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Body, Nature and the Phenomenological Perspective

New Materialism and Merleau-Ponty

Master's thesis in Philosophy Supervisor: Ståle Finke

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Abstrakt

I denne avhandlingen utforsker jeg materialiseringen av fenomener, forståelse av natur og menneskets rolle i samspillet mellom verden og mening i lys av Jane Bennetts og Karen Barads nymaterialisme og Maurice-Merleau-Pontys fenomenologi. Begge teoriene kommer med svar til den moderne filosofiske forståelsen av fenomenomenet som noe som framtrer for en bevissthet og hvor mening kun skapes i bevisstheten, og ønsker å framlegge teorier hvor materialitet og verden forstås som meningsbærende og utgjør sentrale deler av dette.

Nymaterialistene kritiserer likevel fenomenologien for å ikke forstå materialitetens rolle i verden. Det (symbolske) språket har fått for stor plass som meningsbærende. Bennett og Barad forstår mening som praksiser hvor aktører alltid allerede er sammenfiltret, hvor all materialitet er aktører. Det meningsskapende er intra-aksjonen de har seg imellom hvor de svarer på hverandres handlinger gjennom respons-abilitet. Alle aktører intra-agerer med hverandre på et ontologisk plan, og er ikke meningsfulle utenfor slike sammenfiltringer. Materialiseringen av fenomenet skjer gjennom disse praksisene.

Jeg vil argumentere for at denne ontologien er mangelfull. Den kan ikke redegjøre tilstrekkelig for det epistemiske perspektivet og forholdet mellom menneske, språk og verden. Her kommer Merleau-Pontys kroppslige fenomenologi inn. Ifølge han vil nymaterialistenes forståelse av materialitet allerede være avhengig av en perseptuell, og menneskelig, strukturering. Det er kun gjennom strukturer at verden gir seg som meningsfull og først her kan man snakke om materialitet. Naturen blir forstått som kvalitativt forskjellige organiseringer, hvor mennesket står i en privilegert posisjon i lys av å være persiperende. Likevel blir ikke natur noe passivt i fenomenologien. Verden som kroppen utfolder seg i er en verden som allerede eksisterer og som setter rammer for den menneskelige erfaringen. Mening skapes i et dialektisk samspill mellom verden og det kroppslige subjektet. Slik evner Merleau-Ponty å redegjøre for det epistemiske perspektivet og forholdet mellom språk og materie.

Av den grunn argumenterer jeg imot Diana Cooles påstand om at Merleau-Ponty kan forstås som nymaterialist. Han etablerer en ny materialisme siden mening befinner seg i verden, i materie, men nødvendigheten av et persiperende subjekt gjør at man ikke kan forstå han som nymaterialist. Videre vil jeg argumentere for, i samsvar med Coole, at Merleau-Ponty fremsetter en ny humanisme som tar materie på alvor ved å forstå kroppens sårbarhet i møte med verden, og det er slik vi må forstå materialitet, natur og samspillet mellom verden og mennesket.

Introduction

The philosophy of new materialism wants to give an account of phenomena as a physical reality by articulating phenomena as ontological and relational. Phenomena make up the world, nature, and humans are part of a constellation of materiality. How are we to understand new materialistic claims and views on nature? Moreover, how can human nature be accounted for in this theoretical framework? I will explore this by looking into and comparing the theories of new materialism and phenomenology, explicitly going into Jane Bennett and Karen Barad as philosophers within the theory of new materialism and Maurice Merleau-Ponty as the advocate for phenomenology.

Their theories of phenomena are alternative answers to the problem of phenomena as theorised by modern philosophers. The problem of the phenomenon is a problem vital to some of these philosophers. To Kant, for example, this problem has been understood as a problem of how things in the world can appear to a subject. Questions that here arises is how one can understand the subject in relation to this world. Is the subject something outside the world or is the subject an integral part of the world of phenomena?

Descartes has been of huge influence on modern philosophy, amongst other things for taking into philosophy the human experience, and for proposing a metaphysical dualism. In *Meditations* (orig. pub. 1649), he elaborates a theory of how to be certain of the existence of the world. By knowing what we can be sure of, we can explain how the world is given. The only thing one cannot doubt, according to him, is the fact that there exists a thinking "I": "I am, I exist – that is certain; but for how long do I exist? For as long as I think," (Descartes, 1960, p. 84) – *res cogitans*. From this fundamental certainty, we will, according to him, be able to explain the existence of the world. Descartes finds the outer world to be a world of extended objects – *res extensa*. The extended matter he belies to be subjected to mechanistic laws. All extended matter, including objects, animals and even the human body is controlled by these mechanistic laws, which results in an absolute distinction between the matter and the mind-subject. We are thus presented with a mind-body dualism:

on the one hand I have a clear and distinct idea of myself in so far as I am only a thinking and not extended being, and since on the other hand I have a distinct idea of body in so far as it is only an extended being which does not think, it is certain that this "I"... is entirely ... distinct from my body and that it can (be or) exist without it, (Descartes, 1960, p. 132).

To understand matter would thus be to turn away from matter itself, since the mind is where one can make sense of the world. Meaning is created through internal reflection. To find truths about the world one must turn away from the world of senses. Only through this reflection can matter have a meaning.

Kant takes this problem further and wants to give an account for how it is possible to explain the appearance of things in the world without them being merely contents consciousness. Here Kant introduces categories. Kant understands these categories in addition to the a priori intuitions of space and time as the conditions for the experience of the world, and thus fundamental for out possibility of expressing something about the world. "if the senses represent to us something merely as it appears [phenomena], this something must also in itself be a thing, and an object for a non-sensible intuition [noumena]," (Kant, Critique of Pure Reason (1982), p. 266-267). Kant wants to explain how things can appear to a structuring subject. For things to appear, one is dependent on certain categories of the mind, certain structures of consciousness. Understanding is to Kant dependent on structuring by a consciousness, through the categories. To avoid the problem of the world as understood being merely a fact of the human consciousness, he believes there to be a separation between the things-as-they-appear and the things-in-themselves. We can have knowledge of the world as "appearing to us", but not of the things themselves because we have access to the sensible world through consciousness structuring phenomena but do not have access to the things outside the structure of consciousness, what Kant calls noumena. Phenomena to Kant is thus the things-as-they-appear to the subject, which means that it is both the passive intake of sensory experiences and an active process of making these experiences meaningful in terms of processes in consciousness through the categories and time and space.

Husserl, introducing the theory of phenomenology, continues the task of elaborating the appearance of phenomena. He suggests a system of correlation between the perceiver and the perceived – the subject and the object – which accounts for an interplay between perceiver and perceived. The correlative system, when understood in light of Husserl's theory of intentionality, suggests that the actual object in the world and the act of the perceiver are in correlation (Husserl, *Cartesian Meditations* (1999), p. 65). The world is not external and unreachable to the experience, it is not a noumenon, thus the phenomenon cannot be understood as internal processes of the mind or a world the subject does not have access to. Rather, it is the relation between subject and the actual world. "To claim that consciousness 'relates' itself to a transcendent object through its

immanent Sinn [...] is a problematic and, to be more precise, false way of speaking," (Husserl, Ms. B III 12 IV, 82a, cited in Zahavi, "Husserl's noema and the internalism-externalism debate" (2006), p. 49). When intentionality is understood as a correlative system, the object could not be any object, thus not in consciousness. The object is a specific object in the world, and the meaning of it is created through a concrete interaction between an object and a subject.

New Materialism and Phenomenology

The three theories just presented are dealing with the question of how phenomena can appear to a mind/consciousness/subject, with different answers regarding the relationship between human beings and the world. New materialism and the existential phenomenology are two other answers to this problem, and the answers are again very different from one another when it comes to explaining the materialisation of phenomena, the need for a structuring subject, the view on nature and the notion of meaning.

Both theories offer a theorisation of materiality, explaining phenomena as relations where matter plays a central role in this relation, not merely as passive for a consciousness to perceive, but as something more. Materiality is actively participating to the creation of meaning, not merely as passive objects for sense impressions, but as present and participating in creating meaningful phenomena. Thus, these theories differ from those of Descartes and Kant since the two latter did not focus on matter itself in explaining things as meaningful.

However, they are very different theories when it comes to the explanation of how phenomena emerge. On one side, Merleau-Ponty is offering an understanding of the emergence of phenomena based on human structuring. For him, structuring is related to a perceiving subject and phenomena are happens in the relation between the perceiving subject and the world. The notion of meaning is a result of the dialectical interactions between subject and world. To him, one can only talk about meaning in relation to human subjects because the meaning is created through gestures, language and with the other. It is by moving the body in the world that things can be explored and understood by being a body that is in the world perceiving from a specific place. This perceiver is an embodied subject, always in the world. On the other side, the new materialists Bennett and Barad offers a concept of phenomena as independent of human structuring. They replace the subject for a theory of actants, where actants are everything the world is made up of, both humans and nonhumans, to extend the notion of meaning from being subjected to the human

sphere to involve all matter in the world. They do not find meaning only as a human construction, instead, meaning is found in the relation between human and nonhuman actants.

While new materialists are trying to explain how the world is and that the world consists of nonhuman actants independent on any human actant, phenomenologists argue that what we have to explore is how the world appear to a perception. In this sense, he continues the project of modern philosophers trying to understand how phenomena appear. New materialists are not focused on the appearance of phenomena. Phenomena, they argue, are physical real and exist in the world prior to and independent of human actants.

For new materialists, everything is matter with equal ontological status, and so there is no distinction between humans and nonhumans on this level. Vital materialism "figures things as being more than mere objects, emphasising their powers of life, resistance, and even a kind of will," (Bennett, "The Force of Things" (2004), p. 360). This means that everything we understand as objects, organisms and humans are ontologically the same matter making up the world. Merleau-Ponty, in contrast, understands the world to consist of different levels of organisation that are not only quantitatively but also qualitatively different. He thus see the nature as discontinuous consisting of physical objects, vital organisms and human subjects. Humans are qualitatively different from organisms or objects, and since the world as meaningful is dependent on a perceiver; humans are in a privileged position.

What crystallises are three main problems that I will discuss and try to answer in the following chapters. The first issue is the materialisation of the phenomenon. How can we explain the appearance of phenomena? Is this dependent on structuring by humans or is the materialisation merely dependent on the intra-action between actants (human and nonhuman)? The second problem is how to understand nature. Is all nature made up of the same materiality ontologically and is impossible to divide into different actant on this level, as argued by new materialists, or should we rather conceive, with Merleau-Ponty, nature as discontinuous, where different levels of organisation have to be understood as fundamentally different? The third problem that arises is the possibility of explaining the nature of humans and the relation between humans and the world. How can we understand the role humans have in the world? Moreover, is this role possible to set apart from other roles in nature? Besides, with language having a symbolic aspect, how can we see this in relation to nature, the world and the appearance of phenomena?

I am going to argue that a theory of the corporeal subject is necessary in understanding the materialisation of phenomena as appearance. Moreover, I will argue that the notion of meaning presumes structuring by a subject. This I argue because only by taking the subjects as a starting point are we able to articulate how the world becomes meaningful to us from am epistemic perspective. What is missing in the new materialistic theory when it comes to elaborating the human role, is how we have access to the world and how the world is meaningful to us. As for the structuring of the world, language and the other are essential aspects. New materialists fail to recognise this. As I will argue, they have no theory for explaining the relation between language and the world. Their elaboration of material-discursive practices as boundary-drawing practises is not articulating language as a language between people, so they do not give a theory on the symbolic language and the relation between this and the world. Hence fails to present a proper account of the human perspective in epistemic terms, which is, accounting for the conditions of how things appear.

This is connected to their view on nature. New materialists are of the understanding that different actants have, to some degree, different agencies, but they do not articulate what it entails that different actants have agency in different ways. this is felt vague and unexplored, which means that the theory is (at best) underdeveloped. I will argue with Merleau-Ponty, that nature must be understood as discontinuous, hence things in nature are qualitatively different and should not be understood as the same seeing as one should not place things outside the meaningful context of which they are part – the phenomena. Besides, understanding actants as having different agencies is itself meaningful only within a *structure* that is in part accomplished by the perceiver.

