Symposium- Helen Hester,* available on Youtube: https://www.youtube.com/watch?v=ZSBefHq7C_o accessed 15 January 2016

[654] "Talk to Siri as you would to a person. Say something like "Tell my wife I'm running late" or "Remind me to call the vet." Siri not only understands what you say, it's smart enough to know what you mean. So when you ask "Any good burger joints around here?" Siri will reply "I found a number of burger restaurants near you." Then you can say "Hmm. How about tacos?" Siri remembers that you just asked about restaurants, so it will look for Mexican restaurants in the neighborhood. And Siri is proactive, so it will question you until it finds what you're looking for." https://www.apple.com/ios/siri/ accessed 4 February 2015.

[655] Tapscott, D., and Tapscott, A. *Blockchain Revolution, How the Technology Behind Bitcoin is Changing Money, Business, and the World*, p. 161.

[656] RunKeeper push notification, accessed 15 November 2016.

[657] Ibid.

If one then ignores such hints, it will enquire whether one is exercising without one's phone and therefore possibly would like to track one's exercisining progress manually instead.[658] Furthermore, of course, RunKeeper also involves the potential for sharing one's exercise in different social networks. This kind of sharing then also involves the extended possibility to tag one's activities with popular hashtags such as #fitspo and #strongisthenewskinny while awaiting confirmation of one's healthy behaviour in the translation of "likes" or in the case of Instagram and Twitter as hearts or in the case of Facebook, as a range of affective emojis.[659]

In relation to this potential of becoming fitter (and potentially happier through e.g. becoming more "liked") by converging one's human body with those of technologies, one may also consider the so-called FitBit. For example the "FitBit Zip" offers the potential to by "A simple, discreet way" to track your day. This then implies the possibility to

> "Turn everyday life into a path to fitness with FitBit Zip®, a simple device that tracks all-day activity like steps taken, distance traveled and calories burned."[660]

The FitBit may also track your sleep, either in a normal setting or put to sensitive mode which enables "(...) extremely detailed sleep reporting (...)". Such detailed account implies the potential where:

> "The sensitive setting will cause your tracker to record nearly all movements as time spent restless or awake. This setting may be

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[658]"Exercising without your phone? Make sure to log it with RunKeeper to make it count."
"Not running right now? We're awesome at tracking just about any cardio activity... and also fairly modest."

[659] Twitter: *Hearts on Twitter,* blogpost, online. accessed 2 April 2017; Darwell, B. *Facebook begins supporting emoji in posts and comments on desktop and mobile*, Online.

[660] Fitbit: *Fitbit webpage* https://www.fitbit.com/se/zip Online: accessed 5 November 2016.

> helpful for users who wake up feeling tired even though their sleep history shows sufficient rest."[661]

In order to fully be able to control one's level of active as well as resting behaviour, one may also utilize the FitBit to track one's breathing.[662] All of these regimes subsequently connects the human and the nonhuman in relation to digital technology closer to each other. Furthermore, if not obvious previously, it becomes increasingly possible to also make the connection between how a shift in commodity logic,[663] as well as in how to perceive of and make use of digital technology, also connects to a shift in how the human is shaped.

6.4 Moving from capitalism *or* anthropocentrism to advanced capitalism as *informatics of domination*

Capitalism was introduced in the previous part as a force concerned with an increased focus on knowledge as a "new" resource for capitalist production. However, as is becoming increasingly clear when considering capitalism in the current stages, "knowledge" capitalism does not merely concern extraction of value from knowledge resources. Rather, such commodification, which aids the separation of digital bodies from the human, may also be understood as form of capitalism that creates *hybrid* life forms.

As mentioned in the introduction to posthumanist theory, the posthuman condition may furthermore be understood to take place through several different *plateaus.*[664] One significant plateau in Braidotti's discussion of the posthuman is the understanding that advanced capitalism is deeply engaged in the production of external boundaries of

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661 Fitbit: *Fitbit help- How do I track my sleep?* Online: https://help.fitbit.com/articles/en_US/Help_article/1314 accessed 5 November 2016.

662 "The Relax feature on your Fitbit Charge 2 provides personalized deep breathing sessions that can help you find moments of calm throughout your day. You can choose between two-minute or five-minute long sessions." Fitbit: *Fitbit help- How do I track my sleep?* accessed 5 November 2016.

663 See above 1.2.1. and 4.

664 See e.g. 2.1.2.

the posthuman body. This implies e.g. that the flattening of hierarchies between *the* human and its others, as a posthuman predicament, may be carried out also through further commands of advanced capitalism as compared to the previous two chapters. More specifically this is the form of advanced capitalism that is commonly discussed under the terminology of *bio-capitalism or bio-power.*[665]

Braidotti argues that the late modern forms of capitalism, comes with a specific interest in capturing *life itself* as a commodity or/and matter of control. Braidotti herself has developed this understanding in relation to the concept of *zoe.*[666] Donna Haraway has developed a significant understanding with regards to such forms of advanced capitalism through the ideas of *"Technoscience"* and *"Informatics of Domination"*. [667]Both of these concepts can be understood as valuable understandings of "biopower" forces that directly affect the intensities of posthuman bodies.[668]

The concept of biopower may furthermore be significantly connected to Foucault's theories on governance in modern society. In accordance with Foucault, governing as biopower may be understood as a plethora of techniques that regulates "Life" itself. The understanding that the West has moved towards a stage of power that can be described as biopower is described by Foucault e.g. as the idea that:

> "Since the classical age, the West has undergone a very profound transformation of (...) mechanisms of power. "Deduction" has tended to be no longer the major form of power but merely one element among others, working to incite, reinforce control,

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[665] See Braidotti, R. *The Posthuman*, p. 58-59, 61. His theories have in recent years been developed by several theorists where, as it is increasingly understood as in the following quote by Hardt and Negri that: "The control of society over individuals is not conducted only through consciousness or ideology, but also in the body and with the body. For capitalist society biopolitics is what is most important, the biological, the somatic, the corporeal."Hardt, M., and Negri, A. *Empire* p. 27.

[666] *Zoe* is an old greek concept which has also been recognized more recently, Giorgio Agamben, *Homo Sacer*,.This may be contrasted to the notion of politically qualified life, *bios politikos,* utilized by Hannah Arendt, *The Human Condition,* e.g. p. 12-17.

[667] Haraway, D., *Simians, Cyborgs, and Women. The Reinvention of Nature*.. p.161-162.

[668] See Braidotti, R. *The Posthuman*, p. 58-59, 61.

> monitor, optimize, and organize the forces under it: a power bent on generating forces, making them grow, and ordering them, rather than one dedicated to impeding them; making them submit, or destroying them."[669]

Braidotti has argued that there is a difference between Foucault's perception of biopower and at least her posthumanist understanding of the same. According to her, this difference implies a more concrete interest in a larger variety of forces. Furthermore, as it is not merely the bodies subjected to power by humans such as "states" that are considered in posthumanist frameworks, a necessary implication is that biopower is considered not only as a governance logic of states within "socially" constructed boundaries but that power always needs to be considered in its global scale (and beyond).[670] This difference can also be exemplified in the manner that Donna Haraway argues that now:

> "We have moved from the bio-power that Foucault exemplified by comparative anatomy to a society based on the governance of molecular *zoe* power of today. We have equally shifted from disciplinary to control societies, from the political economy of the Panopticon to the informatics of domination."[671]

Haraway furthermore discusses Foucault's notion of biopower as practices of administration, therapeutics, and surveillance of bodies that discursively constitute, increase and manage the forces of living organisms. In his writings, Foucault uses these concepts as a way to delineate several nineteenth-century figures such as the hysterical woman and homosexual pervert.[672] This understanding of the dominant regimes may also be understood under the terminology of *Informatics of Domination.*

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669 Foucault, M. *The Foucault Reader, An Introduction to Foucault's Thought,* Rainbow, P. (ed.) New York: 1984 Vintage Books, p. 259
670 Braidotti, R. *The Posthuman,* e.g. p. 63, 89.
671 Ibid. p. 97
672 See e.g. Foucault, M. *Power/Knowledge, Selected Interviews and Other Writings 1972-1977*. Ed. Gordon, C. New York: Vintage Books, 1980, p. 183-193

This kind of logic is furthermore outlined in the following chart included in *Simians, Cyborgs, and Women. The Reinvention of Nature* (1991):

Industrial economics	**Informatics of domination**
Representation	Simulation
Bourgeois novel, realism	Science fiction, postmodernism
Organism	Biotic component
Depth, integrity	Surface, boundary
Heat	Noise
Biology as a clinical practice	Biology as inscription
Physiology	Communcations engineering
Small group	Subsystem
Perfection	Optimization
Eugenics	Population control
Decadence, *Magic Mountain*	Obsolence, *Future Shock*
Hygiene	Stress Management
Microbiology, tuberculosis	Immunology, AIDS
Organic division of labour	Ergonomics/cybernetics of labour
Functional specialization	Modular construction
Reproduction	Replication
Organic sex role specialization	Optimal genetic strategies
Biological determinism	Evolutionary inertia, constraints
Community ecology	Ecosystem
Racial chain of being	Neo-imperialism, United Nations humanism
Scientific management in home/factory	Global factory/Electronic cottage
Family/Market/Factory	Women in Integrated Circuit
Family wage	Comparable worth
Public/private	Cyborg citizenship
Nature/culture	Fields of difference
Co-operation	Communcations enhancement
Freud	Lacan
Sex	Genetics engineering
Labour	Robotics
Mind	Artificial Intelligence
Second World War	Star Wars
White Capitalist Patriarchy	Informatics of Domination

[673]

[673] Entire table taken from Haraway, D., *Simians, Cyborgs, and Women. The Reinvention of Nature.* p. 161-162.

Thus, Haraway argues that information capitalism changes how production as well as *reproduction* is carried out radically. Haraway poses this as a reworking of Marxist theory as she argues that the materialities of capitalist production leads to/continuously reproduce this new condition.[674]

At three instances in the schedule above, Haraway also points at (least) three phenomena of *the informatics of domination,* which we have already started to become acquainted with. These concepts are:

- "surface, boundary" (as opposed to "depth, integrity"),
- "modular construction" (as opposed to "functional specialization") as well as
- "biotic component" (as opposed to "organism").

All these three concepts arguably connect advanced capitalism[675] to the kind of modular logic of networks, which we started to explore already in the previous chapter with regards to commodification of information as part of advanced capitalism. In this manner, Haraway makes visible a very specific form of logic, which governs the obfuscation of boundaries between persons and things. This logic may furthermore be understood to connect specifically to the idea of treating knowledge and digital bodies as separate (as discussed in chapter four) from the human body. Furthermore, this form of capitalism here identifies what could be understood as a new intensity of power (and even a new form of biopower) in the sense that information capitalism is linked to a logic of domination. The consequence of this logic is furthermore that entanglements between bodies may be understood as a form of capitalism that does not only (incessantly) put the boundaries in what

674 Haraway, D. *Simians, Cyborgs, and Women: The Reinvention of Nature*, p. 9

675 I am aware that Haraway summarzes these aspects under the concept of informatics of domination in the schedule rather than advanced capitalism. Considering her general orientation to marxism, I do not find it likely that she does not aim at criticizing advanced capitalism (also and simultaneaously) through this table in genera and informatics of domination in specific. C.f. The links to Marx in Haraway, D. *Simians, Cyborgs, and Women: The Reinvention of Nature*, e.g. p. 9-10, 45

may be commodified into question, but ultimately rearranges (and destroys) the pure idea of *anthropos* himself.[676]

What is important to note, however, is that there are also other ways in which digital materialities themselves also carry on other performative productions of bodies, which are *not* necessarily ruptured through the convergence between persons and things. Specifically, there is a tendency, as, Lisa Nakamura and Danah Boyd have pointed out respectively, to disconnect technology from "human" affects".[677] This idea of internet as disconnected from the human is also advanced by Ella Brians by pointing out that as cyberspace evolved, it was understood as "(...) a place where the user would be free of the material limits of the body, while also exercising an enhanced control over his virtual environment."[678]The connection to the logics of dematerialization of information may subsequently be understood to appear as a theme also in the way that humans are connected to digital bodies. In accordance with the narratives discussed in this chapter through the framing of e.g. Siri, smart objects in general as well as some of the more common applications (such as Runkeeper) also point us in this direction. Simultaneously, the narrative in innovation theory points at ways to increasingly perceive information as "alive". This making "organic" of information strongly touches upon Haraway's understanding of how the informatics of domination is produced as a way to transcend the idea of the "pure" human subject, by a transgression of a logics of domination related to a upheaval of technoscience. [679]

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[676] Cooper, M. *Life as Surplus, Biotechnology & Capitalism in the Neoliberal Era,* p. 3-4.

[677] Nakamura, L. *Cybertypes, Race, Ethnicity, and Identity on the Internet.* e.g. p. 31 and in general, specifically in the chapter *Head-hunting on the internet: identity tourism, avatars and racial passing in textual and graphic chat spaces.;* boyd, danah. *White Flight in Networked Publics? How Race and Class Shaped American Teen Engagement with MySpace and Facebook.* In *Race After the Internet* in eds. Chow-White, P.A. Nakamura, L. New York and Oxon: Routledge, 2012, p. 203--222.

[678] Brians, E. *The 'Virtual' Body and the Strange Persistence of the Flesh: Deleuze, Cyberspace and the Posthuman,* p. 121. (eds.) Guillaume, L., and Hughes, J. *Deleuze and the Body*

[679] C.f. Haraway, D., *Modest_Witness@Second_Millennium,* p. 3-4.

The combination of advanced capitalism oriented towards scientific innovation can, as discussed in the previous chapter, be understood to produce new forms of bodies. These bodies can in turn be understood to involve an increased level of hybridization. In the prolongation, one may even argue, as Haraway, that this implies that the machines are becoming more alive while humans, or organic bodies, are becoming more inert. Arguably, this may be understood as a stage where machines increasingly have traits associated with humans and humans have traits associated with digital bodies.

6.5 Entanglement as power to shape the boundaries between human and digital bodies

This chapter has elaborated how one may both identify an increased obfuscation as well as an increase connection between human and digital bodies, through the concept of entanglement. Such understanding has further developed the understanding that the boundaries of the body cannot be understood as determinate. Compared to chapter four and five, this understanding has here been specifically developed in relation to how human and digital bodies are both perceived in more similar terms. A rupture of a divide between how to perceive human and digital bodies as different from each other may be identified both through several forms of digital "products/services" as well as through narratives in innovation theory.