This raises questions of to how to perceive the relation between Merleau-Ponty and the new materialists Bennett and Barad. A philosopher, Diana Coole, has claimed one can understand Merleau-Ponty as a new materialist on the basis that he proposed that meaning is articulated in the actual world, where matter is not passive but active. I will, however, argue that this is a misreading of his position because a vital part is that the world is in a dialectical relation to the perceiver. Nevertheless, I want to argue that Merleau-Ponty is constructing a new way of understanding matter, as a contrast to the theories of Descartes and Kant, and in that sense propose a "new" materialist philosophy, but where the embodied subject has a central role. As an alternative to the modern theory, he thus proposes a new humanism too, where humanism must be understood as

vulnerability, which is a more elaborated vulnerability, because of the articulation of the human epistemic point of view, than what new materialists can propose.

The Structure of the Dissertation

In the first chapter, I will present the theory of new materialism. Here I focus on what Bennett presents in *Vibrant Matter* (2010) and the theory Barad has in *Meeting the Universe Halfway* (2007), to understand the vital materialism and agential realism that is offered in new materialism. By using Bennett and Barad, I will elaborate the new materialistic understanding of materiality, the materialisation of phenomena, the re-understanding of the body as belonging to all actants, and their elaboration of the epistemic as material-discursive practices.

In the second chapter, the theory of phenomenology as Merleau-Ponty understands it will be presented. Because structure and the epistemic point of view is at the centre of what I want to argue, I have decided to focus on *the Structure of Behavior*¹ (orig. pub. 1942) and *Phenomenology of Perception* (orig. pub. 1945). In this chapter, I will elaborate on the phenomenological understanding of the materialisation of phenomena where the perceiver through the body is what enables us to speak of phenomena and meaning. It is also important here to look at what Merleau-Ponty means by nature and what he understands as different levels of complexity. Here, by taking the human body as a point of departure, he is able to elaborate the epistemic perspective and the relation between human and world.

In the third, and concluding, chapter I will take the discussion further. Here I begin by introducting Diana Coole and her claim that Merleau-Ponty should be regarded as a new materialist and argue against this based on what has been elaborated in the first and the second chapter. Here, the three problems that I mentioned above - the materialisation of the phenomenon, the understanding of nature and the epistemic perspective concentrating on what role the human has - becomes crucial for understanding why Merleau-Ponty is not a new materialist, and to argue that one must understand a new theory of materiality, not as the new materialists argue it, but rather as the theory of materialisation advocated by Merleau-Ponty.

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¹ The name of the book is in American English, that is why when referring to the book I write "behavior" while when I write it in the text elsewhere, I write "behaviour".

Chapter 1. The Problem of Phenomena 1

I. Introduction

New materialists present a theory providing an alternative to the philosophical problem of accounting for phenomena. They stand in contrast to previous explanations by not focusing on how a consciousness can relate to matter, but rather present a theory depicting matter itself, thus elaborating a theory where matter is taken seriously. Bennett's and Barad's theories are examples of this taking of matter seriously; theories where matter is in focus. In the article "Posthumanist Performativity" Barad explains the reason for turning to matter:

Language has been granted too much power. The linguistic turn, the semiotic turn, the interpretative turn, the cultural turn: it seems that at every turn lately every "thing"—even materiality—is turned into a matter of language or some other form of cultural representation. [...] Language matters. Discourse matters. Culture matters. There is an important sense in which the only thing that does not seem to matter anymore is matter. (Barad, "Posthumanist Performativity" (2003), p. 801)

Language, as a way the consciousness has access to the world, has been given focus for too long, and what has been lost is a theory of matter. Philosophy must turn to the question of matter itself. This turn to materiality is necessary to understand what matter is. According to Bennett, not even philosophical materialism has actually looked at matter (Bennett, *Vibrant Matter* (2010a), p. xvi). Materialism, for example the one proposed by Marx, stands in the context of "social structures" or "economical structures" and tells something about the material conditions for the human political and cultural sphere. Here, matter itself is not in focus; rather it is reduced to material circumstances for writing and talking about politics or culture. This is why the new theories on materialism calls themselves *new* materialists, going behind the sphere of the human world – to the matter itself. How, then, can one account for the relation between matter and language? What role has language within this framework? Moreover, how does matter matter to language in a theory where matter is taken seriously?

To go to the matter itself, new materialists establish a new ontology based on phenomena. An ontology of phenomena takes phenomena as the smallest units existing; nothing can be found or exist outside these units. This entail a closer intertwining of actants where all actants, both human and nonhuman are ontologically equal and entangled. In these phenomena of entanglement actants

are always intra-acting. These actants do not pre-exist the phenomena, rather, intra-action precedes the materialisation of "things". Thus, phenomena are physical realities. Intra-action renders possible the becoming of matter as meaningful and specific actants. Even though they admit different actants having different ways of expressing agency – a dog has a different possibility of action than a chair or a human – these actants do not exist prior to the entanglements.

Before elaborating this further it is worth spending some time on who the new materialists argue against specifically. As I mentioned in the Preface particularly Descartes and Kant are main targets of critique. Descartes, being an "ontologically dualist", as we saw in the introduction, makes a distinction between the inner and the outer world – *res cogitans* and *res extensa* (Coole, 2010, p. 93). The mind, res cogitans, is where he places agency, seeing as this is the sphere not governed by mechanistic laws, and this is the only realm where one can talk about will. The body, things, organisms and animals, on the other hand, are part of the mechanistic and deterministic realm, thus without any will or agency. Human beings are believed to be the only being with a mind, hence the only actant. The notion of phenomena coming out of this theory is a notion of phenomena as internal in the mind, whilst matter is understood as passive.

Kant, as mentioned in the introduction, tries to elaborate another theory focusing on how things can appear to us without them becoming merely objects of our minds. In this attempt he makes a distinction between phenomena (things-as-they-appear) and noumena (things-in-themselves) (Barad, *Meeting the Universe Halfway* (2007), p. 31). According to him, people only have access to things through the structures of consciousness, and the thing-in-itself is inaccessible. This does not necessarily mean that Kant thought the thing-for-us and the thing-in-itself were two different objects. Rather, people only have access to things through structures of consciousness. The phenomenon as things-as-they-appear is not able to account for matter.

New materialists give an alternative to these theories, that is, theories where phenomena are placed in the context of human structuring, which they propose a radical alternative to. A key aspect of the ontology of phenomena is to move the focus away from human situations and the belief that humans are the ones structuring phenomena and by means of a broader theory of agency, intraaction and becoming of the world, they can grasp the world as it is, not merely as it is given to us, and see the true participation and force of materialisation of matter. How are we to understand the materialisation of phenomena in this theoretical context? What does new materialists mean when they write about materiality, and what is the human role in all this? To what degree are they able to

answer to the Kantian problem of how things can appear to us? This chapter will elaborate on the becoming of matter and the self-constituting character matter has, and I want to show how they, even though they are able to elaborate the notion of matter and phenomena, to a certain degree lack a theory answering to the question of how phenomena can appear to humans.

II. The Ontological Status of Phenomena

Against the Kantian understanding of phenomena as epistemological dimensions, new materialists offer a theory where phenomena are ontologically rooted. What does it mean when they write that phenomena are ontological? How is this theory of phenomena as a fundamental reality articulated? And what are their argumentation built on so that they can rid themselves of the anthropocentrism that according to them haunts the whole philosophical tradition? As will be shown, constructing a new ontology is vital to give a new meaning to matter and the becoming of the world.

Phenomena are the smallest unit and the most fundamental level of existence. Bennett uses the term *assemblage*² to describe the way actants coexists and constitute phenomena. Assemblages are multiple bodies existing together in collections, not as inert or passive, but as "living, throbbing confederations," (Bennett, 2010a, p. 23). What is essential here is that this is not merely on an epistemological level as a way of articulating how actants are in relation to each other in the world, assemblages also operate on an ontological level.

Barad states this by to a larger degree use the notion of entanglement rather than assemblages when writing about phenomena. When using assemblage to explain the ontological status of phenomena one can be misunderstood to mean a "meeting" between already existing individual things. The new materialist project is more radical than that, according to Barad, and Barad demonstrates this by articulating a theory of entanglements. Entanglements entails a closer connection of actants to the degree that one actant is impossible to understand by separating it from other actants. There is a difference in nuance talking about actants coexisting in a phenomenon and that these actants are entangled, making up the phenomenon (Barad, 2007, p. 23). This is not to say that things and actants cannot be understood as separate things on an epistemological level, rather

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² The term "assemblage" is borrowed from Gilles Deleuze and Felix Guattari: "Assemblages are defined simultaneously by matters of expression that take on consistency independently of the form-substance relation; reverse causalities or "advanced" determinisms, decoded innate functions related to acts of discernment or election rather than to linked reactions; and molecular combinations that proceed by noncovalent bonding rather than by linear relations—in short, a new "pace" produced by the imbrication of the semiotic and the material," (Deleuze & Guattari, *A Thousand Plateaus* (1980), p. 336-337)

things become separate things through phenomena that are boundary-drawing practices (these boundary-drawing practices will be explained further down in this chapter), hence, it is more precise to use entanglements. The reason that Barad stresses the entanglement of subjects might be because her project is more radical than Bennett's in regards to elaborating a theory where humans are out of the picture.

The starting point for Barad's notion of entanglement is in the physics-philosophy of Niels Bohr. For Bohr, there is a close link between physics and philosophy. This is crucial for the theory Barad develops, and she believes philosophy should use physics because "philosophy without any understanding of the physical world can only be an exercise in making meaning about symbols and things that have no basis in the world," (Barad, 2007, p. 68). In physics the world is revealed and philosophical theories not accepting this will not be able to say something interesting about the world.³

Bohr was a quantum physicist associated with what is called the Copenhagen interpretation of quantum physics. Supporters of this interpretation do not believe in a deep quantum physics. "There is no quantum world. There is only an abstract quantum description. It is a mistake to think that it is the task of physics to find how nature is. Physics is about what we can say about nature," (Fjelland, "The "Copenhagen Interpretation" of Quantum Mechanics and Phenomenology" (2002), p. 57, quoted from Abraham Pais, *Niels Bohr's Time, in Physics, Philosophy and Polity* (1991), p. 426). To believe in a deep quantum physics is to believe that the findings one finds in this physical theory is the truth existing in the world itself. The role of the physicist is to uncover already existing physical structures of the world. Bohr did not believe in this. Rather, what he argues is that there is no reality to physics behind the observing. According to this view, what is explained is physics is the structures physicists apply to the world to describe and understand it. This resonates the Kantian phenomenon, where the world is a world out there while the structures, we have access to are the structures we place on the world.

³ With Barad's focus on quantum physics, it is necessary to point out that she is not a reductionist in any way (Barad, 2007, p. 24). Even though physics has to be the starting point for developing a philosophical theory, physics cannot explain the whole world. One cannot take the theory of atoms and how they intra-act and just transfer it to human societies. This is because the behaviour of atoms and that of humans are not the same. One cannot directly transfer what is known about physics and chemistry to human beings and the society they perform.

Quantum mechanics differed from classical physics in the sense that quantum mechanics is nondeterministic and take into account the human perspective (Fjelland, 2002, p. 54).⁴ To find this, Bohr starts in the laboratory setting with experiments consisting, according to him, of three participants: the observer, the observed and the apparatus that is used to measure what is being observed. Prior to Bohr it was normal to understand this setting as a setting of observer and observed. Bohr adds the used measurement to this. The combination of these three participants forms what Bohr understands as a phenomenon. The Bohrian phenomenon is merely existing on an epistemological level, in the laboratory setting.

As written above, Barad strives to be more radical in her project, and so she does not agree with a theory where these entanglements are merely existing on an epistemological level. She emphasises the fundamental level of existence that the phenomenon has. It is not only interaction between different entities, but entanglements make up the phenomena themselves:

phenomena do not merely mark the epistemological inseparability of observer and observed, or the result of measurements; rather, phenomena are ontological inseparability/entanglement of intra-acting "agencies." That is, phenomena are ontologically primitive relations – relations without preexisting relata (Barad, 2007, p. 139).

Accordingly, Barad's understanding of the entanglement differs from Bohr's understanding. For Barad, the mutual dependence between all actants is ontological. Her goal is to show the ontological implications of Bohr's theory, ontological implications he himself did not explore (Barad, 2007, p. 69).⁵

The ontological reality of the phenomenon undermines a Kantian understanding of the phenomenon: "phenomena do not refer merely to perception of the human mind; rather, phenomena are real physical entities or beings," (Barad, 2007, p. 129). Phenomena are physical realities. There are two problems with the Kantian phenomenon according to the new materialists. Firstly, the belief that phenomena are dependent on human consciousness and structuring. Phenomena are ontologically real, and therefore exists without the structuring by a consciousness. This critique

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⁴ It is impossible to have a clear distinction between the scientist and the object precepted. Heisenberg explains this: "...the traditional requirement of science ...permits a division of the world into subject and object (observer and observed)... This assumption is not permissible in atomic physics; the interaction between observer and object causes uncontrollable large changes in the system being observed, because of the discontinuous changes characteristic of the atomic process," (Heisenberg, Physikalische Prinzipien der Quantentheorie, 1958, p. 48. Quoted in Fjelland, 2002, p. 54).

⁵ She is not trying to argue that this is what Bohr himself wanted either, she merely uses his theory as a starting point that she precedes.

also targets a phenomenological understanding of the phenomenon since this theory also presupposes a consciousness structuring the world, as will be presented in the second chapter. Secondly, since phenomena are ontological facts, speaking of a thing-in-itself, outside a phenomenon, makes no sense – nothing exists outside a phenomenon (Barad, 2007, p. 429n18). Also, here it is made clear that the new materialistic understanding of phenomena differs from the phenomenological. According to Barad, Merleau-Ponty's theory of being-in-the-world indicate an understanding of the world as pre-existing the phenomena.

A Phenomenon is a primary dimension of that exists. Nothing is outside of a phenomenon and the phenomenon is the most primitive level of existence: "phenomena are the ontological inseparability of agentially intra-acting "components." That is, phenomena are ontologically primitive relations—relations without preexisting relata," (Barad, 2003, p. 815). There are no things (relata) outside the relations they exist in. Everything has to be understood by virtue of being in these constellations of actants that only exist within these constellations – as entangled – to the degree that it is impossible to talk about actants as something outside of the phenomena. A question that arises is how the phenomenon can be both a physical reality and an appearance. However, the problem of the materialisation of phenomena is to new materialists not the Kantian problem of how phenomena can appear to a consciousness, rather, the question is how these actants come to exist and how these actants must be understood as relations (phenomena) and not individually existing things. The human perspective is not relevant to this problem, according to the new materialists.

As we will see further down in this chapter, to understand a materialisation of phenomena we must understand the intra-action between actants, and only then can we explain why phenomena can be understood as physical realities rather than structures appearing to a subject. But first we have to establish what an actant is. Thus far, it has only been mentioned as something that both human and nonhumans can be. What defines something being an actant? How is the new materialistic articulation of agency different from traditional theories of agency?

III. Agency is More Than Human Agency

The notion of an actant is borrowed from Bruno Latour. Latour used the term to explain action made by someone or something where agency is something other than mere human action. The theory is in a larger constellation called the actant-network theory and this theory elaborates how all actants are in a relation to its environment. There is no distinction here between a human actant

and a nonhuman actant. An actant is something or someone that can receive and perform action given from or to others by a will or a force coming from the actant itself. Objects acting is not only as a re-action rooted in human activity. Because of this, the line between human and nonhuman action is dissolved, and all actants are alike ontologically (Myklebust, 2013, p. 15).

Focusing on the agency of actants, both Bennett and Barad write within the theory of posthumanism. The project for posthumanists of this type is exactly this, to give a wider account of what it is to act that does not only involve human agency but also nonhuman agency. "For materiality is always something more that "mere" matter: an excess, force, vitality, relationality, or difference that renders matter active, self-creative, productive, unpredictable," (Coole & Frost, "Introducing the New Materialisms" (2010), p. 9). With regard to this, how are we to understand the human and nonhuman actants and the role they play as actants making up the world? How is agency explained if not connected to human agency?

A point Bennett makes is that we do not in fact know what human agency is, or what it means when we say that humans have agency (Bennett, 2010a, p. 34). How, then, can we be sure nonhumans do not have agency? If we cannot exactly pin down what human agency consist of, how can we then deny nonhuman beings any form of agency? Thus, the task of the new materialists is to show that also nonhumans have agency.

To demonstrate the independence of nonhuman agency, the new materialists tries to find examples of situations where such agency has occurred. In *Vibrant Matter* Bennett seeks to explain this by finding situations where nonhuman actants produce effect without the assistance of human actants, starting with an observation where there is no human interaction involved. By observing things, one can witness their vitality, and this is what Bennett experienced by observing a scene of a glove, a dead rat, pollen from a tree, a bottle cap and a stick:

the capacity of these bodies was not restricted to a passive "intractability" but also included the ability to make things happen, to produce effect. When the materiality of the glove, the rat, the pollen, the bottle cap, and the stick started to shimmer and spark, it was in part because of the contingent tableau that they formed with each other, with the street, with the weather that morning, with me. (Bennett, 2010a, p. 5).

This observation points to the fact that things are not depended on human agency, rather, things create an effect of their own based on the constellation they are part on. Bennett explains the weather as sunny, and this fact creates another phenomenon than a cloudy day would. If the sun had not made the glove shine, maybe she would not have noticed the bottle cap next to it, and so

on, and in this sense, things have a vitality and a will to produce effect. A weakness with this example however, one could say, is the fact that Bennett was the one observing the interaction between the objects, and that even though they were part of a particular phenomenon, they did not produce any effect except making each other appear for Bennett. We will see how Merleau-Ponty articulate the same phenomenon in the second chapter.

Therefore, it is necessary to give another example where the will to produce effect with more certainty is given without a human observer. An example Bennett gives is garbage hills. A garbage hill is obviously an effect of human action, humans have created them after all, but what is interesting is what happens at the garbage hills after humans have made them. When a chair is thrown away it is not as if the chair is left in the same condition forever. On the contrary, the chair becomes part of an assemblage of actants.⁶ The garbage hills consist of organisms created in a milieu of thrown away things with the surrounding environment. The chair exists in a pile of other chairs, sofas and so on, and these things are changing over time, creating milieus where organisms thrive, and therefore one can say that the "garbage hills are alive," (Sullivan, *Meadowlands*, p. 96, quoted in Bennett, 2010a, p. 6). An example of the effects produced here is odour. Through changing, evolving and creating a milieu – a phenomenon – odour is produced. Thus, the milieu has become something human actants react to, for example by finding it unpleasant or disgusting.⁷

Here we can see some of the reason why Bennetts project seems less radical than that of Barad. She is being unclear when it comes to the ontological status of actants: "While Bennett claims that things are to be understood as relational as they are not stable and solid entities, but participate in dynamic and processual assemblages, she simultaneously regards them as 'things in themselves'," (Lemke, "An Alternative Model of Politics?" (2018), p. 11). When using examples as garbage hills it can give the expression that what she is writing about is how pre-existing things interact.

The examples mentioned are examples of the vitality of matter, the self-organising force that drives all actants. Bennett uses the term vitality continuing from Bergson and Hans Driesch, a term explaining life as something going beyond what can be explained by physical or chemical

⁷ Another well-known example is from Chaos theory and what is called *the butterfly effect* (Coole & Frost, 2010, p. 14). The butterfly effect refers to that the slightest movement in the wings of a butterfly can cause huge changes in the weather another place. A butterfly flapping its wings one place can lead to a hurricane another place.

⁶ This is for Bennett a critique of capitalism seeing as this ideology sees "things" as passive and "dead". Bennett, as a new materialist, understands capitalism to be anti-materialism, because the vitality of matter is forgotten and ignored (Bennett, 2010a, p. 5).

terms. Bergson was an evolutionist that believed the force driving the evolution was *élan vital*. "The task of *élan vital* is to shake awake that lazy bones of matter and insert into it a measure of surprise," (Bennett, 2010a, p. 78). Élan vital is a creative force, and, according to Bennett, Bergson believed this was natures spontaneity. Driesch called the force *entelechy*. What he meant by this, as stated by Bennett, was a drive coming from the structure of the organism's early life, and not "an open-ended impetus," (Bennett, 2010a, p. 69). Entelechy is a force from within the organism, that is active only in relation with a substance.

However, Bennett criticises these vitalists for their understanding of matter. Bennetts critique of both Bergson and Driesch is that they were unable to articulate a materialism to go with the vitalism. When it came to matter, both vitalists viewed it as mechanistic and deterministic (Bennett, 2010a, p. 64). That is why Driesch understood entelechy as coming from "the negative spaces of the machine model of nature, in the "gaps" in the "chain of strictly physico-chemical or mechanical events", (Bennett, 2010a, p. 70). The vitality can only be visible through negativity because it becomes visible where the mechanistic explanation of materiality falls short. For Bennett both understandings of vitalism are wrong because they both presume that matter is mechanical. As the case with garbage hills show, things can produce effect and therefore things cannot be mechanical (Bennett, 2010a, p. viii). Hence, her understanding of vitalism differs from both Bergson and Driesch and Bennett uses vitalism merely to describe the will or the force making actants self-organising.

More specifically, matter is understood as vital forces, and the term she uses to describe these forces is *thing-power*⁸: "Thing-power is a force exercised by that which is not specifically human (or even organic) upon humans. The dead rat stopped me in my tracks, as did the plastic cap and the wooden stick," (Bennett, 2004, p. 351). The thing-power is not only a negative force as the former vitalists believed, but a positive and creative force.

Bennett finds five distinct groups of actant which can be said to have thing-power (Bennett, 2010a, p. 4-17). First is what she calls *debris*, and this is the example given of garbage hills. The second she calls *nonorganic life*, and here she mentions the way nonorganic life is vibrant, by

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⁸ This is not to be confused with what Barad calls *thingification*. Thingification is what Barad calls the turning of relata into things (Barad, 2003, p. 812). This is the theory where relata/things is believed to exist on a metaphysical level and is something Barad is against. As Bennett uses thing-power as a positive, vital force of nonhuman objects, the thingification Barad writes about will be defines as relatafication, to not make any confusion.

mentioning the dead rat, the pollen, the bottle cap etc. Third, she mentions *legal actants*, and the example is an evidence in a trial. In a trial, things can become vital in proving guilt or innocence, and in this sense, a glove with skin cells, in addition to other things and people, becomes vital (both as object and information). The fourth example of thing-power given is *minerals*. Minerals have been an important driving force in evolution, for example the creation of bone:

. . . soft tissue (gels and aerosols, muscle and nerve) reigned supreme until 5000 million years ago. At that point, some of the conglomerations of fleshy matter-energy that made up life underwent a sudden *mineralization*, and a new material for constructing living creatures emerge: bone. It is almost as if the mineral world that had served as a substratum for the emergence of biological creatures was reasserting itself. (Bennett, 2004, p. 360, citing De Landa, *A Thousand Years of Nonlinear History* (1997), p. 26)

Here the bone shows itself as a vital matter emerging as a phenomenon. This is materialisation of a phenomenon where the matter itself is the central force for the becoming, independent of human organisation – the bones are actants of self-organisation.

The fifth and last thing-power mentioned is a *negative* force, which is not a resisting force, but, as Driesch also thought, a force appearing only as a lack. According to Bennett, it can be seen in relation to Adorno's notion of nonidentity. "For Adorno this gap is ineradicable, and the most that can be said with confidence about the thing is that it eludes capture by the concept, that there is always a "nonidentity" between it and any representation," (Bennett, 2010a, p. 13). Bennett understands the nonidentity in Adorno's theory as exactly the point where the thing escapes identification and conceptualisation. This thing-power become explicit in what cannot be identified. What is special about this thing-power (like actants as legal actants, but to a larger degree) is that she is writing about conceptualisation, which means that this thing-power is only visible in relation to humans, and as we will see in the next chapter, this is to some degree in line with the theory Merleau-Ponty put forward.

The examples of ways different actants have agency supports a new materialism in showing that all matter is vital. Matter is vital – has a creative force – and is independent of human action. In addition, these vital powers affect human beings, "forcing" them (us) to act. Thus, agency is much more than human agency. Things are not merely passive or "dead" things, and they do not just react to human action, they have a thing-force of their own, and to be aware of this is not only essential to understand nature, but also to understand human behaviour and practices. When

accepting this one also has to accept that people are not in a privileged position ontologically but are rather one type of actants among others. Not only that, humans themselves exists of actants.

By explaining agency as a not only human force, new materialists offer an understanding of matter, nature and humans as ontologically equal. All are actants on the same basis. Thus, we cannot understand humans as having a privileged role when it comes to the materialisation of phenomena. Even though all thing-actants are independent of human action, it is crucial not to think actants, human and nonhuman, are independent or can act alone, because, as is mentioned in the beginning of this chapter, the relational aspect is crucial for understanding the world as constituted by phenomena, and to understand how separate actants come into being. But to understand how the different actant make up the phenomena, we have to look into how the materialisation of phenomena happens. Which is through entanglements produced by intra-actions.