Furthermore, it has been argued that what governs this development may be made further visible through showing how an *entanglement logic* is produced as part of advanced capitalism. This connection has as discussed been specifically developed by both Braidotti and Haraway. Their focus of how to understand entanglement in this manner furthermore also places advanced capitalism in what may be understood as an *intersectional* understanding of how a body is produced.[680] In this manner, they show that capitalist power cannot be

[680] C.f. above 2.2. and 2.4.1. Also see e.g the contributions on intersectional theory in the stream of "Black Feminism": see e.g. Devon, W. Carbadoa, Kimberlé Williams Chrenshaw, Vickie M. Maysa and Barbara Tomlinsona, *Intersectionality: Mapping the*

understood as the single force that shapes how bodies connect and disconnect. Haraway forcefully also connects this to a concept of considerable domination, which she calls the informatics of domination, as discussed above.

Such logics of domination may subsequently be understood to increasingly shape in more concrete how we understand human and digital bodies. This implies that the processes discussed here cannot be understood as inherently good "connective" and "making-organic" of objects. Rather, they needs to be understood as deeply embedded also in specific regimes of power. This will also be made increasingly visible when this logic of entanglement is encountered in relation to the legal conceptual divide between persons and property.

Movements of a Theory. Du Bois Review: Social Science Research on Race, Vol. 10, Iss. 02 (2013) pp 303-312

7 CONCEPTUALIZING THE HUMAN AS BOUNDARY TOWARDS PROPERTY

"We're not computers, Sebastian, we're physical."[681]

The previous chapter significantly engaged in the way that many current discourses and innovations engage in what may be described as a reconfiguration of the divide between human persons and things. As was discussed, this reconceptualization occurs both in ways of narratological shifts, which increasingly produce digital bodies as "organic", "independent" and not the least "smart". Furthermore, the human and its body in encounter with such things may be understood as increasingly under "control". Thus, human bodies are as described by Haraway argues in line and extension with Foucault's theories- subordinated by biopower. These developments may all be understood as developing a way to think of humans and digital bodies as more similar than previously. Also, they may be understood as increasingly possible to *connect* (yet as *separate* bodies).

As discussed in chapter two, the aim with posthumanist theory is indeed to move towards such understanding where humans and nonhumans are understood in less hierarchical ways. When the differences between the human and the nonhuman are obfuscated as discussed in the previous chapters, this may therefore be understood as a move towards a posthuman way to view the world. Yet, as Braidotti argues: advanced capitalism produces the posthuman in a way, which inflicts a negative form of belonging between bodies.[682]

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[681] Fancher, H. Scott, R. Peoples, D. *Blade Runner* (1982)
[682] Braidotti, R. *The Posthuman,* e.g. p, 65

Just like in the more general conceptual divide between persons and things, the law of property in Western modern times may be understood to circulate the notion of human personhood as a boundary towards property. This boundary was slightly ruptured already in the previous chapter when it was made visible that the divide between body and mind as enacted in intellectual property generally inserts and insecurity of boundary towards property.

Similarly to the way that one may argue that it is difficult to make divides between human and digital bodies in reference to the persons/things divide, I will here argue that this difference is also transgressed in relation to the legal conceptual property-personhood divide. I will subsequently argue that the boundary-work produced in relation to human and digital bodies, also affects how boundaries are thought and reconstructed as an *interface* against property. Considering the role that property has in wielding capitalist power, it may furthermore be argued that this certainly could be understood as a "perverse" form of how the posthuman is produced.

In this chapter, I will show how the outer boundaries of property produces a specific effect in relation to how posthumanist bodies may connect and disconnect. First, this will be done by briefly articulating how one may even speak about "personhood" as a legal conceptual boundary in relation to property. Second, I will link this boundary to several specific examples where one may argue that convergences between human and digital bodies displace this conceptual divide.

In articulating how one may speak about a conceptual boundary between persons and things in property theory, I will pay specific attention to those writings that have made it possible to think in ways where personhood in fact functions as a conceptual boundary towards property. Furthermore, I will lift narratives, which combine this understanding of personhood as a boundary with a critique of which kind of *body* that is preserved under this kind of idea of personhood. In concrete, I have therefore focused on the works of philosopher Roberto Esposito, and legal theorists Margaret Davies, Ngaire Naffine, Margaret Jane Radin, Brenna Bhandar and Sarah Keenan as they all have given

profound and somewhat differing understandings of how to articulate the concept of the divide between property and personhood.

The aim with the chapter from a posthumanist point of view is that it has become increasingly difficult to enact a divide between persons and things to enact a form of (abstract) subjectivity. Thus implies in turn that the boundary towards property articulated from a very specific understanding of the human may be decreasing. In order to make such weakened boundary visible here, I will utilize the concept of entanglement to show how subjectivity may be understood as increasingly connected to property in a convergence between human and digital bodies.

7.1 Personhood as boundary towards property

In the general stream of legal theory on property, property today is generally connected to personhood in a very intrinsic way. As Radin argues, in one dominant philosophical understanding of property, personhood is bound up with the possibility to acquire "objects" external from oneself.[683] This divide between persons and things executed through liberal ideology is also, as argued by Davies and Naffine, bundled up with the central notion of *free* individuals.[684] As Radin puts it, the "heart of liberal property theory" is to affirm a "personal-continuity thesis" where:

> "[p]roperty is necessary to give people "roots", stable surroundings, a context of control over the environment, a context of stable expectations that fosters autonomy and personality. Property is a property of persons; and this understanding is necessary for human freedom."[685]

Yet, as Radin points out, the separation between subject and object in the general stream of property philosophy appears to blur the divide between

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[683] Radin, M.J. *Reinterpreting Property,* Chicago: The University of Chicago Press, 1993*,* p. 195-196.
[684] Davies, M., and Naffine, N. *Are Persons Property?,* p 1.
[685] Radin, M.J. *Reinterpreting Property,* p. 197

subject and object from its outset. This occurs, as she puts it, through the logic that "objects may start out external but they do not remain so; they become constitutive of well-developed personality."[686] This conundrum is specifically visible in relation to the human body. The reason for this is that it may be understood property where it is both understood as something that cannot be derived from the human body, yet, is intrinsically connected to how a human body extends itself to the world. [687] The obfuscation of the property-personhood divide may then furthermore be understood to introduce a trouble for such conception of property. This trouble may therefore be solved by what Radin calls a "disaggregation" idea in relation to property.[688] This implies in brief that some categories of property rights are bound up with persons and subsequently may not be rendered into market objects. And simultaneously, other categories of property rights may not be bound up with persons and subsequently are left to the faith of the market. In this manner one creates a divide between what Radin has called "fungible property" and "personal property."[689]

Radin argues that this boundary between fungible and personal property should be drawn with reference to what she refers to as "human flourishing"[690] She furthermore develops this category to include "human beings' homes, work, food, education, health, bodily integrity, sexuality and procreation."[691] Yet, as we saw in chapter five, it might not always be so easy to see exactly where the boundaries of the human body may be drawn. As was discussed, there may be understood to lie an inherent slippage between what Radin would call fungible and personal property in the case of hairy cell leukemia where a patient claimed rights in his own body as opposed to the potential to treat parts of his genetic expressions as property. In the case, as well as in many other cases in relation to biotechnology, this distinction has generally developed

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[686] Ibid. p. 195
[687] See e.g. *Subversive Property, Law and the Production of Spaces of Belonging*, Oxon/New York: Routledge, 2015, p. 67
[688] Radin, M.J. *Reinterpreting Property,* p. 196-197.
[689] Ibid. p. 197.
[690] Ibid. p. 198.
[691] Ibid. p. 200.

towards a view where what *could* be considered as (parts of) human bodies, are indeed instead treated as "information".[692] Another way in which this boundary towards property through *the human body* is upheld, yet breached, through intellectual property may be attributed to the idea of the *commercial persona.* As Davies and Naffine notes, in Canada as well as in parts of the United States it has been settled that persons have proprietary interests in their 'persona'. An example of how the persona is connected to ownership according to them is furthermore what has been called a 'right of publicity'. Furthermore, they describe that this right has been developed specifically in relation to claims from famous persons.[693] This interest subsists, they argue, whether that persona has been commercially marketed or not. Such right implies e.g. that a person may license or lease their image, in the sense of granting rights of commercial exploitation to another party."[694] Davies and Naffine further point out that "(...) the *rhetoric* of self-ownership features strongly in legal and commercial discourse in this area."[695]

Yet, in alignment with the discourse that treats intellectual property as something intangible, they legitimate this kind of thinking by arguing that due to "the intrinsic separability" between "abstract elements of the self" and the actual person" it is possible to argue that this is not an infringement of the ideal of self-possession or commodification of the person.[696] In her discussion of the case on hairy-cell leukemia[697] Brenna Bhandar specifically makes the case for understanding just how material the immaterial body of the patient in the case was.[698]

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[692]*Moore v Regents of the University of California,* U.S. Supreme Court of California, 51 Cal. 3d 120:271 Cal. Rptr. 146; 793 P.2d 479, (1990) Bhandar, B. *Disassembling Legal Form: Ownership and the Racial Body*, Davies, M., and Naffine, N. *Are Persons Property?*, p. 11-12. . See also Bruncevic, M., and Käll, J. *Modern immaterialrätt* p. 220-221

[693] Davies, M., and Naffine, N. *Are Persons Property?* p. 124,

[694] Ibid. p. 127

[695] Ibid. p. 127

[696] Ibid. p. 127

[697] *Moore v Regents of the University of California.*

[698] Bhandar, B. *Disassembling Legal Form: Ownership and the Racial Body.*

As she expresses this:

> "The body of the self-possessed legal subject in this instance becomes resolutely non-proprietary in relation to itself, while corporations engaged in the business of the life sciences potentially profit enormously from the bodily parts of the legal subject."[699]

This implies as Bhandar points out, and as touched upon here in chapter five, that intellectual property can be understood to introduce a rupture in the idea of self-ownership. She furthermore specifically expresses this in the manner that intellectual property in biotechnologies introduces a disaggregated understanding of the human body- and subsequently the human.[700] Following posthumanist thinking, one could subsequently say that such disaggregated notion of the body is exactly also what makes possible a way to think "the human" as less rigid or "pure". Thus, just like Bhandar, one may argue that these kinds of practices show just how instable the materiality of "the human" is, is what creates a possibility to think further, not only about property, but also how to think the subject as an encounter between different forces and materialities. As is obvious in the hairy-cell leukemia case, there are business interests involved in how the human and its interest in its "own" body should be understood.[701] This kind of understanding of how power shapes the body is also articulated in posthumanist theory as discussed continuously. As suggested in chapter six, such understanding may also be understood as intensified in relation to technologies such as biotechnologies and information technology. As Haraway argues, the possibility to combine capitalism in general with such technologies may be understood to create a stage of "informatics of domination".[702] This in turn, may have lead to a stage where- as Haraway argues- we are all cyborgs. However, e.g. ideas

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[699] Ibid. p. 123-124
[700] Ibid. p. 113.
[701] Ibid. p. 125-127.
[702] See above 6.4.

of information as possible to separate from the human, as a form of "impersonal" human, remain in the ideas of intellectual property. Yet, practices in how human and digital bodies converge as cyborgs may put such ideas into question. I will here exemplify what could be understood as a compromised form of subjectivity if following the line of thinking that personhood depends on a boundary between the human body and the body of things.

7.1.1 A commercial persona or a digital persona?

Intellectual property as a construct as well as the idea of the commercial persona in specific may, as discussed above be understood as ways that rupture the notion of self-ownership from within the property construct. From a posthumanist perspective, this could (as discussed in chapter five) be understood as a tool that may be utilized to separate digital bodies from human bodies in order to treat the former as property. Yet, even if one may consider a separation between a picture of a human, and the actual human, this separation arguably hits an even stronger barrier in relation to how one today also may act as a human *through* digital bodies. In relation to e.g. social media platforms, digital bodies naturally mediate human subjectivity. Thus, it is not "I" in the sense of a "natural person"[703] who will appear as a subject but rather, a representation of me. At least this would be the narrative if one follows the logic of what constitutes "a human body" versus something "immaterial" and thus impersonal suggested in the narrative of self-ownership.[704] Yet, as also pointed out, this understanding is one that not sits naturally with posthumanist theory. To make the complexities in the idea of separating between a "representation" of the human, and "the human" visible, we may e.g. turn to the recent turnings around a media case of exactly the conflict between what could likely be called a commercial persona and subjectivity.

During the fall 2016, the company H&M launched a new campaign "Ladylike". As this campaign was intended for digital media it was

[703] C.f. on this terminology in the EU Data Protection Directive from 1995 (1995/46/EC) which will be more discussed below 7.1.2.
[704] See the previous section.

accompanied by a hashtag: #ladylike. H&M themselves described this campaign in the following manner:

> *""Ladylike ['leɪdɪlʌɪk]: Appropriate for or typical of a well-bred, decorous woman or girl."*

According to H&M, the dictionary definition of the term ladylike is both old and outdated. This month, the brand introduces a new set of words to define what proper ladylike behavior could be; bad-ass, independent, free-willed, entertaining, opinionated and off-beat. To debut the term's alternative meaning, a group of "strong women" – including Lauren Hutton, Jillian Hervey, Hari Nef and Adwoa Aboah were different types of ladylike behavior.[705] The campaign was accompanied by the acquiring of space on instagram accounts belonging to persons, which may be described as having feminist credibility.[706]

One such person was the Swedish artist, Little Jinder. As part of the campaign she therefore posted a picture with an accompanying message on her instagram account[707]. The picture posted by Little Jinder at her instagram account ("littlejinder") portrays Little Jinder in the midst of putting on lipgloss on the run (jacket only put on halfway) in an apparently public bathroom. Little Jinder wears relaxed clothes including a cap in military pattern. The picture is accompanied by a message (in Swedish originally, my translation as follows):

> "All that matters for me is that all ladies will have the possibility to be whoever they want. Especially we who might differ from the classic definition of "female". Here I stand in collaboration with #hm dreaming about getting to talk, write and take the place I feel like

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[705]H&M: *Ladylike,* commcercial campaign, online.

[706] C.f. e.g. Strömqvist, L., and Ferreda-Noli Ringskog, C. *En varg söker sin pod* episode *Pinsamt att finnas* released 14 October 2016.

[707] Jinder, J, @littlejinder instagram post on the Ladylike campaign, https://instagram.com/p/BLI1sX4jz4I/. "Allt som spelar någon roll för mig är att alla ladys ska få vara precis som dom vill. Speciellt vi som kanske avviker från den klassiska definitionen av "kvinnlig". Här står jag i samarbete med #hm och drömmer om att få prata, skriva och ta den platsen jag känner för, utan att ständigt bli definierad som en störig eller provocerande tjej. #ladylike #sponsratinlägg"

taking, without constantly being defined as an annoying or provoking girl. #ladylike #sponsoredpost."

Liv Strömqvist, a well-renowned cartoon creator, political podcaster as well as honorary doctor at Malmö Högskola, instantly criticized the campaign and the way that it utilized the terminology of empowering women.[708] As Strömqvist posted this on her instagram account, the interesting event occurred where Jinder commented on the post, in a regretful manner as to having participated in the campaign. However, as she said, she needed the money.[709]

This case subsequently sheds light on exactly the problematic of separating the commercial persona from human subjectivity when it comes to thinking how digital subjectivity is shaped. This problematic of disconnection between the human, Little Jinder, and her account @littlejinder, is reasonably also the commercial reasoning for H&M to pursue this campaign. Even more complex from a property context is however of course also the insight that the entire possibility for e.g. Little Jinder to function as a person in this sphere is dependent on Instagram, the market actor. Thus, one may argue that this understanding ruptures the dominating logic of self-ownership first by the dependency to mediate oneself through something that is always only "a persona". Second, due this construction of the self is never one of exclusive self-ownership since in order to even have a persona, one has to subordinate

[708]As she put it e.g. on her Instagram account ("leifströmqvist") (in Swedish originally, my translation as follows): "If H&M now are to "redefine" what it implies to be "ladylike" or whatever it is that they are doing, I think these women (picture above text, my comment) are a good example of persons who "redefine the role of women" when they work in unions AGAINST H&M in order to gain rights meanwhile they GIVE THEIR LIVES by standing in factories and sew ugly tank tops we are to buy for 50 Swedish crowns a piece. #ladylike #hm." Jinder, J, Instagram post at #littlejinder, https://instagram.com/p/BLI1sX4jz4I/ In Swedish: " Om h&m nu ska "omdefiniera" vad det är att vara "ladylike" eller vad fan det är de håller på med, tycker dessa kvinnor är ett bra exempel på några som "omdefinierar kvinnorollen" när de arbetar fackligt MOT H&M för att få rättigheter under tiden som de GER SINA LIV åt att stå i fabriker och sy fula linnen vi ska köpa tusen i veckan för 50 spänn styck. #ladylike #hm"

[709] "dom har ju tex köpt min (& andra feministiska profiler som @rnbhermansson) Instagram för att d tydligen e fräckt m feminism nu, så sjukt jobbigt beslut pga går emot ens privata värderingar med hela H&M -men behövde deg så d vann.(...)" Hagström, J. *Little Jinder självkritisk efter H&M-kampanjen*, in Göteborgs Posten, 5 Oct 2016, online.

oneself to a logic of digital property. Due to this, in order to even enter the possibility of having an Instagram persona, one needs to "accept"[710] a contract and behave in accordance with specific "community guidelines".[711]

7.1.2 A natural person as boundary towards property controlled data

Similar to the way that the idea of self-ownership becomes problematic from a property perspective, the logic of "privacy" has been specifically challenged in relation to how human personhood is constructed online. In the EU Data Protection Directive from 1995 (1995/46/EC), it was established that there was a need for "the free movement of personal data". However, this understanding is also combined to an idea that such flow should be balanced against "a high level of protection for the privacy of individuals" (preamble p. 3)." This double purpose was also expressed in article 1., p. 1-2 of the directive.

The further establishment of such right considered of a construction a "data subject". In brief, this construct implied the need to consider *data* (object) or more specifically "personal data" as sometimes entangled to a *natural person*. The Directive furthermore established that "data" would have to be erased if a "data subject" asks for such removal in accordance with article 12 of the Directive.

In the EU court case "The Right to be Forgotten" (The RTBF case); a possibility was spurred to make the Directive applicable to data processed by market actors such as Google. In more detail, the RTBF case initiated in 2010, a Spanish citizen lodged a complaint against a Spanish newspaper with the national Data Protection Agency against Google Spain and Google Inc. His complaint concerned an appearance of what he claimed to be *private information* in the Google search results. He therefore raised a request for Google Spain or Google Inc. to remove the specified *data* related to him so that it no longer were to appear in the search results.

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[710] See above 5.5.
[711] Instagram: *Community Guidelines,* Online.

13 May 2014, the ECJ settled on the Case C-131/12. The result was that the publication of data in the case was assessed to interfere with the persons right to privacy, or, data protection. In short, the result of the reasoning in the case implied that it was argued that the *economic interest* of a search engine was *not* enough to motivate a side-stepping from the right to have personal data removed (para 85 of the ruling). Following upon the court's reasoning that in order to settle on to what extent a person entitled to a *right* to be forgotten, the court argued that a case-by-case assessment has to take place. As expressed in the factsheet on the Right to Be Forgotten ruling,[712] this right subsequently applies where the information is *inaccurate, inadequate, irrelevant, or excessive* in relation to the data processing (para 93 of the ruling).

Following this case, one might say that the idea that "the human" is only enacted through the body, and a "natural" perspective of the body increasingly becomes ruptured. Thus break is furthermore a necessity if one is to think about "the human" in a posthumanist sense. Both the RTBF-case and the Instagram media case subsequently makes visible a way to understand humans and digital bodies as increasingly entangled. As both the Instagram media case, as well as the RTBF case points at, this kind of entanglement is furthermore conditioned by the way that market actors control the convergence between humans and digital bodies, as property. If we believe that personhood and property should be separable, we could therefore argue that we *now* lack a property boundary in between human and digital bodies. This may subsequently be understood diminish human subjectivity since after all, the idea of self-ownership was aimed at constructing a free individual. Yet, it is exactly at this point we also need to remember one of the more profound critiques vested in posthumanist theory of on which norms that human personhood is constructed. Thus, before we mourn or celebrate the potential lack of boundary between human and digital bodies, we need to continuously ask the question, also in relation to property: *when were we ever human?*[713] And subsequently: which effects do the lack of posing this

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[712]European Commision: *Factsheet on the Right to Be Forgotten ruling* (C-131/12)
[713] Braidotti, R. *Inhuman Symposium- Rosi Braidotti.*
Haraway, D *When Species Meet,* p. 1.

question have in relation to thinking property as well as a boundary between persons and property?

7.2 The not so human boundary towards property

The conceptualization of a boundary between property and persons have been criticized by several authors just from the perspective of asking which kind of human this notion of personhood represents.[714] When e.g. Davies and Naffine asks if persons indeed could even be viewed as property,[715] they start out their genealogy of the property concept in the Roman notion of *dominium* where property was believed to be more indivisible in relation to how to perceive personhood versus property.[716] Davies and Naffine also point out that the *dominium* concept as a property right was embedded in a very specific idea of power. This general power included power over all household elements that were deemed essential to the rural economy and included therefore the wife of the *paterfamilias*, other free family members, slaves, animals, and land.[717] Davies and Naffine however argue out that by the early Roman concepts of property a gradual separation between the realm of persons and the realm of fungible things had been initiated resulting in the state that

[714] Keenan, S. *Subversive Property*, p. 67-69.
[715] Davies, M., and Naffine, N. *Are Persons Property?*
[716] They however partly question this understanding by arguing that, at its height, dominium was not an entirely absolute form of property. In line with this understanding, they specifically point at how the concept entailed restrictions both on what, how, and who could own something as it was limited to a Roman owner of a Roman thing acquired by a Roman process Davies and Naffine furthermore point out that the ultimate title of control over things that was vested in the dominium concept was not an absolute property concept. As an example, they point at the fact that an owner of land was restricted both by rights held by others as well as various laws concerning interests of neighbors as well as agriculture. Ibid. p. 27
[717] Davies and Naffine however also point out that the paterfamilias construction could not be understood as a right of ownership in itself, but rather a "general, undifferentiated political, economic, and personal authority." However, as they note, authority over persons and authority over things, were not clearly distinguished since both these aspects were integrated in the early rural economy prevalent at that time. Therefore even if the *paterfamilias* could exercise an effective ownership of the household, it was not conceptually distinguished as a property right. Ibid. p. 28-29

> "[B]y the time the great legal treatises of Gaius and Justinian appeared, the distinction was completely entrenched, and was reflected in the legal distinction between the law of persons and the law of things."[718]

The construction of property in the liberal divide is then possible to perceive as a tool to divide between such more general power over persons and things, as discussed above. Another way to see this is also from a legalistic perspective where this divide may be understood as introducing a distinction between power and positive law.[719]However in spite of such possible boundary still implies an excercis of power as it reproduces a distinction between persons and things. Such boundary subseguently is problematic since some "persons" have continuously not enjoyed the same degree as other persons.

Cheryl Harris made this point in her article on "Whiteness as property".[720] As she makes visible in this article, taking into account the institution of slavery in the US, one may argue that whiteness rather than e.g. a "human" body functioned as a boundary towards being rendered an object.[721] Thus, the idea of "the human" did not function as a boundary towards commodification in relation to black persons. Roberto Esposito also shows how this gradation of humanity is manifested through the construction of slavery. He states this in the manner that the purpose of the thing is rather always one of "instrumental domination" of the person. The purpose of the thing is to *serve* or at least *belong* to persons.[722]

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[718] Ibid. p. 29
[719] C.f. 3.2 on the general idea that one may separate between law as text and law as norms or the inside/outside of law.
[720] Harris, I. C. *Whiteness as property,* Harvard Law Review, (1993), p. 1707-1791
[721] Ibid. p. 1720
[722] Esposito, R. *Persons and Things*, p. 17.

This is furthermore developed into an idea, or even a dispositif[723] of the person where:

> "(...) since a thing is what belongs to a person, then whoever possesses things enjoys the status of personhood and can exert his or her mastery over them."[724]

As he also points out, even if one today considers slavery as abolished, it still appears in other forms of *de facto* slavery today. The idea and concept of the person, Esposito argues, being supposedly something that serves in the forwarding of universal and inalienable rights, is instead something that continuously have been utilized to exclude certain humans from those benefits that other humans may enjoy.[725] Esposito puts this in the terms that to possess a patrimony meant not only to have things but also to exert domination of those who had less or nothing. This, Esposito argues, is even how ownership of things became associated with ownership over people.[726]

With insights like this as a backdrop, Keenan argues that property theory is lacking when it articulates property as something different from both personhood and power.[727] The reason for this is that it continuously folds back into a pure understanding of a human, a human body etc.[728] She also articulates this understanding just within the framework of how whiteness has functioned as a property, in spite of not being (officially) recognized as such in (a positivist understanding of)[729] law. From a posthumanist perspective, such understanding of a lack of homogeneous, and abstract, subject, as a divide and foundation for which to build an

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[723] As noted previously, the idea of *dispositif* can be understood as a "throughly heterogenoeous ensemble consisting of discourses, institutions, architectural forms, regulatory decisions, laws administrative measures, scientific statements, philosophical, moral and philantropic propsitions- in short, the said as much as the unsaid". Barad, K. *Meeting the Universe Halfway,* p. 63

[724] Esposito, R. *Persons and Things*, p. 17.

[725] Ibid. p. 6.

[726] Ibid. p. 25

[727] Keenan, S. *Subversive Property*, e.g. p. 65-91

[728] Ibid. e.g. p. 65-91

[729] C.f. above 3.2

understanding of property is just as problematic. As discussed above, the idea of power which informs how posthumanist theory describe the posthuman condition to have taken place, is largely informed by the understanding of concepts of biopower and/or "informatics of domination".[730] Thus, one cannot think personhood as a stabile category that functions as a boundary towards property. Neither, can one of course think of any legal concept as a boundary towards power since it is, as Braidotti puts it, obvious that we have assigned rights to a human, yet still carry on world-making through power regimes that lets these rights be breached continuously.[731]

One could in fact even argue that the view of personhood as a way to prescribe a boundary towards property is even more problematic from a posthumanist perspective than from e.g. critical race, gender, and Marxist, theories.[732] The reason for this is that as continuously discussed, posthumanist theory is pursued through such critiques of power, as well as with the aim to connect the human increasingly also to other "matter" such as digital materialities.[733]

Instead of thinking about property as something inherent in a thing, or a relationship between either person-thing or person-person, Keenan suggests the idea of property as something that "holds up bodies."[734] She articulates this theory specifically in relation to a notion of space well aligned with posthumanist theory as pursued here.[735] As she puts it, a theory of property as holding-up bodies may be articulated in the manner that one thinks in a more network-oriented understanding. Thus understanding further encompasses a view of how to think "(...) particular arrangements of intersecting forces or things that necessarily extend beyond the subject (...)".[736] The idea of "holding up" bodies is furthermore articulated as a means to understand what "dynamic, heterogeneous space is *doing* when a subject is embedded in it. In brief,

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730 See above 6.2.
731 See Braidotti, R. *The Posthuman,* p. 1, and above 2.2.
732 All theories that Keenan builds upon. See Keenan, S. *Subversive Property*.
733 See above e.g. 1.1.
734 Ibid. e.g. p. 71-72
735 C.f. on the affiliations between this project and spatial theory above 1.6.3. c.f. Keenan, S. *Subversive Property*, e.g. p. 72
736 Ibid. p. 72.

she argues that this may be articulated as an understanding of property where "(...) relations of belonging are held up when wider social processes, structures and networks give them force."[737] As an example she argues that heterosexual relations may be understood as a type of belonging (and thus, property) since heterosexual relations tend to be held up by space in a number of ways. This includes e.g. "legal" institutions such as marriage but also through social validation, which includes as Keenan puts it:

> "(...) accepting, supporting and celebrating couples who hold hands or kiss in public, through positive media representation, through the availability of appropriate sex education and safe sex materials, etc."[738]

Keenan articulates this understanding as a connection between bodies and space. However, her focus is also to connect the production of bodies and property to intersecting power regimes. This theoretical aims subsequently makes the theory easy to translate into the notion of entanglement articulated here through posthumanist theory. As discussed in chapter three, the idea of advocating the notion of entanglement here is to specifically put into question how the boundaries between the human and nonhuman are constructed. This concept is, as discussed, furthermore supportive of thinking the construction of entanglement between e.g. human and nonhuman bodies through ideas of how power constructs these boundaries.[739] Where Keenan articulates a relation between a body and space, posthumanist theory in the line of thinking articulated here, is however more inclined to think this as a relation between bodies.[740] Thus, instead of thinking how bodies are being held up by a specific production of space[741], Keenan's perspective of property could in a posthumanist vein be theorized in the manner that *bodies* hold up other *bodies*.

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[737] Ibid. p. 72.
[738] Ibid. p. 73
[739] See above 2.4.2.
[740] See above 2.4.2.
[741] Implicit hint to Lefebvre, H. *The production of space.*

One specific argument which Keenan grants to this theory is furthermore, as briefly mentioned, that it may reach further in articulating how property is not only (if at all) what a legal conceptual perspective articulates as property. As we might already suspect from the articulation of intellectual property in relation to digital bodies in chapter five, such development of property theory could have specific truck when legal concepts do not align even with e.g. business interests. As we saw through the articulation of digital bodies under intellectual property, instead of e.g. reshaping the entire understanding of how intellectual property can be understood, legal constructions are instead patched together to produce a desired (market) effect. [742] Furthermore, as we have seen in chapter four and six, business logics are designed beyond concepts concerning "products", "services", and "firms". Instead, the narratives focus on "intellectual capital", "openness", "platform-based business models", "smart things" etc. This shift in logic makes it inherently difficult to think of property control as something that is an easily definable relationship between a person and a thing, or even between persons. What is left for legal theory is then to e.g. argue, as Radin does with browsewrap, that this is no longer a contract but rather property since it does not cohere with the conceptual development of contracts. Furthermore, the only defense to e.g. treating knowledge as a commodity remains to argue how it is "immaterial" [743] or to treat property as "personal" and therefore should not be property. However, as Keenan and e.g. Harris understand property- property always also included ideas about "immateriality". Thus, whiteness and heterosexuality, as an "idea" has very material effects of how property is utilized as something that holds up bodies.