IV. Intra-action Constituting Phenomena as Physical Realities

The phenomenon is an entangled assemblage of bodies of actants. With a theory of intra-action, we will be able to answer the question raised above on how we can understand the materialisation of phenomena. Only by explaining intra-action can we understand phenomena as real without turning to the question of how phenomena appear to humans. Matter – actants, both human and nonhuman – exists in an intertwined assemblage, and actants are always in such entanglements. "[A]n actant never really acts alone. Its efficacy or agency always depends on the collaboration, cooperation, or interactive interference of many bodies and forces," (Bennett, 2010a, p. 21). Actants' use of force to produce effect only happens within I field of actants.

This collaboration is what new materialists call *intra-action*. Different actants act with and against each other, and it is through this something meaningful is created. How the notion of meaning is established will be elaborated further down. First, we have to look at how intra-actions make phenomena physical realities. What does intra-action explain about the materialisation of phenomena? Moreover, what does this tell us about nature and human nature?

Barad uses the term as a substitute for *interacting* (Barad, 2007, p. 214). This is not to be confused with separate things running into each other (which is the same critique she has of using "assemblages" to describe the intra-action of actants), but rather to point out the entanglement. It is through intra-action an actant shows its will to produce something, to have practices. Intra-action is the sign of a thing's vitality – its will to create something. As mentioned, Bennett understands

this vitality as the force driving an organism forth. This force is visible taking an embryo as example. In the process where a fertilized egg becomes a living human, there is something making this process happen. This "something" is the entelechy of the embryo – its thing-power (Bennett, "A Vitalist Stopover on the Way to a New Materialism" (2010b), p. 51). Entelechy is not some sort of mechanical process or an energy. Rather it is a force bringing forth life in the embryo. If this is to be understood as a vitalism explaining the open-ended force of things, where the actant never fully can be exhausted, then this is a vitalism Bennett agrees with, and a vitalism that could give room for the type of matter new materialists establishes (Bennett, 2010b, p. 63). A key point here is also that the actant is entangled, a focus Driesch did not seem to have according to Bennett.

In addition, taking the embryo as an example, the reality of intra-action is emphasised. It is impossible for the embryo to live only through a self-driven force. What is also a part of this assemblage is the mother, what she eats and drinks, what activities she does and her milieu. All these things play a part, are entangled and have an effect on each other.

Another interesting example is food. Scientific studies indicate that not only can food change the size of the body, different diets also alter the cognitive dispositions and mood (Bennett, 2010a, 40-42). Different fat acids can change mood and patterns of action. A study done on a group of prisoners revealed that regular intake of omega-3 fatty acids lowered the risk for them doing more offences. Another study has shown that school children are able to focus more, given this type of fat. Other types of fat, at that one finds in potato chips, can weaken the mood and cognitive ability. Bennett points out that this should not be taken as if there is a necessity between one type of dietary and one type of behaviour; rather this is pointing to the fact that there is an intra-action and that "particular fats, acting in different ways in different bodies, and with different intensities even within the same body at different times, may produce patterns of effects, though not in ways that are fully predictable" (Bennett, 2010a, 41-42). Fat acids are part of the assemblage that constitute the human body, and these acids entangled with exercise and the overall milieu are all the components in this body. Hence, even humans are not only humans.

To understand more closely the intra-action happening in a phenomenon, Barad evolves a theory of apparatuses, again with a starting point in Bohr's theory of measurement. Focusing on the laboratory setting, Bohr created a theory for the role of apparatuses in scientific experiments. Instead of understanding an apparatus as passive, Bohr was one of the first to point out the fact that different apparatuses would give different experiments, thus different results. Not only is it

important to understand apparatuses as partaking, apparatuses make up the meaning-forming part of an experiment, according to him.

The wave-particle duality paradox is an example of this (Barad, 2007, p. 29). What Bohr experienced in the wave-particle experiment was that electrons would behave as particles using one set of apparatuses and as waves using another set of apparatuses. The phenomenon changes when components of the phenomenon is changed or exchanged for something else, thus "the apparatus must be understood as part of what is being described," (Barad, 2007, p. 118), as part of the phenomena, and so a phenomenon is the relation between an apparatus and an object. As mentioned, in researching the way quantum entities behave, theorists within the field of quantum mechanics observed that sometimes these entities behave as particles and other times waves. 9 In classical physics the theory is that an entity either has the form of a particle or a wave. Bohr came to the conclusion that one type of apparatus will show the entities are particles, and another apparatus will give the results of waves. What comes out of this paradox is that the duality of particle-wave is dependent upon the apparatuses used, and the case where the quantum entity is shown as a particle and the case where is behaves as a wave are two mutually exclusive phenomena.

But, as mentioned earlier, Bohr's theory of apparatuses does not overcome the anthropocentrism needed for taking matter seriously. "One pronounced limitation of Bohr's account ... is that the human is thereby cemented into the very foundation of the quantum theory," (Barad, 2007, p. 143). The human is to him what makes measurement possible at all. Because he has a theory where the observer is one of three essential parts in the model, he puts humans in the centre. His focus on the scientific practice of testing in a laboratory causes his analysis of apparatuses to be about enlightening the scientist, so the scientist can be aware of the observer-observed-apparatus structure, and this also means having the (human) scientist in focus.

To reconstruct the theory of apparatus so that it fits the new materialistic project, the notion of apparatus has to be comprehended, not merely in the context of a laboratory, but also applicable to all actants. Apparatuses are what enables the understanding of concepts. Only by means of apparatuses can one determine "objects" that make up phenomena (Barad, 2007, p. 127-128). It is

⁹ There is a difference between waves and particles. «Classically speaking, particles are material entities, and each particle occupies a point in space at a given moment of time. Waves, on the other hand, are not things per se; rather, they are disturbances (which cannot be localized to a point) that propagate in a medium (like water) or as oscillating fields (like electromagnetic waves, the most familiar example being light). Unlike particles, waves can overlap at the same point in space,» (Barad, 2007, p. 76). Physics used to believe that an entity was either a particle or a wave, and that there was no overlapping between these different forms of existence.

by using an apparatus that one can measure and find boundaries of the phenomena. This is central because there are instances where using one apparatus to measure one thing exclude the possibility of measuring another thing with the same apparatus. Bohr finds this when trying to measure position or momentum (Barad, 2007, p. 111). To measure position is to find where on a surface a photon (for example) hits the surface, to measure the momentum is to find with what force the photon hits. To find these two things, one has to use apparatuses that are mutually exclusive. Finding the position demands an apparatus that stands still, whilst for finding the momentum one needs an apparatus that can move, so the force of the photon is shown. When measuring there is always an aspect of choice involved. The choices made have an impact of the meaning that the measuring has. Thus, the apparatuses are partaking and vital for defining the boundaries that will determine the "objects" of the phenomenon (Barad, 2007, p. 115). Since the scientist is choosing what apparatus is used, he/she also decides that is to be measured and is some sense what the outcome will be. Taking this further, as Barad thinks is necessary, what this example with apparatuses demonstrate is the intra-action that phenomena are outcomes of. The apparatus intraact with the observer and what is observed, and in this entanglement the phenomena is defines through the boundaries that becomes defined.

What the theory of apparatuses explain is that because apparatuses – actants – can change phenomena it must be possible to talk about nonhuman agency (as pointed out by Bennett in the examples of the garbage hills), but only through intra-action (Barad, 2007, p. 128). The phenomenon is a certain intra-action between the apparatus and what it measures, an intra-action where both participants in the phenomenon come about through the intra-action.

To underline the fact that this is not a Bohrian understanding of phenomena, where humans have the control over what apparatuses that are chosen, we can go back to thing-power. The intraaction is driven by the thing-power, but this intra-action is not only in the thing itself, as the vitalist Driesch indicates. There is also not a force or thing-power that is naturally stronger than any of the other powers, no human agency for example that control the assemblage/entanglement. Intraactions of apparatuses are not controlled by a concrete instance which is naturally above the other. (Bennett, 2010a, p. 24). However, this is not to say that different things are participating in the intra-action in the same way, as mentioned above.

Humans, for example, can experience themselves as forming intentions and as standing apart from their actions to reflect on the latter. But even here it may be relevant to note the

extent to which intentional reflexivity is also a product of the interplay of human and nonhuman forces, (Bennett, 2010a, p. 31).

Different things contribute differently to the phenomenon and even the same thing can in one phenomenon act in one way and in another phenomenon act in another way. The point is, rather, that every actant are equal in the sense that all actants have the same ontological status and can contribute with the same will as every other actant.

Both the starting point in a new form for vitalism and in a theory of apparatuses emphasise the fundamentality of intra-action and how this is the way to understand materialisation of things. Things do not exist prior to the phenomena, rather they are only understood through the phenomena they are intra-acting in. Since the intra-action precede the things themselves, the phenomenon must be understood as ontological, and not secondary to things. Hence, the question of how phenomena are physical realities is now to be understood through intra-action – the materialisation of the phenomena happens through a relational entanglement, exchange and intra-action where all actants participate equally. What follows from this is a reconfiguration of space and time and a new understanding of what causality means.

V. Intra-Action Make Up Spacetime and Causality

Nothing exists prior to the intra-action. And to understand the ontological aspect of this even more it is relevant to take a look at how new materialists reconstruct the whole structure of space and time. Time, space and even matter itself is only exist because of intra-action (Barad, 2007, p. 74). Thus, intra-actions are central to the making of space and time itself. Time becomes something as the intra-activity happens and moves forward and space becomes something through materialisation of the world and the things and phenomena constituting the world: "it is the intraplay of continuity and discontinuity, determinacy and indeterminacy, possibility and impossibility that constitutes the differential spacetimematterings of the world," (Barad, 2007, p. 182). Time and space are not a fixed structure where things exist and things are not in a world, they make up the world; matter does not exist in a world, rather matter make up the world. Time and space must be understood as always changing with the phenomena that is changing through intra-action and is changing through the activity caused by intra-action. It is not timeless categories structuring the world, but time and space is structured by the becoming of things in phenomena.

Time and space should and cannot be understood as the structure of the world being the origin for human experience, neither should it be understood as a ground for the phenomenon, as believed by Kant. Rather, the phenomenon is the starting point for spacetime itself, and time and space can only be understood through the phenomenon (Barad, 2007, p. 140). The world is not structured through space and time, and the world is not something taking place in space and time, but rather the world make up the spacetime. New materialists criticise Kant for understanding time and space as a priori intuitions (Bennett, 2010a, p. 117). Two of these categories are time and space. For Kant, time and space is a way the perception structures the world, and these categories must, according to him, come before our experience of objects. To illustrate this, we can think of a bike. When trying to explain our perception of a bike we have to imagine a space and a time that this bike would appear to us. Because the time and place are so fundamental to explain something Kant believes them to be timeless structures that makes it possible to perceive objects. But this is not the case according to Bennett and Barad.

Because materiality always is a becoming of something meaningful through intra-action, time and space must also be understood through becoming. "The world is an open process of mattering through which mattering itself acquires meaning and form through the realization of different agential possibilities. Temporality and spatiality emerge in the processual historicity," (Barad, 2007, p. 141). Time and space are not universal or "timeless" entities, but rather a part of the historical processes of the world.

This also implies a reconfiguration of causal relations. The new materialists understanding of causality points out the entanglement of actants within a phenomenon, thus one cannot think of causal relations as isolated interactions (Barad, 2007, p. 175-176). The world is too complex to be captured in the easy model of the classical understanding of causality. The way it is usually understood is that one thing at a point in spacetime touches another thing at a point in spacetime, so the first thing causes the other to have an effect. A well-known example here is one billiard ball rolling into another where there is a clear cause and a clear effect. But the world complexity of intra-acting actants entangled together cannot be explained by this model. Rather, phenomena have to be understood as whole constellations of intra-acting agencies unable to divide into smaller units.

How, then, are we to understand the becoming of specific things? How can we define the boundaries that enables the world to consist of things understood as specific actants, boundaries making it possible for Bennett to write about actants as having different forms of agencies so that

there is a distinction between legal actants and minerals, for example? To find an answer to this we have to turn to the new materialistic theory of material-discursive practices as boundary-drawing practices. Only by elaborating these practices can we establish how the world, consisting of phenomena, can become meaningful in an epistemic perspective.

VI. The Becoming of the World

As we have seen so far, the phenomenon is materialised through the intra-activity of the world which is the becoming of the world. In this way phenomena are different ways matter can matter. Phenomena produces patterns through intra-activity. This does not require human intra-action, as we have seen, rather it is through these practices that boundaries between human and nonhuman actants are defined and constituted (Barad, 2007, p. 140). Now it is time to elaborate mow these patterns of meaning become meaningful, accordingly, how the epistemic perspective is elaborated in new materialism through what is called material-discursive practices. How are they articulating the epistemological point of view? Are they able to articulate the relation between human nature, language and matter?