I will here further articulate this understanding of property from the specific purpose of this thesis- to show how such more wide idea of control also may be articulated within an understanding of how human and digital bodies converge. Next, I will subsequently articulate the notion of property as a "holding up" of bodies- or in posthumanist terms- an entanglement between bodies and their production of power in

[742] See chapter five.
[743] See e.g. Boyle, J. *An Environmentalism for the Net.*

relation to such bodies. The first example will focus on the idea that cyberspace quite early in legal theory was articulated in terms of how control could not be constructed through general ideas of property. Instead it was suggested that one should think more in terms of how to establish a form of architectural control. I will show how this understanding implies a general understanding of how digital bodies may hold up other (digital and non-digital) bodies as a means of control. This theory of how to construct digital space through a more architectural understanding is very connected to an understanding of "code" as a means to design space. I will therefore complement this understanding through the posthumanist effort to show how entanglement between bodies also depends on other kinds of power. This understanding will furthermore be utilized to show how seemingly neutral concept articulated withing "digital platforms" affects which entanglements between human and digital bodies that are possible. Following e.g. Keenan and Harris, I subsequently argue that such practices may be understood as a production of property.

7.2.1 Digital bodies holding up other bodies through architectural design

A very noteworthy connection between human and digital bodies may of course be pictured trough the body generally described as the internet. The idea to think the internet as a form of network, or an entanglement, is as Jonathan Zittrain argues already from its beginning in 1969, embedded in of an idea of functioning as a means for "(...) subsuming heterogeneous networks while allowing those networks to function independently." Zittrain further argues that this implies that internet was from the beginning both a set of building blocks as well as a "glue" holding blocks together.[744]

As Zittrain furthermore points out, this structured openness of the bodies that become entangled as networks furthermore were constructed in a way so that they could be open to:

[744] Zittrain, J. *The Generative Internet,* p. 1975

> "(...) any sort of device: any computer or other information processor could be part of the new network so long as it was properly interfaced, an exercise requiring minimal technical effort."[745]

Legal researchers such as Jonathan Zittrain and Lawrence Lessig have furthermore pointed out that there is a risk in controlling internet architecture in ways, which makes them less "generative"- Subsequently technological development, could be harmed.[746] This kind of reasoning where openness is linked to the flow of information is something that we now have become well acquainted with.[747] One could possibly even say that Lessig and Zittrain foreclosed the way that internet may be sealed off as "platforms", in the manner discussed in chapter five.[748]

As discussed above, and as I have discussed elsewhere,[749] this may be visibilized in the manner that "platforms" such as Android, iOS and Facebook construct their business models through different levels of openness.[750] An example of how such construction occurs is through so-called *Software Development Kits*. These kits include a number of software packaged in a way that ascertains communication between different kinds of software and system files.[751] A similar design tool which contributes to a harmonized architecture which platform controllers may utilize and make available are the so-called Application Programming Interfaces, APIs.[752] More ways of producing control over architectures through code includes even further processes to produce interoperability between digital objects held by platform controllers and digital objects held by

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[745] Ibid. p. 1976
[746] C.f. Tapscott, A., and Tapscott, D. *Blockchain Revolution. How Technology Behind Bitcoin is Changing Money, Business, and the World* , p. 13.
[747] See above 4.2. and e.g. above 7.1.2.
[748] C.f. Tapscott, A., and Tapscott, D. *Blockchain Revolution. How Technology Behind Bitcoin is Changing Money, Business, and the World,* p. 13.
[749] See chapter four and Käll, J. *Virtuell tjänsteinnovation?,* p. 137
[750] C.f. Tapscott, A., and Tapscott, D. *Blockchain Revolution. How Technology Behind Bitcoin is Changing Money, Business, and the World.* p. 13.
[751] Käll, J. *Virtuell tjänsteinnovation?* p. 138
[752] Ibid.

external developers.[753] As an example, Facebook stipulates a right to assure interoperability between digital objects through a transfer if rights from the developer to Facebook in order to be able to pursue the changes necessary to produce interoperability.[754]

These examples may be understood to sustain the idea the construction of architecture functions as a very specific means of control in relation to cyberspace today. In this way, one may argue that code may be utilized in a manner that produces a form of control, which one generally does not have over physical "spaces". Furthermore, single, large, multinational, information and communication technology companies mainly control these architectures.[755] Both Zittrain and Lessig have subsequently also argued that the form of control pursued through code needs to be limited.[756] Neither Zittrain nor Lessig however puts this understanding in the terminology of property. Instead (and however), Lessig compares the code, which makes up "cyberspace" to code that makes up societies in general, as different forms of regulations. Yet, this understanding of regulation remains solely in a very "textual"/positivist understanding of law.[757]

Furthermore, this understanding remains fairly strictly within an understanding of code as disconnected from power. Of course, when one argues that code is law or that architectural design may destroy openness, an understanding of power is at least implicitly articulated. Yet, at best, this understanding leads to articulating the need for either free or openness in the design of code. Thinking property as holding up bodies therefore implies that the materiality of code is recognized in a deeper

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[753] Ibid.

[754] See Käll, J. *Virtuell tjänsteinnovation?* p. 138

[755] See Ibid. p. 183-184

[756] C.f. Tapscott, A., and Tapscott, D. *Blockchain Revolution. How Technology Behind Bitcoin is Changing Money, Business, and the World,* p. 13.

[757] Lessig, L. *Code and Other Laws of Cyberspace.* P. 28 For example, he discusses that online gambling could be adapted to different regulations imposed by different states (both nation-states and US states) just through the inclusion of specific certification technologies. This rupturing of the larger digital space, he refers to as "zoning". Also, already in 1999, he argued that such practices would become increasingly relevant as more commercial interests entered the internet and states became dependent on each other for imposing regulations on companies to follow specific laws in their different territories.

sense. Or, if more specific, that some practices where code is closed off from its possibilities to form networks are cut off. The example shows that a way to perceive of property as a something that holds up bodies makes possible a thinking, where e.g. architectural control over cyberspace is understood as a form of property. This kind of holding up may be understood to occur, as a specific form of design. By linking the ability to design cyberspace to specific business logics as well as specific market actors, one may furthermore conclude how bodies are held up. In coherence with posthumanist theory, such development may be visibilized as a form of power vested in actors that control information as property.[758]

The potential to think property as a means to hold up bodies however also opens up for an even more intersectional understanding of power.[759] This implies that, when thinking about the construction of digital architecture as a potential form of property, we may also connect this to the understanding of power suggested by posthumanist theorists. I will therefore proceed to make power even more visible in relation to how human and digital bodies converge in "communities" online.

7.2.2 Just a "real name" holding up "digital" bodies

The idea of a separation between a person and a thing is, as discussed above, particularly interestingly articulated in relation to the idea of a "commercial persona". As discussed above, one may argue that this kind of separation is difficult to uphold in digital spheres since a "human" often acts through some kind of "persona". It was furthermore argued that a posthumanist perspective of entanglement is specifically useful for questioning such separation. An example, which makes this difficulty even more visible, is the case, which we will now encounter. This case concerns the problems that a group of individuals encountered when attempting to connect to what is currently the world's largest internet community, Facebook. [760] Through this example, the notion of entanglement will be utilized to show how a way to think beyond the

[758] See above 6.4.
[759] See above and Keenan, S. *Subversive Property,* e.g. p. 71-72
[760]Facebook: *Community page* www.facebook.com

"human" as a "pure", "physical" (or however one frames the idea of the human) being in order to articulate forms of subjectivity. Thus, in line with posthumanist theory, it further questions the dominating idea that persons and things are possible to separate. Furthermore, it interrogates the idea of property as something that holds up bodies. Here, this perspective is articulated also in relation to other forms of power compared to the market power made visible e.g. in relation to coded architectures. In more concrete, the form of power discussed here will be related to the ideas of gender. Gender is furthermore specifically identified as a power regime that underpins the construction of the human, in posthumanist theory.[761]

The context of this case is to start with, that Facebook employs certain community rules. One requirement for joining their community, stipulates that one need to utilize one's real name in order to join the community. This "contractual" [762] requirement recently came under question in a media case when it became apparent how Facebook required persons working as drag queens to utilize their real names and not their drag queen names for their Facebook accounts. Facebook required that if these individuals were not willing to provide such identification, Facebook would have to cancel their "accounts". This also lead to Facebook issuing a number of warnings to some of the persons identifying as professional drag queens, and in some cases efficiently shut down their Facebook accounts.[763]

As an alternative to using their *real names* on Facebook, Facebook directed them to the alternative of using the construction *Facebook Pages* as a means for pursuing communication on the Facebook platform. The drag queens, however, refused such pursuits as they identified risks (of threats) with utilizing their so-called real names on the Facebook platform. They also argued that the Facebook Pages-function was not

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[761] See above 2.2.1.

[762] C.f. above 5.5.

[763] See e.g. Buhr, S. Techcrunch, *Facebook Won't Budge On Letting Drag Queens Keep Their Names,* 18 September, 2014. Online, and Seals, G. *Facebook is demanding drag queens start using their legal names,* Daily Dot, 11 Sep., 2014. Online.

enough as this is a function for *artists* whereas they identified themselves as *persons* with their drag queen names.[764]

As a response to the debate following upon these actions, Facebook continuously claimed that the reason for requiring legal names was to keep the community "safe". However, as was pointed out in a petition based on this cause, persons defining themselves by assuming new names may do this just in order to keep safe and protect themselves from actual harassment stemming from their choice of personhood.[765] As an example of such group, apart from drag queens, one may specifically note the groups of persons that identify themselves outside the gender binary with difficulties to receive recognition for the names they identify themselves with and thus consider as real.

For example, persons identifying themselves as trans persons may be in a transitionary phase where they no longer utilize the name that was registered as theirs at birth, but where this name is still their registered name. Naming such persons by that name and even forcing such persons to pursue the use of such names have been pointed out as an act of violence.[766] Even if one may direct drag queens to fan pages, one therefore still faces the actual harm of forcing people that are not using their legal names due to trans-identification, to use those names in order to be part of the Facebook *community* when property converges with personhood through digital space.

Also, such direction of the persons towards Facebook Pages arguably also implies that subjectivity is limited to a function that rather is aimed at *objectification*. The reason for this then is that, as mentioned, the function of Pages is aimed at a form of commercial persona, which as we saw above, is generally considered as not-persons but something "abstract" possible to treat differently than the idea of the person. In the

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[764] Ibid.

[765] See e.g. Glaad (LGBT organization) *Glaad Media Reference Guide- Transgender,* online. About transition and name change and on the importance to not use dead-names, see e.g. Posey, R. *How To Write About Transgender People, The media doesn't have to get our stories so very wrong,* 24 Jan., 2014 Buzzfeed, online. The Facebook platform agreement also contains a clause specifically targeting safety. See Facebook: *Legal Terms*: 3. Safety

[766] See on *deadnaming*, e.g.: Ramirez Talusan, M. *What 'deadnaming' means, and why you shouldn't do it to Caitlyn Jenner,* Fusion, 6 April, 2015, online.

end in this case, the conflict ended with Facebook voluntarily changing its policy.[767] However, the general policy is still sustained and in the hands of Facebook to control.[768]

Thus, to return to the aim with discussing this case, it is obvious that it is very difficult to articulate a limit to power over entanglements such as this one, through a notion of property versus personhood. Just like in the case of commercial messages from persons on e.g. Instagram, subjectivity is dependent on a market actor (and in both these cases, this actor is Facebook inc.). What this case however also makes visible is that the kind of power over subjectivity made visible through the Instagram case, may here also be connected to the production of other forms of power. These powers include e.g. the way that *the human* is perceived in the dominating understanding, through a normative form of gender.[769] Within such understanding, gender is assigned on a binary scale at birth. Furthermore, assigning gender generally implies to name a child in accordance with the gender binary.[770]

The perception of posthumanist theory is furthermore that when moving towards a turning posthuman through e.g. digital technology, the kind of power that gendering inhabits, does not disappear.[771] The real-name case arguably highlights this point very well as the requirement of a "real" (human) "name" is required in order to have a form of subjectivity. This name may furthermore only be produced if one in fact hold a name assigned to one at birth (or legally corrected after birth, in those jurisdictions where this is possible).

In relation to these insights, it is specifically valuable to also point at how more posthumanist understandings of entanglements between

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[767] Holpuch, A. *Facebook adjusts controversial 'real name' policy in wake of criticism,* 15 December 2015, The Guardian, online.

[768] Facebook: *What names are allowed on Facebook? https://www.facebook.com/help/112146705538576?helpref=faq_content* accessed 1 April 2017.

[769] See above 2.2.1.

[770] Donna Haraway has pursued a specifically highlighting deconstruction of the gender binary in the chapter: *Gender for a Marxist Dictionary* in *Cyborgs, Simians, and Women. The Reinvention of Nature.* The way that she produces gender as a form of "kin" to follow a more intersectional understanding of gender furthermore runs smoothly into her theorization of the chthulucene in *Staying with the Trouble,* e.g. p. 51-57.

[771] See e.g. above 6.4.

human and nonhuman bodies have been articulated. In more concrete, e.g. Lisa Nakamura and danah boyd have pointed out respectively, there is a tendency to disconnect technology from "human" affects".[772] This idea of internet as disconnected from the human is also advanced by Ella Brians by pointing out that as cyberspace evolved, it was understood as

> "(...) a place where the user would be free of the material limits of the body, while also exercising an enhanced control over his virtual environment."[773]

As they note, a belief is continuously produced that digital objects cannot be performative or "political" in the manner that humans (well...) are understood to be. However, as both Nakamura and boyd have shown, digital materializations are replete with racist and sexist affects.[774] danah boyd furthermore has argued in favor of similar understandings of the racialization of digital spaces through e.g. a study of why persons left the then popular community, MySpace, for Facebook.[775]

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[772] Nakamura, L. *Cybertypes, Race, Ethnicity, and Identity on the Internet.* e.g. p. 31 and in general, specifically in the chapter *Head-hunting on the internet: identity tourism, avatars and racial passing in textual and graphic chat spaces.;* boyd, danah. *White Flight in Networked Publics? How Race and Class Shaped American Teen Engagement with MySpace and Facebook,* pp. 203-222.

[773] Brians, E. *The 'Virtual' Body and the Strange Persistance of the Flesh: Deleuze, Cyberspace and the Posthuman,* p. 121. Ed. Guillaume, L., and Hughes, J. *Deleuze and the Body*

[774] Nakamura, L. *Cybertypes, Race, Ethnicity, and Identity on the Internet.* e.g. p. 31 and in general, specifically in the chapter *Head-hunting on the internet: identity tourism, avatars and racial passing in textual and graphic chat spaces.*

[775] The study was pursued as a comparison to the main community for young people in the US, before Facebook: MySpace. Through interviews, the author managed to show that several elements of Facebook attach to a white, middle-class, gaze. MySpace on the other hand was understood to inhabit characteristics which appealed to more racialized users. More specifically, users argued as reasons for joining Facebook instead of MySpace that the Facebook platform was "cleaner". Also, the Facebook platform was argued as better as it contained connections to older persons already in college and university. MySpace was also perceived as a more dangerous and non-open page by parents. On Facebook, the function of limiting the visibility of the profile was deemed by parents to create a safer environment. Race was not mentioned as an outright reason for leaving, however. Reasons for staying included racified discourse such as that one wanted the possibility to "bling" one's own page. boyd, danah. *White Flight in Networked Publics? How Race and Class Shaped American Teen Engagement with MySpace and Facebook.*

Through such theory, it could be possible to increasingly question how control is exercised in a way which is harmful for "the human" in specific entanglements between human and digital bodies. However, this understanding would be difficult to articulate within an understanding of property that rests upon a divide between persons and things. This becomes obvious, as discussed above, specifically in relation to how subjectivity is continuously mediated through a "thing" such as a "digital platform". Furthermore, one does not as e.g. Keenan points out; generally treat e.g. race or gender practices as a form of property.[776] This implies that the dominating understandings of property may be understood as incapable of recognize the view of the posthuman as an entangled being pursued in posthumanist theory.[777]

7.3 Converging human and digital bodies: holding up posthuman bodies as property

Posthumanist theory significantly focus on how to think that bodies are connected and disconnected in ways that are more refined than what binary perceptions related to "the human" implies. This implies that one both puts into question the outer boundary of the human body, as well as in more general, that this boundary is ever a rigid one. Following the aim in the more critical posthumanist stream furthermore implies to think of ways to articulate a fluid perception of the connection between bodies in a sustainable way.[778] This implies e.g. to identify how power is involved in shaping and reshaping the boundary of posthuman bodies.

In the dominant conceptualization of property, as we have seen here, such boundary is generally shaped with "the human" or "the person" in mind. While continuously slippery, which not the least the construction of intellectual property shows, this idea has continuously been iterated in property theory.[779] The incapability of such legal

[776] See above, and Keenan, S. *Subversive Property,* p. 69-70
[777] See above 2.4.2.
[778] See above 2.4.3.
[779] See e.g. Radin, M.J. *Reinterpreting Property,* e.g. p. 35 Davies, M., and Naffine, N. *Are Persons Property?* e.g. p. 181-184.

conceptual understanding of property may however be understood as a twofold failure from a posthumanist perspective.

First, a property theory that divides persons from things is incapable of understanding the nuances of materiality that posthumanist theory makes visible between human and nonhuman bodies. In posthumanist theory, such perception implies e.g. that it is not possible to limit the understanding of a subject to someone who is in a physical/human body.[780] In this chapter, this view has been articulating how subjectivity online is always entangled also with things. Such view of subjectivity causes problems as seen in the Instagram case, in relation to separating between e.g. a "persona" as something possible to separate from a person in the form of e.g. an information object. As discussed, this view of separation between persons and property is also repeated in the related area of how "online privacy" is articulated through a separation between a "natural person" and "data". From a posthumanist perspective, it may be increasingly made visible that what is concerned in these cases are neither "natural persons", "data", nor "personas", but rather entanglements between humans and digital bodies, that is at stake. This leads towards a posthuman understanding of the human where we can, in compliance with Donna Haraway, argue that we have a possibility to think these entanglements as different forms of cyborgs. In line with the affirmative manner pursued by posthumanist theory, we could subsequently celebrate this move and ask ourselves Haraway's question: why should our bodies end at the skin?[781]

In accordance with posthumanist theory, however, such entangled notion of e.g. human and digital bodies continuously needs to be embedded in understandings of how power shapes the connection and disconnections between bodies.[782] Such articulation of power has in liberal property theory however generally been produced as part of the idea of humans as separate from things. Subjectivity has in this manner also been connected just as a means for thinking how humans may

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[780] C.f. above 2.4.1.
[781] Haraway, D. *A Cyborg Manifesto,* in *Simians, Cyborgs, and Women. The Reinvention of Nature* p. 178
[782] C.f. chapter six and 2.4.2.

control property as a way to raise above things.[783] This in turn implies, as Keenan argues, a lack of sensitivity in property theory for how property functions as a means for control in much more dynamic ways. As she suggests, a more nuanced way of thinking about how property sustains and produces power is in the form of thinking property as a means of "holding up bodies". [784] This in turn makes it difficult to reproduce the divide between persons and things in property from a posthumanist perspective. Subsequently, a boundary against property, which in the terminology of Radin may be construct to enable "human flourishing",[785] falls short. The manner that Keenan articulates property avoids such binary perception of property. Furthermore, it also moves beyond a thinking of property as a legal conceptual tool disconnected from power. Such understanding also aligns well with how posthumanist theory is placed in relation to legal theory in general here.[786]

In this chapter, the potential to think property as a way to hold up bodies has been specifically developed in line with posthumanist theory. In more concrete, this development has made possible a way to think property first in the manner that cyberspace is controlled through code or architectural design. Legal theory has for a long time produced ways to think about such types of design as "law". Yet, these understandings have not been as intrinsically linked to how digital and human bodies, may be understood as entangled also with other forms of power, in the manner pursued in posthumanist theory. Aligning these theories with a notion of property as something that holds up bodies and posthumanist understandings of entanglement, however arguably pushes this understanding further.

Second, this understanding was used to make visible how subjectivity in digital communities relates to gender norms. As discussed, such norms are generally perceived as something external both to property and to digital bodies. By thinking of property as something that holds up bodies, it however becomes possible to think a wider array of

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[783] See above and e.g. Radin, M.J. *Reinterpreting Property,* e.g. p. 1-2, p. 35-36.
[784] C.f. Philippopoulos-Mihalopoulos, A. *Spatial Justice*, p. 62
[785] See Radin, M.J. *Reinterpreting Property*, p. 2-3,
[786] See chapter three.

control practices as being *internal* to property. This in turn, also implies that the power regimes criticized in posthumanist theory, as a form of *informatics of domination* may also be made visible just as a form of law. Such conceptualization furthermore increasingly makes possible a way to think critically about how entanglements are pursued as control from the perspective of legal theory.

PART FOUR: ETHICS

We are becoming posthuman ethical subjects in our multiple capacities for relations of all sorts and modes of communication by codes that transcend the linguistic sign by exceeding it in many directions. At this particular point in our collective history, we simply do not know what our enfleshed selves, minds and bodies as one, can actually do.

Braidotti, R. *The Posthuman,* p. 190.

8 A SOCIETY OF THOUGHT

"Think we must; we must think"[787]

The human as a thinking being was declared dead long before the entrance of what is often called the knowledge society. Yet, if not everyone would agree to the analysis of this death when Hannah Arendt made for such case,[788] this conclusion may at least sit easier today. As several examples in this thesis points at, our world is today shot through with an understanding that thinking is no longer an exclusive capability of humans. This insight is now also considerably met with both fears and hopes about artificial intelligence. Fears include e.g. that robots soon will take over "our" jobs.[789] Another aspect of technological intelligence that increasingly raises fears is the process that is connected to "algorithms". The logic of control is subsequently named "algorithmic governance".[790] Another intensification of governance connected to such control is pursued under the idea of Big Data.[791] Such algorithms furthermore create "filter bubbles" so that we now have to endure fascism and racism.[792] Furthermore, they support "fake news"- as well as the removal of "real news".[793]

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[787] Haraway, D. *Staying with the Trouble*, p. 40

[788] See e.g. Arendt, H. *The Human Condition,* p. 320-325.

[789] See e.g. McNeal, Marguerite, *Rise of the Machines: The Future has Lots of Robots, Few Jobs for Humans,* in Wired, April 2015, Online.

[790] ICON-S, ICON-S Conference Program, ICON-S 2016, Berlin, Germany, Stream Description: *Algorithmic Government*

[791] C.f. Kitchin, R. *Big Data, new epistemologies and paradigm shifts* in Big Data & Society April-June 2014

[792] See e.g. El-Bermawy, M. M. *Your Filter Bubble is Destroying Democracy,* Wired, 11 November, online.

[793] C.f. Boyd, D. *Google and Facebook Can't Just Make Fake News Disappear, Fake news is too big and messy to solve with algorithms or editors—because the problem is….us.* Backchannel, 27 March 2017, online.

The hopes include visions about increased capabilities for humans to gain *superintelligence* from what could be framed as digital-neurological technology, or in the words of Elon Musk "neural lace". In more detail such neural lace is described to imply "tiny brain electrodes" that one could use to upload and download our thoughts.[794] Apparently shaped by the fears that advanced capitalism has itself engaged in: our brains apparently now need to become faster to keep up.[795] In relation to such perspective, the recent reiteration by Haraway of Isabelle Stengers quote: *think we must: we must think,*[796] appears as a dire necessity. Haraway further argues that the events that cause the decentralization of "the human" as thinker and world-creator, strongly opens up for a new focus on thinking.[797] In similar manner, also Félix Guattari's insights in *Chaosmosis* opens up for thinking about the production of knowledge and innovation in a more affirmative, yet critical, way. As he puts it:

> "Today our societies have their backs up against the wall; to survive they will have to develop research, innovation still further- the very dimensions, which imply an awareness of the strictly aesthetic techniques of rupture and suture."[798]

The emphasis on thinking is furthermore articulated already as an intrinsic part of posthumanist theory e.g. through Karen Barad's entire theoretical endeavor. In Barad's theory, this understanding is, as will be discussed below, aligned with the continuous deconstruction of the divide between subject and object. In more concrete, this is in relation to knowledge articulated as a questioning of the divide between knower/known.[799]Another link to the understanding of thinking and

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[794] Winkler, R. *Elon Musk Launches Neuralink to Connect Brains With Computers Startup from CEO of Tesla and SpaceX aims to implant tiny electrodes in human brains*, 27 March 2017, Wall Street Journal, online.
[795] Ibid.
[796] Haraway, D. *Staying with the Trouble*, p. 40
[797] Ibid. p. 30
[798] Guattari, F. *Chaosmosis, an Ethico-Aesthetic Paradigm*, Bloomington and Indianapolis: Indiana University Press 1995 [originally published 1992 in French]. p. 132-133.
[799] Barad, K. *Meeting the Universe Halfway,* e.g. p. 379

knowledge creation in posthumanist theory is the affiliations to Spinoza. In the Spinozist vein, this is also articulated by e.g. Moira Gatens and Genevive Lloyd in the manner that thinking as an individualist practice is questioned.[800] Barad, Gatens and Lloyd as well as Haraway, furthermore make visible that to pose the question of who may create knowledge, and in which way knowledge is produced, is a deeply materialistic practice. Such practice is furthermore also directly related to the *ethico-political* emphasis of posthumanist theory.[801] This emphasis on how think about knowledge is subsequently understood as an ethical practice where it becomes possible to think matter differently. In this chapter, I will first proceed with shortly discuss the imaginaries produced by such actors as Musk on "augmented intelligence" before proceeding towards how we may think about such call for intelligence as a call for thinking in a more posthumanist manner.

8.1 The cyborg as a human with augmented intelligence

The emphasis on knowledge as digital information in business narratives has here been encountered in several different forms. As briefly introduced above, it however comes to us in a very specific way when it is discussed in the form of "neural laces" as described by Elon Musk. Its proponents also generally describe the need for technology in the form of neural lace as a means for humans to keep up with the pace of the "nonhumans". In this understanding, the human is thus perceived as somewhat lacking behind in the race for intelligence that (some) nonhuman bodies soon will excel in. For this reason, it is argued that humans need to improve their brains in order to be able keep up with computational networks. Nick Bostrom expresses this movement towards increased intelligence of humans through technological development as a very human endeavour since:

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[800] See e.g. Gatens, M. and Llod, G. *Collective Imaginings, Spinoza, past and present.* Abingdon and New York: Routledge, 1999.

[801] Barad, K. *Meeting the Universe Halfway,* e.g. p. 380 C.f. Gatens, M. and Llod, G. *Collective Imaginings, Spinoza, past and present*, p. 36-38.

> "The human desire to acquire new capacities is as old as our species itself. We have always sought to expand the boundaries of our existence, be it socially, geographically, or mentally. There is a tendency in at least some individuals always to search for a way around every obstacle and limitation to human life and happiness."[802]

In framing such idea of the human, Bostrom furthermore notes that it is an old idea that the human would one day, through the help of technology, transcend itself. This logic is in Bostrom's understanding of human enhancement also explicitely connected to "rational humanism" elaborated on through "The Age of Enlightenment". In doing this he aligns himself with liberal theorists that have been influential in articualting the connection of the human through property.[803] The relationship with humanism and a remaining view of property logics also is of course not especially invisble in the manner that a businessperson such as Musk articulates the need for increased human enhancement. As Musk further argues, we (humans) have already augmented their capabilities with technology like mobile phones and other devices, all connected to the internet and. As Musk expresses his vision, the idea of neural lace would however take this augmentation one step further as it would occur through a brain-computer interface in a way that would truly begin to meld human and machine.[804]

The way that Musk articulates that we now all are cyborgs specifically well resonates with Hayles' analysis of how the cyborg is created as a technological icon. As she puts it, what is central to the construction of such cyborg is the idea of informational pathways that connects the human body to "prosthetic extensions".[805] In the case of the

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[802]Bostrom, N. *A History of Transhumanist Thought,* available online as pdf: http://www.nickbostrom.com/papers/history.pdf Originally published in Journal of Evolution and Technology, Vol. 14 Iss. 1, April 2005 (2005); reprinted (in its present slightly edited form) in *Academic Writing Across the Disciplines*, eds. Michael Rectenwald & Lisa Carl, New York: Pearson Longman, (2011) p. 1

[803] Ibid. p. 2-3

[804] Interview with Elon Musk: We are already cyborgs. Code Conference, 3 June 2016, Recording, available on Youtube, accessed 2 April 2017.

[805] Hayles, K. *How we Became Posthuman,* p. 2

mentioned neural lace, this is articulated e.g. in the manner that "brain interfaces" are pictured as a pathway to such augmentation. And as we have seen in chapters four, five, six and seven, different interfaces function as pathways to interactions between human and digital bodies also where the cyborg imaginary is made less explicit.