Because the phenomenon is ontologically real, relata, or "things", can only be understood based on this, and what makes things differ from each other happens between different intraactions. This means that relata has to be understood as "*exteriority-within-phenomena*" (Barad, 2007, p. 140), that things crystallize as something specific – a specific thing or object – in being a part of a phenomenon.

Things crystallize as something specific through the becoming of the world. The world is always becoming, and this is driven by forces coming from matter. This force causes "an active becoming, a creative not-quite-human force capable of producing the new ... This vital materiality congeals into bodies, bodies that seek to persevere or prolong their run," (Bennett, 2010a, p. 118). Through becoming, different materiality are constituted as something out of phenomena, and this is a vital force able to produce something, and this is things will to produce an effect, as was demonstrated with garbage hills living on, not as dead matter, but as vital matter. It is in the becoming of the world that actants form through the entanglement of intra-actions that form the bodies in a way that is meaningful for them (Coole & Frost, 2010, p. 10).

To explain how objects are becoming, the new materialists use the conception of *performativity* from Butler.¹⁰ Butler uses this notion to explain how human identity becomes manifest (Barad, 2007, p. 57). The subject is becoming through a process of action, always inbetween the norm and the possibility to act against these norms and in that create a disturbance or a shift.

From a place of science, the performativity sheds light on the active role of the scientist: "A performative understanding of scientific practices, for example, takes account of the fact that knowing does not come from standing at a distance and representing but rather from *a direct material engagement with the world*," (Barad, 2007, p. 49). Because of this, Barad thinks it is possible to argue for Bohr's philosophy advocating a kind of "proto-performativity" that explains the scientific practice not as creating representations of things, rather these practices are about interfering with the phenomenon to grasp them (Barad, 2007, p. 54). As a proto-performativity, Bohr's philosophy is not about the existence of things as metaphysical entities, things do not have pre-existing boundaries or attributes (Barad, 2007, p. 138). Rather, things become meaningful through interaction. However, this is in some areas very different to the new materialistic project, since Bohr had this understanding of the world because he placed humans in the focus of the phenomenon.

What differs a new materialist way of using performativity from that of Butler is that the latter focuses on human practices and human relations, whilst the former extend this to and use it to explain nonhuman agency and meaning-making practices. Performativity is given as always moving, but not as linear:

The dynamics of mattering are nonlinear: the specific nature of the material configuration of the apparatuses of bodily production, which are themselves phenomena in the process of materialization, matters to the materialization of the specific phenomena of which they are

¹⁰For Butler, performativity is explaining the sphere of sex and gender: "within the inherited discourse of the metaphysics of substance, gender proves to be performative – that is, constituting the identity it is purported to be. In this sense, gender is always a doing, though not a doing by a subject who might be said to preexist the deed," (Butler, *Gender Trouble* (2007), p. 34).

¹¹ Barad finds Bohr's quantum physics as the optimal place for exploring the relation between the "natural" world and the "cultural" world because what Bohr's theory teaches most importantly is that "we are a part of that nature that we seek to understand," and that "Bohr argues that scientific practices must therefore be understood as interactions among component parts if nature and that our ability to understand the world hinges on our taking account of that fact that our knowledge-making practices are social-material enactments that contribute to, and are a part of, the phenomena we describe," (Barad, 2007, p. 26). Bohr advocates that one has to understand scientific practices are a part of social and material practices.

a part, which matters to the ongoing materialization of the world in its intra-active becoming, which makes a difference in subsequent patterns of mattering, and so on; that is, matter is enfolded into itself in its ongoing materialization. (Barad, 2007, p. 180).

The production of bodies are processes of materialisation that happens in the performativity. Through complex bodily productions in a web of material-discursive practices one can speak of matter becoming something that matter – something meaningful.

Intra-action and phenomena must be understood through these performative practices. This is an alternative to representationalism because instead of focusing of whether we can be sure that there is coincidence between depiction and the thing being depicted, a more performative explanation rather focuses on understanding action and practices (Barad, 2007, p. 28). Representationalism is the belief that there is separation between representation and the thing being represented: "The idea that being exist as individuals with inherent attributes, anterior to their representation, is a metaphysical presupposition that underlies the belief in political, linguistic, and epistemological form of representation," (Barad, 2007, p. 46), it is the conviction that there is an individual, subject or object, outside the representation of it, and that this gap is ontological. Because of this, representationalism is unable to grasp the whole reality, since something always has to be put in brackets.

When objects are explained this way, it cannot take in the whole situation, since a situation always is a web of intra-acting and entanglement, a web of performing actants, and this aspect is veiled in representationalism. For representationalism, the separation is fundamental, but this is not how Barad thinks the relation between referent and referred should be conceptualised because it cannot capture the whole aspect of the materialisation of phenomena. Rather than understanding there two aspects as separated, or even to sides of the same coin, they should be understood as phenomena.

Rather, what is proposed is a theory of agential realism that is able to elaboration the entangling where there is no separation but where meaning is performative acts of material-discursive practices: "agential realism rejects the notion of a correspondence relation between words and things and offers instead a causal explanation of how discursive practices are related to material phenomena," (Barad, 2007, p. 44-45). It is not about an external relation between words and things, but an entangling that forms and changes all the actants of this relationship so that words and matter can become meaningful. Contrary to representationalism, agential realism believes the individual actants only becomes meaningful through the discursive-material relation.

To grasp the essence of material-discursive practices it is helpful to separately look at the two words making up the notion. These parts are the *material* and the *discursive*. The discursive explains the framework for which something can be said, and that what is being said is meaningful and makes sense. Discursive practices are for new materialists not to be regarded as a concept of language or linked to humans at all:

Discursive practices are not speech acts, linguistic representations, or even linguistic performances, bearing some unspecified relationship to material practices. Discursive practices are not anthropomorphic placeholders for the projected agency of individual subjects, culture, or language. Indeed, they are not human-based practices, (Barad, 2007, p. 149).

Rather than being outcome of human practices, they are part of what produces the actants of practices describing the notion of meaning. Discursive practices are what makes up the *conditions* for human knowledge practices (Barad, 2003, p. 819). The discursive part of "material-discursive practices" are the way that matter is (re)configured and by that become something specific. It is in these discursive practices that different matter created by boundaries and properties are understood and acted upon differently (Barad, 2007, p. 148-149). Discursive practices themselves are different intra-actions creating determinate and indeterminate things within phenomena.

This demonstrates the citation in the introduction of this chapter: "language has been granted too much power,". What discursive practices are can be described as the way cultural and historical conditions that sets the framework for knowledge and meaning-making practices such as writing or speaking, and so what we have to explore to understand the world are these practices that are prior to language. In this sense, matter matter to language as the fundamental ground for what language can be built on.

The other part of the material-discursive notion is materiality. Matter is vital. In this sense, the new materialism finds an error with the traditional materialism. The traditional materialism, the type of materialism Marx advocates for, look at the material conditions to explain meaningful structures, but here matter stays as passive things. This materiality has been dominant, but still focuses on human action and behaviour, and not actually on the things themselves; the focus is to

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¹² Foucault is one philosopher focusing on the discursive. In "The Discourse on Language" Foucault writes that "in every society the production of discourse is at once controlled, selected, organised and redistributed according to a certain number of procedures, whose role is to avert its powers and its dangers, to cope with chance events, to evade its ponderous, awesome materiality," (Foucault, 1972, p. 216).

understand structures of human behaviour (Bennett, 2010a, p. xvi). Rather, matter must be understood through intra-action. Matter is the dynamic process that constitutes a phenomenon, and this dynamic intra-acting put forward by the vibrant matter is the matter that enables meaningful enactments (Barad, 2007, p. 208).

Together, discursive and material practices comprise meaningful acts constituting things as specific things. Both these notions become meaningful through the materialisation of phenomena where intra-actions become specific "things" and apparatuses (Barad, 2007, p. 244).

It is in these choreographies of becoming that we find cosmic forces assembling and disintegrating to forge more or less enduring patterns that may provisionally exhibit internally coherent, efficacious organization: objects forming and emerging within relational fields, bodies composing their natural environment in ways that are corporeally meaningful for them, and subjectivities being constituted as open series of capacities or potencies that emerge hazardously and ambiguously within a multitude of organic and social processes, (Coole & Frost, 2010, p. 10).

Meaning cannot be thought of as something universal or objective because it is a process of intraaction. Instead of being understood as something belonging to the sphere of humans, meaning is an ongoing performativity and becoming of the world. It is through specific material-discursive practices that things are given as intelligible or unintelligible and these practices are always on the way of becoming, never fixed or static. (Barad, 2007, p. 150). Things become specific things within the phenomenon they are a part of, and boundaries between things are created in the phenomenon.

However, on another note, even though things become meaningful by boundary-making practices, because the world is always becoming, things and phenomena are never fixed or can be reduced to absolute comprehensible entities. This becomes evident with what Bennett calls *shi*. Shi is a self-organising force within a phenomenon, coming from the things and their dispositions (Bennett, 2010a, 35). It is a collective force that is created by the different parts of the phenomenon, but the different parts of the phenomenon cannot be reduced to the collective force. The force, shi, is in form of a negative power in that it cannot be clearly articulated, and this is the ambiguous aspect of the new materialist theory of the phenomenon. It is created in the intra-action between the actants involved, thus shi is a "dynamic force" that is the outcome of a specific intra-action. Shi is based on the phenomenon as a whole and is not about one central drive. There is always something escaping the organisation of the phenomena, as there is always a nonidentical thing-power escaping human conceptualisation.

To possess knowledge in a world made up of material-discursive practices is not merely to posit conceptions of things, however. Knowledge is about responding in a meaningful way to materiality. "Knowing entails differential responsiveness and accountability as part of a network of performances. Knowing is not a bounded or closed practice but an ongoing performance of the world," (Barad, 2007, p. 149). As such, the new materialist way of understanding knowledge is the same as Bohr's understanding of scientific practices, where the scientist must understand herself as partaking and responding to the experiment. Because this is what knowledge is, being able to respond and be held accountable to a situation. Donna Haraway explains this well in the context of the use of animals in the laboratory setting:

Response, of course, grows with the capacity to respond, that is, responsibility. Such a capacity can be shaped only in and for multidirectional relationships, in which always more than one responsive entity is in the process of becoming. That means that human beings are not uniquely obligated to and gifted with responsibility; animals as workers in labs, animals in all their worlds, are response-able in the same sense as people are; that is, responsibility is a relationship crafted in intra-action through which entities, subjects and objects, come into being. (Haraway, *When Species Meet* (2008), p. 71)

Haraway makes this even clearer by writing responsible as response-able. Knowledge is the art of always being able to respond to a world given in a certain way at a certain time¹³, responding to the way things are given as meaningful. This is not restricted to human activity, rather, all actants can act in such a way that they give a meaningful response as intra-acting within a phenomenon.

VII. Conclusion

Material-discursive practices enable responsiveness with all actants of a phenomenon. By reworking the understanding of meaningful practices with a theory of performativity Bennett and Barad shows a new way of understanding the epistemic point of view. The world emerges through boundary drawing practices – entanglements of material and discursive practices – which enables actants to become specific actants. From this entanglement of the discursive and the material, what

¹³ This responsiveness Donna Haraway uses to demonstrate the legitimacy of using animals in laboratory experiments, as long as a schematic approach is not used. Here, through intra-activity, one is responsible for the lab rat because both are equal actants in creating the phenomenon. The animal becomes the Other that the scientist is responsible for, and we can see how this is practices when we look at the way animals are taken care of when not used in an experiment. This understanding of the rat sees the rat as an Other that partakes in a work, and this partaking makes it worthy of being taken into account. As long as one knows its responsibility towards the other, rat or human, it is, according to Haraway, justifiable to use animals in scientific experimentation. (Haraway, When Species Meet, Chapter 3.).

is meaningful can be explored, but also what is meaningful or to possess knowledge means something different for new materialists. Knowledge is linked to the possibility to response in a meaningful way, a meaningful way for the actant acting.

This is the epistemological outcome of the materialisation of phenomena which happens through intra-action. New materialism leaves us with a theory reworking the concepts of ontology, materialism, causality and agency based on the materialisation of phenomena. Instead of being sure of that the most fundamental level consists of specific things that have an existence on its own, they present an ontology where phenomena are the smallest units, where no actants can be regarded as existing outside phenomena. By using a notion of entanglement, this is concretised and the ontological level these phenomena work on is emphasised. And what are these actants? As has been demonstrated, actants are all matter: inorganic matter, organic matter and human beings, where no being is of higher hierarchical level than any other. On an ontological level actants are entangled in a web of agency where all actants are ontologically equal, and the intra-action between them is more fundamental than the actants themselves as specific entities. With a theory of intra-action, the whole understanding of space, time and causality is reworked, and what comes out of it is a nonlinear causality and a spacetime that is constructed through the becoming of the world, not existing as a priori actualities.

Matter becomes important again by turning towards the world of vital intra-action and not the human consciousness. This stands in great contrast to Descartes and Kant because both these philosophers propose a theory where matter is less important, where the notion of meaning is attributed to the mind. Phenomena are ontological, hence there is not possible to make a distinction between phenomena and noumena as Kant does. This is merely to end up in anthropocentrism. We cannot understand matter as merely a passive world given to an inner consciousness; matter must be grasped as actively partaking in making up the world as meaningful, completely independent of subjects in the materialisation of the world.

By focusing on materiality, and not the human perspective, they have made a theory that deconstruct the role language plays in philosophy of explaining the world. Language is not the main access to the world; it is rather unimportant or at least secondary to matter itself. It is not through language that the world is materialised, but through the material-discursive practices having nothing to do with the human language. However, what is missing in new materialism is a way to explain how language matter to matter, what the relation between matter and language is.

Because this is missing, a thorough elaboration of how humans are in the world is missing, and they are not able to give an extensive analysis of in what way humans have access to the world.

Something is also left uncertain in regard to understanding thing-power. On one hand the force of things is explained as the way actants have agency independently from human intervention, but at the same time it is closely linked up to a human actants. If we look back at the different ways actants show their agency, some, like the example with minerals is taken as completely outside the human sphere seeing as the examples are the making of bones. Here, Bennett mentions bones in relation to humans, but the making of bones themselves is independent of human agency. Other examples of agency are closely linked to humans – as the nonidentical, negative force of things. This is elaborated as nonhuman actants being independent from human actants, but where the negative force itself only can be understood in relation to a human actant. Bennett explains it as it is the force that escapes human conception, hence a force given in relation to human actants.

This can be the consequence of new materialists not elaborating the theory of intra-activity enough. They explain the notion of intra-activity, but lack a thorough explanation of precisely how these intra-actions work within and between different actants.

To explain the epistemic perspective is necessary to be able to explain how phenomena can appear to us, even though they might exist as physical realities. New materialists are not able to do this sufficiently, and so, we must how turn to another theory, Merleau-Ponty's phenomenology, to see if we can find a more acceptable answer to the problem of phenomena.

Chapter 2: The Problem of Phenomena 2

I. Introduction

In the previous chapter, the new materialists proposed new understandings of phenomena, agency, materiality and causality. Against Kant, they argue that phenomena are not to be understood as the appearance of things to consciousness, where consciousness processes and apply a notion of meaning to the phenomena, but as a physical reality that make up the world itself. Here, the notion of meaning is to be understood as performative practices that happens through the ontological intraactions, where actants crystallise as specific actants only as being part of nonlinear, intra-active entanglements. Meaning as the epistemological articulation of phenomena is not connected to the human, not connected to language, but rather become through material-discursive practices. Thus, the materialisation of phenomena is the outcome of relational constellations between all the actants that make up the world. In this theory there is ontologically no distinction between different actants, so that "things", animals and humans are all actants to the same degree. This is a deconstruction of the human perspective. No being, human or nonhuman, is above any other in the intra-action. Only by this, they claim, can we see matter for what it really is.

Their theory has, however, some lacks in elaborating a theory that can give an account of how humans can relate to this materiality. They explain how matter matter but are not able to explain how matter matter to language or how language matter to matter. In other words, they do not offer a theory for understanding the relation between the epistemic point of view, where the symbolic language is a vital part, and the world. What we are left with, then, are some loose threads as how they can talk of something appearing to us or in what way intra-action happens.

In this chapter I will turn to the theory of Merleau-Ponty, a phenomenology emphasising on the body are the starting point for experiencing and understanding the world. Will this theory be able to articulate the human epistemic point of view and meaning in a satisfying way? How is the epistemic explained in the existential phenomenology of Merleau-Ponty? Does the elaborate theory of the body come at the expense of a well-founded ontology? And, is the matter alive in this theory?

Merleau-Ponty wants to explore the relation between consciousness and nature, the same project Kant had in trying to explain how phenomena (matter/nature) can appear to a consciousness. However, the starting point for Merleau-Ponty is not the consciousness as an inner mind, rather it is the body. Being bodies, we perceive, and this perceiving is a structuring of the

world. The structure of the world is something belonging to subjectivity according to Merleau-Ponty: "no form of being can be posited without reference to the subjectivity," (Merleau-Ponty, The Visible and the Invisible, 1968, p. 167). Thus, the structuring of the world is dependent upon a subjectivity to explain how something can be regarded as meaningful, for the epistemic point of view, and in this sense, he brings in the theory from Kant. Immediately this is in contrast to Barad and Bennett, and this is why they criticise him for being anthropocentric, but maybe this will make it possible to give an account for articulation of meaning. To Merleau-Ponty, the phenomenon has to be explained as the appearing of something. And by explaining the phenomenon in this way rather than as a mere physical fact, we can be able to articulate how the world is meaningful to us.

To find this out there are several parts of his theory that needs elaboration. Central aspects are to understand the role of the body and perception has. From there we can explore how the body experience the world as a phenomenological field. Most important is to explore how he understands materiality and the body and if this is grounded in a strong ontology and what consequences this has for the epistemic realm. Firstly, the different levels of existence will be elaborated. This is the physical order, the vital order and the human order. These different orders or levels show different ways that things are in the world, but also, they show how we to make sense of things always already has a structure or form making phenomena possible to understand. Secondly, I will elaborate more on how the human world is structured and what this means for the experience of the world and in that sense how the world is and is given. The body is in focus, and by so he is capable of explaining how humans are in the world. Thirdly, I will explain how this can give an account for the epistemic perspective of the world. To argue for this way of explaining the epistemic I need to give an account for Merleau-Ponty's theory of meaning, language and signification.

II. Form, Structure and Physical Law

In *The Structure of Behavior*, three levels of organisation is presented: the physical order, the vital order and the human order. These are different ways the world is structured, dividing the world into the physical realm of inorganic objects, the vital order of organisms and animals and the human order of human beings, or subjects. Before all three levels of organisation are explained it is necessary to know what Merleau-Ponty means by structure.

The world has structure both on the level of the world itself and through perception. Form, or Gestalt, is used to describe the ontological level of organisation, and structure is in the world as

the worlds own spontaneous organisation. Form is taken from Gestalt psychology and establishes structures in a field, a field that must be understood as a whole structure. The whole structure makes the field meaningful and is only meaningful in this structure (Merleau-Ponty, *The Structure of Behavior* (2015), p. 137-138). ¹⁴ This field of structure is consisting of the things as they are given within this structure as a whole. These structures are static in the human perception as a way of organising the world.

The scope of human perception is important, because it is only by understanding the organisation of the world through this perception that we can grasp the world, according to Merleau-Ponty (Merleau-Ponty, 2015, p. 143). When defining form, it is not some sort of form that exist in the world that is perceived. Rather, form is something existing for perception, so that all structures depend upon a form that exist on a more fundamental level that the organisation of the world, a level that is rooted in the human perception. In clear contrast to the theory of Barad, Merleau-Ponty finds that it is not possible to talk about physical science without understanding form as prior to, and as a founding for, physics. Natural science makes no sense in itself and gives no meaning by itself. Physical science "is constructed with respect to it and in order to coordinate it," (Merleau-Ponty, 2015, p. 143). Form and knowledge are not a fact about the world, rather it is the framework and boundary in which physical knowledge can construct a reality.

This does not mean, however, that the human beings have completely access to the structures that constitute the world. Later in this chapter, when the text elaborates on the epistemic organisation of the human perception, it will be elaborated further that this is a stance against internalism. While the internalistic standpoint is that structures are in the consciousness completely, and that it is only the consciousness structuring the world, the phenomenological understanding of form is that the world is created through a dialectical movement between the perception and the world. Thus, the world is partaking and is not something human consciousness is grasping from form only inside the consciousness. From this it follows that physical laws and structures are inexhaustible and perception will never be able to understand all structure.

When it comes to structuring of the world, these Gestalts are discontinuous and are not static. The world organises itself in spontaneous organisations and these organisations offers a room for acting, where the world becomes stable but movable. The spontaneous organisations will create

¹⁴ For something to be given as meaningful we have to understand the structure as «a dynamic pattern that behaves as a whole," (Thompson, "Living Ways of Making Sense" (2011), p. 115).

structures with different levels of complexity, and this depends on what in the world that is constituting them. The level of complexity creates nonreducible differences that constitute the world in the physical order, the vital order and the human order.

How does Merleau-Ponty explain the different levels of organisation and the fact that these levels are nonreducible to one another? This will be shown by going through the physical order, the vital order and the human order, and the first level of organisation that will be elaborated is the physical order.

The physical order is structures of things, such as different nonorganic objects. As just mentioned, one is not to believe that physical structures exist in nature itself. Here is a point of departure between the phenomenological standpoint and Gestalt psychology as he understands it. Gestalt theorists believe physical structure of objects to exist in nature itself, and so form and structure is a fact about the world (Merleau-Ponty, 2015, p. 140). According to Merleau-Ponty's reading of Gestalt psychologists, they see the mind in relation to the structures in the world, but not as the originator. Merleau-Ponty, on the other hand, does not understand structures as existing in nature, rather, physical structures are constructed by the perception. The necessity of a perception is because physical law of nature only has meaning for something, and here a perception making possible for meaning to appear. To believe that form is something in the world as such is wrong and a misunderstanding of structure and how it is used in scientific practices. As Bohr and many quantum physicists with him believe, physical laws are ways of understanding the world, but is merely a method to do so, rather than something that is in the world itself. And this is in line with the Copenhagen interpretation of quantum mechanics. There is no deep truth to quantum objects. It is not an ontological structure pre-existing the perceptual subject.

But it is not as if this means that one should understand meaning as something being constructed on the world by a consciousness. Phenomenology is not an intellectualism, not a belief in internal processes causing the human mind to be the source of the creation of meaning. There is a dialectical relation between the laws of physics and the structure and form.

Finding laws in physical science is not about discovering the world as it is in pure being, and it should not be understood as things-in-themselves. Rather, physical laws are a way of dialectically forming the meaningful structures of how the world is perceived. An example showing this is the law of falling bodies (Merleau-Ponty, 2015, p. 141). The theory of falling bodies is a

theory explaining the ways an object falls to the ground where gravity plays a central role in the equation. This theory is only correct if the gravity in earth is constant and does not change. Thus, the theory is only relevant within the structure that it exists. Here the dialectical relation between physical laws and structure is showed. What this shows is that law and structure are in a dialectical relationship, and that law is only meaningful within the structure given, in the example of the falling bodies, in a context of this Earth. If these structures changes, for example if the gravitation would change, the law of falling bodies as it is today would not be right. So, a law in physics is merely a way of conceptualising the world and they have meaning only as a method for conceptualising (Merleau-Ponty, 2015, p. 145).

Science is given historically, as we have seen with the web of theories and laws that depend on one another. When deconstructing this web, one quickly finds that at some level one have to start with an assumption about the world, and with the example of falling bodies showing the dependence on specific structures, it becomes possible to think that there is not one truth given by physics that is a truth about the world as such, not a way of perceiving a world.

Even though the structure and physical laws can explain for example falling bodies, this does not mean that one should understand Merleau-Ponty's understanding of objects as mechanistic driven objects. On the contrary, he was interested in articulating how this is not the case, and here there is a similarity between him and the new materialists, and this becomes evident in the way he understands causal relations.

This is a critique of Descartes. As mentioned in the previous chapter, Descartes upheld a dualism between res cogitans and res extensa where the former is the internal, non-material substance, such as the soul or consciousness, and the latter is the external, extensive matter (Coole, 2010, p. 94). The extended space is for Descartes a space where things, objects, exist next to each other (*partes extra partes*) and these things interact through mechanistical laws. Here the things are merely external to each other and controlled by laws where the room for action is non-existing. This is a deterministic understanding of matter.