The establishment of such pathways may all be understood to build upon an assumption, as Hayles argues:

> "(...) of information as a (disembodied) entity that may flow between carbon-based organic components and silicon-based electronic components to make protein and silicon operate as a single system."[806]

And as she further notes, this process and dream of disembodification was already in the mid 1990's identified with an idea that it could soon become possible to extract human memories from the human brain and import them directly to computer disks.[807] In the manner that a businessperson such as Musk now articulates this narrative, it also becomes significantly plausible to connect the idea and need for "augmentation" of "intelligence" to practices of advanced capitalism.[808] From a posthumanist perspective, this focus may also be specifically criticized for its anthropocentric commitment. As mentioned above, this becomes obvious through the perspective from which Bostrom articulates his idea of the human. Also, as Braidotti points out, in line with the disembodied understanding idea of intelligence- these ideas are exclusively concerned with the human mind. The body (as if it was other than the brain) is not considered for improvement.[809]

However, posthumanist theory is neither necessarily adverse to the possibility of increased intelligence through technological development.

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[806] Ibid. p. 2

[807] Ibid. p. 13, and c.f. 4.4.

[808] This connection is, as discussed throughout also directly articulated in ideas about how control over information is not a business practice that remains within imagined boundaries of markets, but is invested in all bodies in the form of an "informatics of domination" C.f. also in more specific above 6.4.

[809] Ibid.

As Hayles, argues, the posthuman may very well share with the previously dominating idea of the human, an "emphasis on cognition rather than embodiment."[810] Hayles furthermore however argues that it becomes problematic if this endeavor is carried out through the liberal tradition rather than disrupts it.[811]

Thus, when thinking about knowledge in a posthumanist sense, one continuously needs to be aware of the lurking tendencies to re-erect a human, which of course is not so generally human at all (in the manner that e.g. Bostrom describes it). This critique is almost too obvious to make from a posthumanist perspective but still, it continuously needs to be iterated that many humans do not at all seek to expand boundaries of its existence either in geographical, social or mental ways. Rather, many humans die at the boarders that other humans have erected. And do humans then not produce those boarders? [812] In this manner, a posthumanist perspective is rather, as Hayles argues, that "conscious agency", has never been "in control".[813]

However, as we know by now, the production of a knowledge society is not necessarily one that produces knowledge in a way where it may be diffused. Furthermore, even if one may "access" digital platforms where thinking and awareness could spread, such platforms may at the same time as they are possible to access (if they are) also be imbued with a capitalist logic. As discussed in chapter four, knowledge under this logic becomes just another kind of "asset" or "resource" which needs to be maximized through new forms of capture.[814] Furthermore, as discussed in chapter seven, a social media platform may also be thought in terms of property that holds up some bodies while other may pass.[815] And as discussed in the first few lines of this chapter, even in terms of spreading news, the promise of "community" platforms now appears to run short.

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[810] Hayles, K. *How We Became Posthuman,* p. 5.
[811] Ibid. p. 5.
[812] C.f. Esposito, R. *Persons and Things*, p. 32-33
[813] Hayles, K. *How We Became Posthuman,* p. 288.
[814] See above 4.3.
[815] See above 7.3.

Yet, and maybe even more specifically as a reaction to this, as Haraway puts it: think we must.[816]

In all its focus on how to advance the intelligence of the human, one may for this reason also follow the ethico-political endeavor of posthumanist theory further. As Dolphijn and van der Tuin makes explicit, a way to perceive ethics in line with this thinking is to imagine how dualist regimes are pushed to an extreme. This push can here, also in line with Hayles be articulated in a manner where we also: in a *hopeful* manner, may question the exclusivity of thinking as a capacity of the human. Like in many good science-fiction stories, the narratives of technology development and capitalism now appear to lead towards the very real question of: *Who- or what- may create knowledge?*

In this regards posthumanist theorists have already also significantly contributed with guidance in how to question the dominant understandings of thinking. As briefly discussed in the introduction, the idea to produce new images and new mythologies in themselves function as ways to reach beyond the dreams dreamt by those in power over the current world order. I will here repeat and continue some mythologies that could function as ways to further make visible, and contest, the way that knowledge is believed to be an exclusive human capacity. Furthermore, these mythologies will be put in touch with some of the examples encountered in this thesis.

8.2 What can think?

The fears that one-day the human species would have to cede its place as the exclusive species of thinking to technological bodies have been articulated in both science and science fiction. Combined with otherwise advanced technologies, such production of "artificial" intelligence could possibly also lead to the creation of bodies so similar to humans that one could no longer tell who is human and who is not. To counter-act the sense of uncertainty that humans would face in such case, the famous *Turing test* was developed. As Hayles tells the story, this test was developed by Alan Turing in the 1950s in order to be able to separate a

[816] Haraway, D. *Staying with the Trouble,* p. 30.

human from a machine. In this test, the job is to try to distinguish verbal performance from embodied reality in order to tell which one is the intelligent machine and which one is the intelligent human. If one cannot make this separation, it is proved that the machine can think. In this test, Hayles argues, intelligence is significantly produced in a way where embodiment is erased in a way so that intelligence is perceived as a "formal manipulation of symbols" rather than an enactment in the world of humans.[817] However, as Hayles points out, the perception of how this test is set up is generally also flawed in how it has been reinterpreted. While the aspects just described where one is to distinguish between human and machine is widely recognized, it is not equally well-known that the first example of Turing offered is to be able to distinguish between a man and a woman. She furthermore indicates that the inclusion of such example:

> "Turing implied that renegotiating the boundary between human and machine would involve more than transforming the question of "who can think" into "what can think"."[818]

Hayles further specifically points out the possibility of thinking about information in terms of how they make visible the relation of human subjectivity to its environment. This could be done e.g. to visualize how human and information systems are part of larger cognitive systems. In this manner, thinking is pictured to occur both by human and nonhuman actors.

[817] Hayles, K. *How We Became Posthuman*, p. xi
[818] Hayles, K. Ibid., p. xiii

As Hayles further argues:

> "To conceptualize the human in these terms is not to imperil human survival but precisely to enhance it, for the more we understand the flexible, adaptive structures that coordinate our environments and the metaphors we ourselves are, the better we can fashion images of ourselves that accurately reflect the complex interplays that ultimately make the entire world one system."[819]

Karen Barad furthermore also argues that posthumanist theory pushes the same boundary when it aims at accounting for ways to take into account differences that matter. As she puts it, the emphasis on situatedness may be understood to actively make the very knowledge production part of the world it creates.[820] This in turn breaks with the final humanist assumption- that there is a division between knower and known. As a help to show how such arguments come about, she has e.g. the *brittlestar*. This creature surprised researchers at the beginning of this millennium, by exhibiting that instead of having no eyes, as previously thought, in fact it was "all eyes". [821]

As Barad tells the story, the researchers were amazed to find out that:

> "(...) the brainless and eyeless creature called the brittlestar, an invertebrate cousin to the starfish, sea urchin, and sea cucumber, has a skeletal system that also functions as a visual system."[822]

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[819] Ibid. p. 290.
[820] Barad, K. *Meeting the Universe Halfway,* p. 379
[821] Ibid. p. 369.
[822] Ibid. p. 369.

Furthermore, she notes that:

> "The brittlestar is a visualizing system that is constantly changing its geometry and its topology – autonomizing and regenerating its optics in an ongoing reworking of its bodily boundaries. (...) The brittlestar's bodily structure is a material agent in what it sees and knows as part of the world's dynamic engagement in practices of knowing."[823]

In this manner, Barad, just like Hayles in relation to the Turing test, makes visible a way to think about knowledge production as something always related and always material within the body.[824] Subsequently, both of them can be understood to break with the traditional humanist ideal of knowing as in such cases "intelligibility requires and intellective agent, and intellection is framed as a specifically human capacity."[825] With such reshaped understanding of thinking, one might argue that they, as well as other posthumanist theorists, open up just for decreasing the "human" value of thinking. One may then again wonder where this leaves the human? The answer is of course already in the examples. The human through these imaginings need to be understood in a very different manner. And this difference is articulated specifically in the way that we think about knowledge. In more concrete this perspective emphasizes, as discussed, that matter matters for how thought can be articulated. Furthermore, these perspectives do not remove the importance of knowledge from society. Yet, society, just like thought, will need to be able to encompass more bodies than in the liberal humanist sense. The examples throughout this text have furthermore already continuously moved towards this conclusion. Already when knowledge is expressed as something that may be embodied as separate from humans one may arguably articulate that a rupture is produced in the idea that the human mind is strictly situated in the individual human body. When knowledge

[823] Ibid. p. 375.
[824] C.f. Ibid. p. 379
[825] Ibid. p. 379.

subsequently becomes an even increasingly integrated part of smart digital machines, this exclusivity is decreased further.

When these practices are articulated, they do however not necessarily consider how such practices are not practices of knowledge growth only, but also modifications of bodies- human and nonhuman. When considering how to build new myths around these bodies, it has here specifically been expressed that a visibilization of matter can reshape our understandings of what is at stake. Barad similarly expresses this endeavor of posthumanist theory in the way that "knowing is a matter of differential responsiveness (as performatively articulated and accountable) to what matters."[826] In more concrete this implies to continuously take accountability "to what matters and is excluded from mattering"[827]

Another way, in which knowledge creation is understood differently in posthumanist theory, and as a form of ethics, is the way that convergences in general are met with celebratory rather than fearful thinking. This aligns with the way that such convergences may be understood as a step towards thinking a more deeply relational ontology. Below, I will articulate such imaginary of knowledge around the potential to think in "kinnovative"[828] ways. Such kinnovation will also here be emplaced in a way to bridge the specific death oriented understanding of the killing of the thinking human- and the potential pursued in innovation discourses that emphasizes the generative capacity of knowledge.

8.3 Kinnovative thinking

A significant thread of this thesis is that human and digital bodies may be considered as increasingly entangled through different innovation oriented discourses. These discourses furthermore stress the importance

[826] Barad, K. *Meeting the Universe Halfway,* p. 380.
[827] Ibid. p. 380.
[828] Haraway, D. *Staying with The Trouble*, footnote 18, chapter four p. 209: "We must find ways to celebrate low birth rates and personal, intimate decisions to make flourishing and generous lives (including innovating enduring kin- kinnovating) without making more babies."

to continuously produce- or generate- new types of knowledge. Yet, the discourses, like the focus on knowledge in general still remains at a level where innovation growth is considered in line with advanced capitalism. This implies e.g. that it is understood as generally good that new innovations come into being as this is a way to grow the economy and thus, society.[829] For good reasons, human and digital bodies are often described as forming networks, e.g. in ways where connectivity is emphasized. Innovation discourse can in this sense be said to emphasize a kind of thinking which emphasizes the need to produce increased entanglements between different bodies. However, as Haraway argues, to think relationally, or "tentacular" in a posthumanist- or even post posthumanist- sense, is not so easy. And subsequently, one could argue here: it is not as easy as to merely emphasize the capacity of digital bodies to generate connections to grow knowledge production. The reason for this is that generativity like thinking cannot be understood in separation from which kind of connections it makes possible. Stepping slightly outside of our digital-human entanglement, we may find fruitful guidance in a renewed imaginary of generativity from Adriana Cavarero's rewriting of the myth of Demeter, the Great Mother.

In many cultures, Demeter functions as a figure for life and fertility. Demeter furthermore has the power to transmit the secret over such functions to human beings.[830] Cavarero further writes that in Plato's capture of this myth, Demeter is derived of such force and instead pictured as a "nurturing creature: she gives food and with it she cares for and protects life." Thus, her force to decide over life and fertility by electing whoever she will pass this gift onto is lost. Instead of connecting such capacity with Demeter, it is Hades, as the lord of the underworld and death, which is granted a central role. Demeter is perceived as opposite to Hades and thus as a light and generative force while Hades is understood to live in shadows and cold. As Cavarero further argues, by staying true to the Western patriarchal order these oppositions further

[829] See e.g. 4., and 6.

[830] Cavarero, A. *In Spite of Plato, a Feminist Rewriting of Ancient Philosophy,* trans. Anderlini-D'Onfrio, S., and O'Hearly, A. Cambridge and Oxford, Polity Press in association with Blackwell Publishers Ltd., 1995 [originally published in Italian 1990] p. 57

play out in the manner that Demeter is violently overpowered by Hades. In more concrete, this line of thinking is pursued when Hades abducts Demeter's daughter Kore from her and subsequently marries her. While Kore is abducted, Demeter no longer generates and the whole earth is subsequently rendered sterile. Such sterility threats humankind and for this reason Hades is persuaded to send Kore back to her mother for a period of time every year. Thus, warm seasons can come into being and fertility may return to the earth for a time every year.[831]In this manner, an regime of power is established where the generative capacity of life is made dependent on a (patriarchal) and death-oriented order.[832] As Cavarero writes, this myth where Hades takes control over Demeter's power is oblivious to the force of *physis.* And subsequently, it denies the maternal capacity of creating new life. [833]

The hindering of *life* through power is furthermore a central theme in posthumanist theory when visibilizing which bodies may connect and not. While remembering the force of *physis* for the sake of life in Cavarero's reimaginary of the myth, a similar imaginary could also be created for the sake of our society of thought. Instead of a singular death-driven patriarchal order, we must today however recognize that posthuman physis face a differentiated form of poswer, which reaches beyond both traditional understandings of patriarchy as well as capitalism.[834]

When thinking about the discourses of innovation and their connection to generativity, the sorrow over an absent daughter will however not hinder more fertile connections to come into place anew. Following Donna Haraway, we know that our cyborg bodies did not emerge from Eden. And subsequently, both their fathers- and mothers we might add now- are inessential.[835] While it may be relevant to now forget about mothers, fathers, as well as the idea to make babies,[836] the

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[831] Ibid. p. 57-59.
[832] Ibid. p. 59-61.
[833] Ibid., p. 59.
[834] See e.g. 6.4, 6.5.
[835] Haraway, D. *Cyborg Manifesto* in *Simians, Cyborgs, and Women,* p. 151
[836] Haraway, D. *Staying with The Trouble*, e.g. p. 102-103.

cyborg also shows the way towards a desire for connectivity.[837] When thinking about connection in this manner, not all connections matter similarly. In order to think connection in a more deeply generative sense, what is needed is a way to make kin. Such kin-making,[838] or the need to "kinnovate"[839] is furthermore deeply related to which bodies may be produced- and subsequently, which knowledge that may be articulated.

In this manner, also the connected bodies pictured throughout this thesis may be good metaphors to start thinking about entanglements between human and digital bodies in more affirmative ways. Yet, what constantly needs to be recalled is that (as this thesis shows) also in entanglement with digital bodies- human bodies connects differently, and becomes differently augmented by such encounter. Some might not connect at all. A tentacular knowledge in the posthumanist vein is subsequently a knowledge that bodies have to fight for.[840] As Philippopoulos-Mihalopoulos similarly points out, such struggle is furthermore not a battle between equally strong bodies. Some are artificially enhanced, whether through patriarchal or technological norms, some are robots with personhood status and some are humans without smart phones. The outcome of the fight for increasingly posthumanist knowledge in turn matters. Posthumanist ethics is not about expanding knowledge in any general sense, but to render as many bodies as possible strong enough to remain in their being.[841]

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[837] Haraway, D. *Cyborg Manifesto* in *Simians, Cyborgs, and Women,* p. 151
[838] Haraway, D. *Staying with The Trouble*, e.g. p. 102-103.
[839] Ibid. footnote 18, chapter four p. 209
[840] Philippopoulos-Mihalopoulos, A. *Spatial Justice*, p. 62
[841] C.f. 2.4.1. and 2.4.3.