Following from this, a reconstruction of the notion of causality is needed, as was also argued by the new materialists in chapter 1. Positivistic understanding of physical laws is that it is possible to isolate different physical laws so that one only sees one law at the time. As commented in the last chapter, the classical causality sees causal relations as linear constellations where one thing is hit by another and react to this interaction. Here, both things are the same before and after the

incident: two individual things interacting by for example a hit or collision. This is normal practice in physical science. However, this is not how a phenomenon works. The phenomenon, as was demonstrated further up, is a constellation of meaningful structures and must be understood as a whole. The phenomenon is a whole structure in itself and dividing it so that this whole disappears will make it impossible to understand the causal relations. When dividing different physical structures from each other, the structures in which they become meaningful are also broken into smaller pieces. From this one can find linear causal relations, something that is not a good way of understanding how the world is, seeing as the world is not ordered causal relations where one causality comes after the other.

Merleau-Ponty also has a reworking of the notion of causality. Positivists' notion of causality is a concept looking at isolated sequences. However, causality should be regarded as interactions (Merleau-Ponty, 2015, p. 140). The phenomenological alternative to the classical understanding of causality is a nonlinear causality, similar to that of Bennett and Barad. Causality is not a series of linear causal relations, but rather a history – or dialectic – with discontinuous situations (Merleau-Ponty, 2015, p. 139). When causal series are used in science and physics one does not take into account all the factors relevant for the situation in the world. Many conditions are overlooked when using the linear causal way of understanding things and the objects are isolated from the environment they exist in in the world. For physics, he looked at the way one physical law is dependent on other physical laws. When experimenting with physical laws, one cannot isolate the events because one law is dependent on many other laws. So, what we find when testing a theory is that a theory is right within the web of theories that already are presupposed. Things are not changing due to mechanistic laws. Rather, changes happen in a web of structures and laws. Accordingly, he changes a simplistic understanding of matter for a dialectical understanding of matter and things. This dialectical understanding have similarities to the new materialistic understanding of causality, and we will explore this dialectical movement that Merleau-Ponty offers further down in this chapter.

Merleau-Ponty acknowledges that modern physics to a certain degree reconstructs the way to understand causal structures, a reconstruction distorting the classical understanding of these notions (Merleau-Ponty, 2015, p. 144-5). This is what lies in the room for uncertainty that exists in Bohr's physics-philosophy, as seen in last chapter. The phenomenon in Bohr's theory is a

constellation of perceiver, perceived and measurement, where the measurement is an active part in making the phenomenon meaningful (in his case for the scientist).

However, even though Bohr understands the phenomenon as relational and under constant development, he still had an Euclidian understanding of geometry (Fjelland, 2002, p. 60). According to Ragnar Fjelland this lies in the way Bohr understands apparatuses. Even though apparatuses are a part of the Bohrian understanding of phenomena, where causality is nondeterministic, he still believed that apparatuses have to work according to classical physics. As Fjelland points out, even the apparatuses themselves are formed in accordance with Euclidean geometry.

The structuring of the physical order is the structuring of nonorganic matter, where it is the human perception that structure the constellations in a dialectical relation with the world. This is the first level of organisation that is articulated in *The Structure of Behavior* and is of lower level of complexity. Now this text will turn to the vital order to see the next level of organisation. What defines this higher level of complexity? And how will the attributes that defines the vital order make it impossible to reduce the vital organisation to the lower organisation of physical objects?

III. Structuring Life - Organisms and Animals

The next level of organisation, with a higher degree of complexity, is the vital order. The vital order comprehends everything that has to do with organisms and living things. This is another level of organisation because there are aspects of this existence that is not reducible to the physical order of objects. What is it, then, that characterises this level, and how are we to understand organisms in a phenomenon?

An organism is to be understood as a phenomenon itself. As presented in the reworking of causality, one cannot reduce causal relations to its smaller parts. In the same way that causal structures cannot be reduced and isolated, the phenomenon cannot be divided up in parts. It is not possible to reduce the whole phenomenon to smaller units or parts. The same goes for organisms or animals. If a dog were to be reduced to an ear here and a tail there, it would be impossible to grasp the dog as a dog. Dividing the dog up in its parts is not how the dog is given to perception. Because things cannot be reduced to all its parts, the level of organisation that the organism is on cannot be reduced to that of the physical thing. We can only understand organisms through the milieu or the phenomenon, where the organism (re)acts to specific things such as "the act of taking

a bait, of walking toward a goal, of running away from danger," (Merleau-Ponty, 2015, p. 151). It is only by considering the organism as acting in the milieu it is a part of that their actions can have a meaning. Organisms cannot be reduced to the physiological factors that their bodies consist of, and most important, their reactions cannot be understood by these factors.

With this Merleau-Ponty does not mean that the organism has an unlimited number of vital forces, and he does not in any way make an argument for vitalism. He is merely pointing out the fact that one cannot isolate the organism based on physical facts and it is impossible to reduce an organism to lower levels of organisation, such as physical things. In what way the organisms and animals on the vital order is organised will now follow.

To understand what the difference between the physical order and the vital order is, it is necessary to examine the difference between correlation and signification (Merleau-Ponty, 2015, p. 155-156). Correlation is the defining notion when talking about the physical order. When physical systems are seen as a whole, this "whole" is a system of correlation. An example is pressing a letter on a keyboard. When the key "P" is pressed, it correlates in the system so that the letter "P" comes up on the screen. When it comes to the keyboard, if I press down the key "P" what will come up on the computer screen is the letter "P", and this will happen every time insofar as there is nothing wrong with the keyboard and no one has changed where the keys are usually placed. This is programmed into the machine, and so the machine reacts to me pressing down the "P". Organisms does not act in this way, and so one cannot compare animal behaviour to that of a machine (Merleau-Ponty, 2015, p. 13). The animal or organism is not mechanistic in this way.

This becomes evident when looking into what Merleau-Ponty writes about animal reaction of stimuli and reflex. Like the new materialists, Merleau-Ponty too criticised the belief that vital life can be reduced to causal relations of reflex. Through the research of the physiologist Goldstein, Merleau-Ponty criticise the traditional way of understanding organism and animals as merely having reflex to stimuli. This traditional understanding proposes that animals have a reflex to a stimulus. Here the stimulus happens to the animal followed by the reaction which is merely a reflex. The animal is not passive in the receiving of the stimulus, but rather bring in a meaningful act between the stimulus and the reflex. It can act in such a way that the stimulus is received as meaningful for it. Animals and organisms thus have a space of action between the stimulus and the expected response. In addition to this, the organism must also be understood as a part of a milieu, a field of forces, so, as written about causality, to be able to enclose the causal relation between

one stimulus and one reflex is not possible if one wants to say something about animal reaction. The way this happens is not through a linear causality, but rather by dialectical movements and changes.

This explanation of how animals react to stimuli, not as passive receivers but as active partakers shows that animals and organisms are not driven by correlation. Rather, what defines this lever of organisation is signification (Merleau-Ponty, 2015, p. 147). As something is of significance to the organism, it has the possibility of reacting to the situation in a way that has meaning for that specific organism, and is not to be reduced to physical factors. ¹⁵ The organism is not only controlled by physical forces, but also the stimuli that has a significance for the organism.

Signification is what defines all life, and so it is important to comment on what "life" means in the context of Merleau-Ponty's phenomenology. In *The Structure of Behavior* life is explained as something relevant for both the vital order and the human order. By life, it is thought of something that cannot be reduced neither to pure being by virtue of a sort of realism or empiricism nor merely a construction for the mind as found in intellectualism. Life in the vital order becomes evident because organisms show patterns that force human beings to understand these organisms as autonomous beings (Thompson, *Mind in Life* (2007), p. 48).

When a human being interacts with the animal, it is a dialectical relation between the human and the animal. In interacting with the animal, my actions are dependent upon the more spontaneous actions of the animal:

When my hand follows each effort of a struggling animal while holding an instrument for capturing it, it is clear that each of my movements responds to an external stimulation; but it is also clear that these stimulations could not be received without the movements by which I expose my receptors to their influence. (Merleau-Ponty, 2015, p. 13)

The animal is a partaker in the form that becomes manifest through the interaction. Here the animal and the human being are open to the interaction and react to each other actions. The animal has

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¹⁵ For the animal, the thing is not of disinterest: "To begin with, animal behavior is not directed toward a mere thing. It does not seize the thing that makes sense for it in a disinterested way, that is, as an object endowed with general properties. Instead, it encounters it in terms of its vital meaning; indeed, the thing is nothing but the incarnation of a vital need. Accordingly, the animals understanding of the thing is indistinguishable from the reaction the thing causes, that is to say, the animal's behavior," (Barbaras, 2005, 214).

here the possibility to choose what stimuli to be affected by, and to some degree what stimuli to react to. This is a possibility the computer keyboard does not have.

This does not mean that the vital order is driven by some forces vitalists write about. In chapter 1, vitalism was portrayed by Bennett's understandings of Bergson and Driesch, two of the most important vitalists bringing vitalism to the 19th century. Vitalism is a theory saying that living bodies cannot be reduced to physical or chemical facts. Merleau-Ponty on his side were not a vitalist. So how did he manage to explain the possibility of action in organisms? To be able to explain the organism as something other than physical factors, and by avoiding vitalism, one can use signification. When interacting with the animal, the animal is able to act in a way that is meaningful to it. When I try to capture it, it responds by moving in such a way that it tries to avoid being captured. This does not need an explanation of a force or a soul being in all living things, because through signification the animal can understand itself and the environment in the act of avoiding my instrument for capturing.

As in the physical order, in the vital order it is not possible to give an analysis that exhaust the analysis of structures (Merleau-Ponty, 2015, p. 153). As with the physical structures where one has to start at a given, a given that is given historically, the same goes for biological structures. It is impossible to grasp the structure as a whole. When discovering an aspect of the biological one will with certainty presuppose other structures that plays a part in the phenomenon.

IV. The Structuring of a Perceiving Subject

Thus far the order of the physical and the vital has been presented, and it has been stressed that these different levels of organisation is nonreducible to lower levels of complexity. Now it is time to turn to the perceiver that is structuring the orders and so to the third order with the highest level of complexity: the human order. "While a physical system equilibrates itself in respect to the given forces of the milieu and the animal organism constructs a stable milieu for itself corresponding to the monotonous *a prioris* of need and instinct, human work inaugurates a third dialectic," (Merleau-Ponty, 2015, p. 162). As seen so far, the physical structures create balance within its own system through forces, and the organisms are able to create stable structures by the sort of signification they give the milieu, the human in addition has a third aspect structuring the world.

Language is how humans relate to things. Living things too can have a meaningful experience, but this is only at a level of vital need. Just as the animal has a way of signification

where things become meaningful for it and it can act in the world in a meaningful way, a part of the world being meaningful for humans lies in the use of language. With the body, the language is a part of the behaviour in which humans are in the world and offers a certain type of signification. What is at the heart of human structuring is signification, and it is different from that of organisms because understanding of symbols is the understanding of things in more complex structures than that of following vital need. Merleau-Ponty understands signification through form, and this enables an understanding of phenomena as complex structures. The signification is understood as a fundamental way of structuring the world, and so is at the core of the human experience. 17

What is special about the human behaviour is that it can create new structures. Humans can go beyond what is structured to create new structures. The relation between nature and culture is not a clear one, but what is clear is, and which this example shows, is that we cannot be reduced to merely biological creatures, since everything, both language and bodily articulations of feelings are due to a signification that is specific for the human order. The human transcends one's corporeal life by creating "existential significance" and going beyond the sphere of "natural needs" (Barbaras, "A Phenomenology of Life" (2005), p. 210). The understood body is neither an object for biology nor physiology.

Seeing as life is a central aspect for all living things, this is also the fact for the human order. What life means for the respective orders are, however, not the same. For the animal, life is the room for action that happens between a stimulus and a reflex, and that this is something that becomes evident for human beings by experiencing the action of the animal in interaction. This is however linked to biological facts. For humans, one cannot only understand humans by looking at the biological facticity, we can never understand ourselves as animals or as reduced to what defines the vital order (Merleau-Ponty, *Phenomenology of Perception* (2014), p. 195). The difference between an animal milieu and a human world is that for the animal, the milieu is merely a milieu (*Umwelt*), while human beings have a world (*Welt*). What lies in this distinction is that the animal

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¹⁶ "Symbols imply the mental ability to grasp something as an invariant under a diversity of aspects and perspectives. Thus symbols imply the ability to grasp something as an object, in the phenomenological sense of something that remains invariant through perspectival variation and is graspable by the subject as also being available to other subjects," (Thompson, 2007, p. 76).