9 POSTHUMAN SUBJECTIVITY THROUGH AND AGAINST PROPERTY

> "Cyborg writing is about the power to survive, not on the basis for original innocence, but on the basis of seizing the tools to mark the world that marked them as other."[842]

There are many ways to talk about property. Yet, many of these imaginaries are never heard. To write in the posthumanist line, or as a cyborg, includes exposing ideas that produce otherness through e.g. the human/nonhuman divide. Aspects that produce such otherness have in posthumanist theory specifically been aligned to anthropocentric and capitalist ideas and practices. As discussed throughout this text, the human/nonhuman divide may be made visible also in relation to how property is conceptualized. This visibilization has here been attributed to ideas of a very specific form of human, as well as a tool for capitalism in more general. In more concrete, this production of humanistic divides in property have here been exposed in relation to a body/mind divide expressed and put in question in relation to intellectual property. Furthermore, the divide between person/thing has been visibilized and questioned in relation to property discourse in more general terms.

A significant narrative of intellectual property is, as discussed in chapter four and five, that such property concerns "intellectual", "immaterial", or "disembodied" matter. Furthermore, as discussed in chapter six and seven, the general narratives describe property as something that can be utilized by humans to control *things*.

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[842] Haraway, D. *Simians, Cyborgs, and Women. The Reinvention of Nature,* p. 175.

As help for exposing the dominating ideals about the human vested in these divides, the thesis has furthered how digital technology may be used to displace the ideas of property that the more general conceptual divides of property run on. As Haraway points out: the distinction between original and copy diminishes when information technology enters. [843] As Hayles furthermore argues, the idea that information is disembodied, is significantly dependent on different types of narratological shifts.[844] In this manner property is first put in question in relation to its assumption between physical and intellectual forms of property. Furthermore, our cyber-terratologies[845] in the same manner also remind us that the construction of a divide between property and personhood, are embedded in wider theories, discourses, and practices.[846]

What chapter five and seven however also points at is that such boundaries are continuously renegotiated. Furthermore, such reformulations do not necessarily at all occur within the means of what in general legal conceptual terms would be thought of as property. This lack of possibility to understand what is controlled as property from a traditional humanist sense is furthermore specifically articulated from the perspective of digital technology in both chapter five and seven. In these chapters it is discussed how specific practices related to digital bodies may make visible how e.g. contracts, technological barriers, architectural design, as well as a real-name policy may all be understood to function as property. To reach such understanding of property is however not possible through the divisions of property based on the divides suggested in most of the property theories discussed here. When following digital matter through posthumanist theory, however, it becomes increasingly possible to 1) think of property in the way that different power regimes shape and reshape what is considered as its object. From the posthumanist perspective articulated here, this is understood as a way to show how bodies are articulated as possible to dominate under property.

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[843] See the quote introducing part two and Donna Haraway*: A Cyborg Manifesto in Simians, Cyborgs, and Women. The Reinvention of Nature.* p. 165

[844] See chapter four and Hayles, K. *How we Became Posthuman,* e.g. p. 1-24

[845] C.f. Braidotti, R. *Metamorphoses, Towards a Materialist Theory of Becoming,* Cambridge and Malden: Polity Press in association with Blackwell Publishers Ltd., 2002, .p. 172-211.

[846] C.f. above 7 and especially 7.3.

I will return to this aspect below as an imaginary of property in a posthumanist sense which I refer to as *becoming-embodied*.

Furthermore, property may 2) also increasingly be considered in a more entangled manner as specifically suggested in chapter five. When we may think about property in this manner, we move even further beyond (yet through) an understanding of property as conceptually bound to a difference between humans and nonhumans. This image of property, which I will further refer to as *becoming-entangled* furthermore show how ideas about what may be considered as property, may never be solely articulated in relation to one power regime. Instead, as articulated in posthumanist theory, status as both person and as thing relies on intersecting regimes of power. Following thinking of property subsequently makes it possible to think of property increasingly as all forms of power that hold up bodies. Thus, we move away from an articulation of property within the anthropocentric as well as more singular capitalist perspective of property.[847] This understanding of property also more directly links it to the power which makes it function as an effective means of control over bodies. When making such alignment between property and control, one subsequently further articulates property in the sense of power expressed in posthumanist theory. Property may in this manner be more directly mapped onto the notions of *biopower* identified as an intrinsic part of advanced capitalism discussed in posthumanist theory.[848]

When understanding that property can be understood to effectuate such forms of power, one could subsequently, argue that we need to abolish property to move towards a posthumanist society. However, instead of moving towards this direction, one could also argue that an even more prominent aspect that may be posed against this understanding is to ask the question: do we even know what property can do?[849] To stay with this trouble may further imply just to recognize how the developments in advanced capitalism lead us just towards such lack of knowledge- or even confusion- in relation to property. Without

[847] Ibid.
[848] See e.g. 6.4.
[849] C.f. Braidotti, R. *The Posthuman*, p. 190.

defending property (since if we do not know what it can do- we certainly do not know if it will do anything good either), we will may therefore return to some ways in which we can argue that convergences between human and digital bodies at least make possible new questions about property. Furthermore, as a final note, these questions will be articulated in a continued effort to open up property for further struggle between posthuman bodies.

9.1 Becoming-embodied

I started out in chapter four by arguing that today, we find ourselves in a stage, as pointed out by Donna Haraway where communication technologies, and subsequently microelectronics shoot through our every beings. This in turn, has arguably lead to a stage where the copy rather than the original has become the norm.[850] Read through the lens of advanced capitalism as discussed in chapter four, six and eight, these images arguably become frighteningly alive as we seem to stand before a development of property, which significantly disrupts the dominating legal understandings of what property is. Significantly, this becomes visible in the manner that advanced capitalism runs on the electronics that is "information" and that almost anything, seems to be possible to turn into information.[851]

This identification of a lack of boundary towards power is of course, perceived in negative light in terms of posthumanist theory. However, another way to think more affirmative about this development is that it also makes visible a not so strict boundary between *body* and *mind*. As discussed in chapter four, this divide has generally informed a way of perceiving "the" human, where thinking has held a hierarchical position in opposition to body. In this manner, thinking has functioned as an informative practice for how to depict "human" activity from the behavior of nonhuman others.[852] Furthermore, such thinking is perceived as a disembodied practice, which may rise above material constraints. A

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[850] Haraway, D. *A Cyborg Manifesto* in *Simians, Cyborgs, and Women,* p. 165. and 150
[851] See e.g. 1.2.1.
[852] See e.g. Braidotti, R. *The Posthuman*, p.172

variation on this kind of "fetishization" of the mind is arguably also how knowledge is perceived as something organic that needs sharing to grow. Such narratives have in this text been identified both in terms of innovation theory (e.g. Open Innovation) as well as where such defense is used against commodification of knowledge.[853]

What all of these narratives on the commodification of knowledge however make very obvious is however *just* that knowledge is never disembodied. Instead, it continuously depends on different forms of bodies in order to be perceived as e.g. information, a work, an invention and so on. Furthermore, this process shifts when a new type of matter, such as digital bodies, may be utilized to embody knowledge.[854] The force of intellectual property as a means to sustain knowledge-based capitalism can in this manner, ironically, be understood as exactly that which makes visible the materiality also of "products of the mind" in terms of property.

However, embodification of "intellectual" property cannot stop with a mere understanding that such property always also is material. In fact, this understanding may even be an old one that no slightly constructivist lawyer would ignore. Rather, a practitioner in intellectual property law generally needs to be very well aware that the framing of the *intellectual* always connects to how successful one is in framing the *material*. Thus, questions of how to make successful claims of intellectual property involves the possibility to claim that something is an invention and not a discovery, a work produced by a person etc.[855] Yet, even if this is the case, intellectual property still remains within a framework where it is perceived to consider "knowledge". Furthermore, it is framed within theories that sustain that capture of knowledge leads to the best growth of knowledge in a very general sense.[856] This is so in spite of the narratives produced within the framework of the access to knowledge-movement. As briefly discussed, through this movement it has

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[853] See above 4.2.
[854] C.f. above 5.3-5.8.
[855] See e.g. on claiming intellectual assets as property in Petrusson, U. *Intellectual Property & Entrepreneurship,* p. 114-116; 122-127
[856] See e.g. Verzola, R. *Undermining Abundance Counterproductive Uses of Technology and Law in Nature, Agriculture, and the Information Sector*, in ed. Krikorian, G. and Kapczsynski, A. *Access to Knowledge,* p. 253-276

continuously been discussed that the idea of intellectual property is a Western construct. Furthermore, it has been described as a construct that, as Vandana Shiva argues, produces a "monoculture of the mind".[857]

In this text, such articulations have just slightly been addressed. The reason for this is that the aim has rather been to focus on how property –intellectual or not- in a much more concrete manner may be understood to function as a means to produce a posthuman condition. At this stage, we may however conclude that whether intellectual property destroys or enhances knowledge production in general or not, it now seems increasingly possible to raise question of its disembodied character. A disbelief in the disembodied character of property is here furthermore echoed also as regards to property in general. As discussed in chapter seven, the narrative of embodiment of the intellectual may be furthermore countered through a rethinking of property boundaries in general. In chapter seven, this focus was specifically developed in relation to the seemingly abstract boundary in property theory between persons and things. This articulation subsequently also leads towards the next aspect of property that may be opened up through posthumanist theory, the idea to think property as more deeply entangled.

9.2 Becoming-entangled

The dominant idea of Western thought today is, as continuously discussed, that there is a difference between persons and things. This difference making between persons and things manifests itself in many way in the legal concepts. One such way is that one may perceive of a boundary between property and personhood. Through such view, personhood is meant to, at least to some extent; function as a means to limit commodification in humans.[858] This kind of thinking is allegedly difficult to cope with in relation to intellectual property in general. As discussed in chapter seven and five, it becomes quite obvious to see that

[857] Shiva, V. *Monocultures of the mind.*
[858] See 7.

"material" of the human body are at some instances possible to think of as property, and in some instances, as personhood.[859]

Posthumanist theory further suggests that a divide between human and nonhuman bodies is even more difficult to uphold when all that lives is subordinated advanced capitalism. One part of advanced capitalism made visible through this thesis is how capitalism connects bodies through information technology. Such means of control may thus be understood to connect- or entangle- bodies to an increasing degree than previously. Furthermore, posthumanist theorists argue that these processes even imply a commodification of life itself. Subsequently, one would assume that these processes of control could manifest itself e.g. in extended property concepts etc. However, apart from developments in e.g. intellectual property right constructs, it is in chapter seven argued that such extension is not immediately visible strictly as a property development. Instead, other means of control appears to be used such as architectural and other technological design such as "community rules".

In this chapter, it was argued that a better way to understand how property functions and makes up boundaries is through a notion of property as something that "holds up bodies". This concept, developed significantly by Sarah Keenan, makes it possible to think e.g. about property as a form of effective power that hinders or makes bodies move. This also implies that one may follow the aim with the concept of the body further to argue that e.g. architectural design functions as a way to produce entanglements between bodies. Exactly how possible this is further depends on the materialities of bodies employed, by which actors etc. Furthermore, this idea of property as a means to hold up bodies makes it possible to think about how production of affects- or regimes of power- makes it more likely that some bodies connect while others do not.

To think about property in this sense furthermore arguably also opens up for a way to think in more affirmative ways about both property and entanglements between human and digital bodies. One way to do this could e.g. be to affirm how advanced capitalism already has transcended the idea of the property object and made it possible to think

[859] See above e.g. 5.1., 5.2., 7.1.1., 7.1.2.

about bodies as increasingly entangled. When this occurs, one could also argue that when an entanglement occurs digital bodies consistently become something else than "passive objects" that may be captured as property. Instead one may see how they also take up a role to shape and reshape an entanglement of bodies. This may be exemplified e.g. in the manner that a market actor aims at controlling "platforms" in a much more fluid/generative manner, rather than through "exclusive rights" to a property.[860]

To think property in this manner also opens up for a dynamic way to consider the shifting positions of bodies as an entanglement. This is important not the least for the sake of motivating a possibility for change in power between bodies that make up the constellation of bodies. If one is to fight an entire (and strongly validated) legal construct, such as property, in a legalistic manner, such fight is likely to be difficult (at least as long as the power regime of advanced capitalism still lasts). This is not the least visible in relation to the lack of momentum in hindering increased control of intellectual property to digital bodies.[861] When thinking about property as different forces that shapes and reshapes entanglements, it may however become possible (as well as necessary) to fight effects of property control on other terms. Furthermore, when property depends on the possibility to increase entanglements, it may also be easier to shift how it controls an entanglement. One example of such shift of property control is the outcome of the specific case where the question of "real name" was raised. After protests, this case indeed ended with Facebook changing its policy. Subsequently, they receded to the claim that as the persons in question considered the used names as their real names, the utilization of those names were in fact in accordance with the real-name policy. One may argue that this was something Facebook did out of free will to support e.g. their policy on "Diversity"[862]However, maybe more logic could be the manner that knowledge based business (as part of advanced capitalism) emphasizes the need for connectivity.[863]

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860 C.f. Keenan, S. *Subversive Property,* p.70

861 See above 5.6.

862 See e.g. Facebook: *Preamble of the Community Standards:* https://www.facebook.com/communitystandards accessed 1 April 2017.

863 See above 4.2.

When it is made visible how connectivity is hindered, this implies risks for a business logic (if perceived as sufficiently closed off by a sufficiently large number). Even if digital bodies may be controlled as property today, consumers are not necessarily versed to entirely closed off platforms.[864] After all, property is only property as long as bodies hold it up as property...

Thus, what a thinking of property as a means of constructing entanglements makes visible is that property, if it is to function as a means of control, needs to continue to connect bodies to each other. If this form of property does not manage to expand itself, or to have a critical mass of "users" connected, it will not function as property. The rational behind this understanding is that entanglements between bodies always function as a form of network of connection and disconnection, and its growth is dependent on even more connections...

9.3 Becoming-copy

> It was the 21 November 2016. I logged in to my Instagram account and was met by the news that the Swedish radio profile, Stina Wollter, and her popular, feminist, Instagram account, @stinawollter, had been banned from Instagram as she/it had been in breach of the Terms of Use.[865] The reasoning behind this suspension was, as discussed by Wollter in interviews following the ban, that she had sent what Instagram deemed as *inappropriate content* to other users.[866] The content she had sent consisted in pictures that she had herself grown all too used of receiving. As a response to receiving such content, she therefore answered by "sending back" the picture that another user had sent her, in combination with a number of other,

[864] See e.g. the variety of open/closed business models such as Spotify: www.spotify.com; Google: Android combined with Android compatible smart devices: www.android.com

[865] C.f. Instagram Terms of Use. https://help.instagram.com/478745558852511

[866] See e.g. the Swedish newspapers, Aftonbladet: *Instagram har stängt ner Stina Wollters konto,* 21 November, 2016, online, and Expressen: *Stina Wollter utkastad från Instagram,* 21 November, 2016, online.

similar, pictures. Due to this action, she was subsequently expelled from Instagram. As a response to the ban, the hashtag #Openstinasaccount was quickly created. In just one day, it was filled with innumerous tags of pictures were it was demanded that Wollter should be allowed to regain access to her account. Specifically, it was argued that what Wollter had done, was nothing compared to the amount of inappropriate content that she, and other women, receive every day, just through their presence on digital media, such as Instagram.

The 23 November, Wollter's account was reopened.[867]

Figures matter when we are to think which matter that matters. The digital, as well as the digital copy, has certainly filled its share of figuration when it comes to advanced capitalism. Whether met with horror (by those who live on their or others creations) or promise as a means for sharing (e.g. in the so-called piracy movement[868]), the digital copy plays a part. The copy may furthermore be connected to the specific dreads of the replicas that now haunt the dominating ideas of human purity and intelligence superiority as discussed in chapter eight. In relation to the reproduction of the human through the copy, one may specifically also point at the idea of the robot. As Braidotti writes, industrial culture invented the term robot almost 100 years ago to denote a new class of industrial slaves. The robot was made as an image of Man, who in turn was made in God's image. Through this, also the relationship between the original and the copy was remade. In this rearrangement, a fear of that mixture of evil and magical powers traditionally associated with the body-doubles was also developed. As Braidotti puts it, the robot in these imaginaries is in fact better than the human: the copy is superior to the original "[t]he machine-like body-double has been perfected: it is the artifice elevated to the highest possible degree of sophistication."[869]

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[867] As described by e.g. the Swedish newspaper, Göteborgs-Posten *Stina Wollter i segervrål mot Instagram,* 23 November, 2016, inline and of course on her account @stinawollter: https://instagram.com/p/BNKT3i8hFKm/, Instagram.
[868] See e.g. The Swedish Piracy Party: www. piratpartiet.se, accessed 9 April 2017.
[869] Braidotti, R. *Metamorphoses, Towards a Materialist Theory of Becoming*, p. 219

In Karen Barad's account, the copy is too shallow to function as a figure for the ways that we may think about matter in affirmative ways. As she puts it, the copy is only about mimesis and we need to move towards biomemis. We should not think of more of the Same, more of the similar. Rather, we need animals that exhibit generative, reshaping traits, such as e.g. the brittlestar.[870] However, coming (through as well as away) from the perspective of intellectual property as well as sci-fi imaginations, one may wonder- when was the copy ever about mimesis? Captured inside the idea of industrial logics, yes, then the copy is to make more of the same. Yet, what is it that the copy carries?

In the movie Blade Runner from 1982, like in many other sci-fi entanglements, the plot significantly rests upon the difficulty to consider what is a copy and what is an original. In the movie, the copies- replicants- are produced on a largely deserted planet after most humans have left. While continuously enhanced in terms of intelligence to melt in as humans, they to some degree may be possible to detect just as copies. While copied, and similar-looking, these copies do not entirely imply reproductions of the same. This is not the least obvious in the manner that they are so difficult to capture. While being slightly same, yet always different, they may furthermore be understood as questioning the kind of sameness depicted by e.g. Barad and the copy. This is specifically made visible in the final scene when the (supposed) copy saves the (supposed) original and we are again thrown back to the question- who is most human? And what does it mean to be a human?

This excessive production vested in the notion of the copy may be imagined even more clearly through the insight that, as has been pointed out by e.g. Marcus Boon: The word "copy" comes to us from the Latin word "copia," meaning "abundance, plenty, multitude.""[871] The word copia furthermore may also be directly associated with the Roman goddess associated with abundance, *Copia*. As furthermore pointed out by Boon, very little is known about *Copia*. She is however mentioned in

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[870] Barad, K. *Meeting the Universe Halfway,* p. 382-383

[871] Boon, M. *In Praise of Copying,* Camebridge and London: Harvard University Press, 2010. E-book„ p. 41 Also thanks to Danilo Mandic who pointed out this connection of copy as abundance at a session on the ISHTIP conference in Glasgow 6-8 July, 2016.

Ovid's *Metamorphoses* at an instance where Acelous transforms himself into a bull in order to win over Hercules. Hercules then responds by breaking off one of his horns. As cited by Boon however, this results in the turn of events where:

> "(...) the naiads filled it with fruits and fragrant flowers, and sanctified it, and now my horn enriches the Goddess of Plenty."

This may then be a direct connection to Copia as she has been pictured on a Roman coin with such horn of plenty, overflowing with the bounty of the earth. From this is also derived he word "cornucopia".

Connecting this figure to the power regimes as well as ideas on property advanced here, I will propose that the copy may function as a figure of thinking beyond the fixity of bodies. The break with fixity, which informs both a logic of capturing knowledge as a commodity and as a form of opening for biopower, may in this manner also be understood in a more affirmative sense. Connecting human bodies to digital bodies makes human bodies into something else. Due to e.g. advanced capitalism, this transformation is not something that per se will change human bodies for the better. Such kind of change is still something bodies have to fight for.[872] Yet, still, it may continuously be better to be a copy than a human. Rather a hybrid body, which continuously affirms the non-stability of life, than a resurrected original. The kind of virtuality digital materialities inhabit may in this imaginary furthermore be understood to depict an opening for how to think *excess* of bodies. To think about the convergences between human and digital bodies in this manner is different from thinking a mere connection between human and "digital". Thinking and finding excess is about finding ways to shift the entanglement of bodies, to reorient them in ways where they become livable.

When utilizing this understanding of bodies and the need to fight for more livable worlds, the mythology continuously needs to stay with

[872] Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 11

the trouble. In this trouble, we remember that there are quite a few of us that have never really been human.[873]

In spite of the consistent lack of status of being human, we however also need to remember that advanced capitalism produces new forms of inhumanities. The development towards a convergence between human and digital bodies therefore continuously needs to be connected also to theorists that have pointed at the dehumanization, or desubjectification, produced through advanced capitalism in general. Braidotti also argues that the understanding of what posthuman bodies could be capable of still remains to be explored by embracing posthumanist ethics as an "ethics of experiment with intensities". [874] She furthermore argues that by understanding the embeddedness of posthuman subjects in ontological relationality, one can get an increased understanding for the inter-connection between self and others, which includes the ones that have been perceived as "non-human or 'earth others'".[875]

And subsequently other categories than the dominating idea of the human are needed to shoot through the posthuman. We may not (with any ease) argue that we, in the posthuman stage, are post power, post class, post gender or similar. The idea of the human is, as mentioned previously, built upon a humanistic standard of exclusion of *others:* women, animals, black persons, transgender persons, and gay persons. If the posthuman condition indeed would manage to transcend such otherness, it would imply a great opportunity for those who were never human to begin with. [876]

When imagining a rearrangement of the human, each body always has the potential to move the assemblage in another direction.[877] This is not to underestimate the force of structures but to understand and

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[873] See Braidotti, R. *The Posthuman,* e.g. p. 1 and p. 88 C.f. MacCormack, P. P*osthuman Ethics, Embodiment and Cultural Theory*. p.1

[874] Braidotti, R. *The Posthuman,* p 190.

[875] Ibid.

[876] See e.g. Nakamura, L. *Cybertypes, Race, Ethnicity and Identity on the Internet*

[877] Philippopoulos-Mihalopoulos, A. *Spatial Justice*, p. 62 Original emphasis.

exercise the potential in engaging with them as never all-determining. [878] Bodies continuously produce effects and things could always be different.

As was discussed in chapter four, this trouble is visible first in how the digital copy learned to escape all the established ways of controlling the copy. When digital production then opened up for an increased form of production through lessening costs for both production and reproduction, advanced capitalism gains new opportunities to expand. However, the dissolution of the immaterial from the material in this sense also opens up for the very instance of materiality, made visible in the escaping copy. In this manner the copy leads the way to show that matter is always excessive (and some more than others). When thinking about the way that bodies always exceeds conceptual regimes in this manner, we can no longer say that we know what property can do. And simultaneously, we do not now what the bodies entangled held up as or by property may do. What we do know however, is that there is always excess, always abundance. And this is the way that property is always-already open for the potential of becoming-copy.

[878] Ibid. p. 62-63 "Each assemblage is a lawscape, and the lawscape keeps moving."

Epilogue: The Outside?

"For me- how could there be an outside-of-me?
There is no outside!"[879]

This thesis has taken as a starting point that we currently live in what may be characterized as a posthuman condition. More specifically, it has focused on how digital technology shapes and reshapes the understanding of what it implies to be a human, and not. Specifically, the text has engaged in such focus in relation to how advanced posthumanist theory may be utilized to make visible the assumptions of pure materiality of human and digital bodies respectively. Furthermore, this visibilization has targeted the binary assumptions that are embedded in theoretical underpinnings of property concepts. Through a focus on advanced capitalism, as identified in posthumanist theory, it has been possible to show how such binaries are being pushed to an "extreme". Subsequently, the liberal humanist boundaries between the human and nonhuman, which run through property theory, may be understood as increasingly obfuscated.

Following the general understanding of law in the same liberal humanist vein, such transgression of a boundary could be perceived as a threat to "the human". The reason for this is that, while property ownership is intrinsically connected to the idea of what it implies to be a human- the human is not supposed to be property itself.[880] And

[879]Nietzsche, F. *Thus Spoke Zarathustra,* New York Barnes and Nobles, 2005 [originally published in German between 1883-1885], p. 186-187
[880]C.f. Davies, M., and Naffine, N. *Are Persons Property?* p. 1.

subsequently, the law should guard this boundary, as a means to produce and protect the interests of the human. If law is understood as a social contract, something outside the human, the insight that property transcends our general understandings of law, will naturally be perceived as a threat. When we find that property is not separate from persons, we may conclude that the boundary between persons and things is not as rigid as the dominant ideology makes it. As discussed in chapter seven and nine specifically, this creates an opening for thinking about which other forces that have established boundaries around the human to think of property as a pure object. When we learn to think about property in this manner, we necessarily also revise the understandings of law that makes law into an order created by and for *humans*.[881] This understanding is specifically vital for the posthumanist strand of theory, which argues that there are quite a few persons who have never been human.[882] And subsequently, there are quite a few of us for which there has ever been an *inside* of law.[883] When disconnecting law from such understanding, we may now subsequently start to understand also *law* as *posthuman.*

In returning to Spinoza, it also becomes possible to argue that the move towards such understanding of law is indeed nothing new.[884] Just like the posthuman condition is not a condition in a linear recent occurrence. However, what posthumanist theory makes possible is rather to see how law has in fact always been posthuman. This implies to deter from thinking law as a transcendental order, which commands humans to behave in this or that way, for the sake of an abstract greater good.

Instead it becomes possible to, as Deleuze writes, think of law in relation to an ethical vision of the world, where:

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[881] C.f. Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 235-236.
[882] Braidotti, R. *The Posthuman,* p. 1.
[883] Davies, M. *Asking the Law Question,* p. 14-15.
[884] Gustafsson, H. *Dissens*, p. 123-127 including the fotnote discussions.

> (...) it is always a matter of capacity and power, and never of anything else. (...) [T]he less we understand of nature, that is, the norms of life, the more we interpret them as orders and prohibitions.[885]

Gatens and Lloyd also concludes that law in this sense, may be understood in a new way, where it is specifically attuned to the concept of knowledge in Spinoza.[886] Thus, instead of thinking of law as a transcendent order, it becomes something that is vested in bodies, and makes bodies to connect to, and disconnect from, other bodies. In this manner, it also becomes possible to think of law as intrinsically entangled with the need to *understand* how such connections and disconnections are being produced. Furthermore, the ethical orientation prescribed in the Spinozan concept of the body implies that such understanding is always directed towards a desire to create more sustainable connections.[887]

When there is no outside of property, and subsequently no outside of law,[888] this therefore is exactly the joyful message[889] that posthumanist theory attunes itself to. Through such understanding, law is no longer understood as an order tucked away in texts by a supposed sovereign. Instead it opens itself up for investing itself more thoroughly in the forms of power (both of the potestas, but also the potentia kind[890]) that it has always posited. In such understanding of law- as *body*- is no longer differentiated from it material conditions.

The thesis in this manner has explored what may be understood as a pervasive production of digital technology through advanced capitalism where property certainly no longer may be understood to sit quietly somewhere as legal text, a judgment, or

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[885] Deleuze, G. *Expressionism in Philosophy: Spinoza,* p. 268
[886] Gatens, M., and Lloyd, G. *Collective imaginings, Spinoza past and present* p. 95-100.
[887] Ibid. 144-147
[888] C.f. Philippopoulos-Mihalopoulos, A. *Spatial Justice,* p. 1.
[889] Spindler, F. *Deleuze, tänkande och blivande* p. 19
[890] C.f 2.1.2 and 2.4.3.

similar. When considering the emphasis advanced by posthumanist jurisprudence claiming that law has not outside, as also argued in this thesis, may be understood as specifically frightening for those who desire such an outside.

Thinking about law like this subsequently also implies a continuous opening for change as the always remaining excess of bodies. Yet law is also always open for excess in a more affirmative direction and through a posthumanist orientation, we may see that it is also just an excessive production of the "nonhuman" through advanced capitalism, that may be utilized just as a means to think more closely about potential of bodies as posthumanist *law*. If what separated humans from nonhumans was a distinction to which degree one could control (and not be controlled as) property, increased commodification and control of *all* bodies may be understood as a flattening out of differences built upon the human and nonhuman divide.

The thesis therefore, as a finishing note, urges the reader to consider the excess, which the notion of the posthuman in general refers to. In this thesis, such encounter has here been staged as a meeting between human and digital bodies. The understanding moves away from perceiving the human as law-creator and understands that many other bodies now create law. Instead of crying over the loss of control over law to machines, urging for superintelligence to reinstate such control, the posthumanist cry for law remains another. This cry is the cry for a materialistic understanding of world making and which knowledge – and laws- that could be created if the goal was to create a sustainable-tentacular- world. Learning from advanced capitalism, this is not an impossible way to perceive of law. Relationality is key, and conceptual boundaries are not rigid- bodies always escape. In this manner, posthumanist ethics emerges as both subject and object of jurisprudence. And law in this sense deeply *needs* to engage itself in *becoming-posthuman*.

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