¹⁷ "[A] gestalt remains objective even though it is not an object in the sense of a sum of material parts. [...] The concept of signification thus defines the ontological status of forms, that is to say, original realities, not contents of consciousness," (Barbaras, 2005, p. 218-219).

can merely act in the world given to it, and human beings can act in such a way that new structures and new worlds are created.

What also has to be taken into account is the symbolic factor. As mentioned, what is specific for the human order is the verbal gesture – language. Language, the symbolic part of the human order, is organised towards the specific factors that is part of the human order and specific attributes in the human world. This is things as culture, language, or other human specific objects or factors. What gives people the possibility of the meaningful is the symbolic behaviour. The symbolic is what is special for the human realm, like culture or language. Language is not understood as objects, but as a way for the body to create signification in the world it embodies.

Language being embodied, as the way human relates to the world, points towards the way humans relate to the world as a world of use-objects. ¹⁸ Use-objects is what Merleau-Ponty calls things with a cultural meaning to it. This is what is found between the human beings and "physicochemical stimuli" (Merleau-Ponty, 2015, p. 162). It is not only about responding to the milieu in a significant way, but also about the possibility to respond to the milieu in a way that a work is carried out changing the milieu itself.

Ambiguity is something defining human beings. The world is not given as transparent, but rather as opaque and ambiguous (Merleau-Ponty, 2014, p. 169). Ambiguity is a central part of human existence since this means that the world is never exhaustible to our experience of it, and this is a part of our fundamental structure. It is this ambiguity that makes both the vital and the physical order inexhaustible.

The way the human being act in the world is through two types of expression. One is what of language, and the other is bodily gestures. The first, as has been mentioned and will be elaborated further down, is the verbal gesture (language) and the second is bodily gestures. Bodily gestures are how the body acts in a situation, a phenomenon. Here gestures and feelings are closely linked

¹⁸ Heidegger has an explanation of how the world is first and foremost a lifeworld and not a physical world. It is not

and Time (1980), p. 98)

relation to it become, and the more unveiledly is it encountered as that which it is - as equipment." (Heidegger, Being

as if the world is given as physical realities because of scientific laws. First and foremost, what the lifeworld is, is objects which can be used, which is called tools. The use-objects have meaning as use-objects, not through laws. "Equipment can genuinely show itself only in dealings cut to its own measure (hammering with a hammer, for example); but in such dealings an entity of this kind is not *grasped* thematically as an occurring Thing, nor is the equipment-structure known as such even in the using... In dealings such as this, where something is put to use, our concern subordinates itself to the "in-order-to" which is constitutive for the equipment we are employing at the time; the less we just stare at the hammer-Thing, and the more we seize hold of it and use it, the more primordial does our

for human beings. When witnessing a gesture, it is not as if the gesture merely *hints* at a feeling. Take anger, for example. In witnessing a gesture of anger, it is not hinting towards something behind the gesture, and this is not how it would be taken either. "The gesture does not *make me think* of anger, it is the anger itself," (Merleau-Ponty, 2014, p. 190). When seeing a gesture of anger, the anger is in the gesture that is perceived. The gesture is not grasped and understood through going behind the gesture itself. The meaning of the gesture is, rather, in the gesture itself. It does not reach after something behind the gesture, but the meaning "emerges with the structure of the world that the gesture sketches out and that I take up for myself," (Merleau-Ponty, 2014, p.191-192). Gestures are understood and does not need any intellectualisation to be understood. Thus, other people are understood through gesturing.

One could think that this understanding of gestures would be the same for every human, but this is not true. The way human signification is made into gestures is dependent upon different factors, where one way of gesturing is different from another between different cultures and can be changed and formed.

When angry, the Japanese person smiles, whereas the Westerner turns red and stamps his foot, or even turns pale and speaks with a shrill voice. Having the same organs and the same nervous system is not sufficient for the same emotions to take on the same signs in two different conscious subjects. What matters is the manner in which they make use of their body, the simultaneous articulation of their body and their world in the emotion, (Merleau-Ponty, 2014, p. 195).

So, even feelings are created by a culture, rather than being naturally given. It is not biological facticities that control how feelings are articulated. Not only language is created, also the way feelings are expressed through the body and behaviour.

While the bodily gesture is in a physical landscape, the verbal gesture is directed towards a mental field (Merleau-Ponty, 2014, p. 192). Here the point is to articulate or gesticulate a landscape that is hidden for others, the consciousness. For this to be possible it is not enough to have a common world. When it comes to language, Merleau-Ponty see a close link between the world one lives in and the language one speaks; language is part of the world constructed for the subject. Even this depends upon one's original language. Even in the case where one can speak several languages, there will always be an original language, one in which we experience the world through. We can never belong to two such worlds simultaneously (Merleau-Ponty, 2014, p. 193). This common world has to be accompanied by a common language of signification, so that language has the same

meaning for two subjects. This requires a web of language practices that are shared by a number of subjects.

Even though language is important for expressing an inner landscape that is hidden from other subjects, language is not only expression of thought (Merleau-Ponty, 2014, p. 199). It is, as seen in the last paragraph, a way of being in the world, of experiencing the world. Language is a way of structuring this world in a way that is given in a significant way.

By turning to the way human beings are in the world, we move from writing about the structures of the world to the epistemic point of view that human beings experience the world through. In what way does the human experience the world?

V. The Perceiving of the World

Until now, what has been explained in this chapter is the structure of the world, and how this is divided into three levels of organisation: the physical order, the vital order and the human order. This has shed light on the ontological and material aspects of the world. The human order is privileged in the sense that human perception is always already implicit in the structure of physical objects and vital organisms, and the phenomenological understanding of the body is connected to the human realm because it is humans that are attributed gestures, both bodily and verbal. With that as a point of departure, it is now time to elaborate more on the epistemic point of view that is made possible in the structuring of human perception. The problem is to be able to explain how the world, as phenomena, can appear to us, but at the same time not turn to merely objects of the mind. Merleau-Ponty, seeing as humans have a privileged position by means of being the ones structuring the world, have something Kantian to him. However, as we will see, he takes it a step further, based on the Husserlian phenomenon, to show, as new materialists show, that there is materialisation in phenomena.

As humans we are already in the world and our fundamental existence is as "being-in-theworld". In the normal interaction with the world, we do not question the existence of the world since we always already are in the world. "The world is not what I think, but what I live [ce que je vis]; I am open to the world, I unquestionably communicate with it," (Merleau-Ponty, 2014, p. lxxx-lxxxi). We live in the world and are open to the world as it is given to us and as it shows itself. And we are in this world through the body; we do not grasp the world through an internal construction of the mind, nor is it a world outside our experience and organisation of it.

Being-in-the-world Merleau-Ponty exchanges the transcendental structure of Husserl in favour of an existential structure focusing on the notion of "being-in-the-world". But Merleau-Ponty also has a transcendental aspect in his philosophy so far as this is that the world can be given as meaningful, and this, as will be elaborated further down, is dependent on the possibility to go beyond the tings just as given to us.

An argument against Descartes it that the subject already understands itself as being in the world (Merleau-Ponty, 2014, p. lxxvii). And so, the consciousness – the Cogito – does not understand itself because of the thought of existing as Descartes is known for believing. Because the subject already understands itself as being in the world, the world is understood as the factual thing or phenomenon that it is, rather than a signification of the world. It is not idealism, but the world itself the subject understands as the world.

Because of this, neither intellectualism nor empiricism is sufficient to explain the way the world is organized. Empiricism, trying to explain the world by means of giving an account for the things in the world, and intellectualism, trying to explain the world by means of what is meaningful in the mind, both miss the point of a dialectical and dependent relation between the ontological and the epistemological. Both the world of organisms and that of humans and human consciousness emerge through and by a natural world. A world that exist and is not reducible to the human mind, a world of form and spontaneous organisation, and in the same time a world appearing through the human perception.

The task for a phenomenologist thus becomes explaining the world as it emerges in the experience. This task is not about finding some preceding truth about the world as it is in itself, but rather to see how truth is actualised (Merleau-Ponty, 2014, p. lxxxiv). It is about elaborating a theory that thematise how the world becomes meaningful for the subject.

Natural science cannot do this in the right manner because, as has been written, it does not go deep enough to the structuring of the world. The problem lies in that natural science operate in a way that takes "for granted that there are objects that can be investigated, but it does not reflect upon what it means for something to be given as an object of investigation, nor how this givenness is possible in the first place," (Zahavi, 2017, p. 56-57). This is exactly what the phenomenological method of investigation does; look at in what way the world is given and experienced. The task for Merleau-Ponty's existential phenomenology is to show how the object is given to us; how things "can appear in front of me, can crystallize the flow of my experiences, and can, in short, be present

to me," (Merleau-Ponty, 2014, p. 313). And to do so, one has to find a method for how this object appear for us. This is not a scientific look on the world, but rather finding the existential structure of the world.

In the investigation of finding the existential structure, Merleau-Ponty finds that the human as always being-in-the-world has a naïve contact with the world. The naïve contact with the world is the fundamental trust in the world around us — we are in a world that we feel familiar with, and in our practical being-with the world we do not question the existence of that world. Under no circumstances are we, in our natural attitude, sceptical about the world's existence because we trust in the world that appears to us. Our natural attitude with the world is a prereflective attitude. People have a naïve contact with the world by being in the world and having the world as the possibility and limit for experience. This naïve relation to the world is what Merleau-Ponty calls *the real*. The real is the primal relation we have to the world, always already in the world.

The notion of a "natural attitude" is what Husserl calls the unthematized assumptions we bring forth when perceiving the world. This attitude is the way subjects are in the world naturally. Since this is pre-theoretical, it is easy to disregard how this forms the experience. This is what positive science does (Zahavi, *Husserl's Legacy* (2017), p. 56).

How are we able to find how the world is given through a natural attitude? To do this we have to go behind the way we normally are in the world, we have to move away from the way we normally think about the world, and by doing this see how the world emerge (Merleau-Ponty, 2014, lxxvii). We have to do this not to trap ourselves in the way we usually talk about the world, which today is heavily influenced by natural science. I a sense he supports Husserl's reduction of the world, to understand how the world emerges by putting it in brackets. An important aspect here is that it is impossible to complete the reduction because we cannot understand the world by turning away from the world. How the world is always partaking in the experience of it, and therefore impossible to remove from our understanding of it, will be elaborated further down in this chapter.

The Husserlian reduction involves, as written, a form of putting the world in brackets, or as Husserl calls it, to do an *epoché* of the natural attitude. Putting this attitude in brackets enables awareness of this natural attitude and is vital for understanding thing perceived without being stuck in the normal way of understanding the thing. When carrying out an epoché of the world, it is not a way of getting rid of the natural attitude as such, seeing as this is impossible to turn away from completely, but enables a way to reflect upon it. It is not about losing sight of the world, or turn to

a mental sphere, rather, it is about being aware of from where one is perceiving, and also shed light on the fact that when perceiving an object, the subject is always at a specific place and time; not to see the object 'from nowhere', but to understand that the object always is perceived from somewhere, at some time (Zahavi, 2017, p. 57). What is taken away in the epoché is not the world, but "the naivety of simply taking the world for granted" (Zahavi, 2017, p. 67), and by that not seeing how the consciousness contributes. This "taking the world for granted" is a problem natural science exists in without necessarily being aware of it.

What is discovered in the phenomenological reduction? It is, amongst other things, that we always already are in the world in terms of a natural attitude. In addition, we are in the world as intentional, perceiving bodily subjects. Because the focus is on the human experience, the theory does not go further than to explain the framework of experience for human beings. The theory of intentionality and perception as now will be presented, is thus of the human intentionality and perception.

Intentionality is the fundamental way human beings are in the world: human beings are always in an intentional relation to the world. This is a movement towards the world. ¹⁹ Intentionality shows a structural aspect of the consciousness, and it is not about a subjective inner feeling, but rather the attentiveness towards objects. Subjects are always being towards things in the world. Only through the phenomenological reduction can we understand the intentionality (Merleau-Ponty, 2014, p. lxxxi). The intentionality is the pre-objective way the human is towards the world. When reflecting upon the world, one does not turn away from the world (Merleau-Ponty, 2014, p. lxxvii). The reflection merely is taking a step back to make the world appear to us in a way that is taking a step back from the intentionality, a step back from the way humans usually are in the world. It is not through the reflection that we grasp the world, but the reflection can help in grasping the world to a certain degree freer from the way we usually are in the world. Here the world "usually" is important since our usual way of being in the world is not through reflection but by being in the world.

¹⁹ This is what Husserl called operative intentionality, a notion explaining the natural connection between being and world (Merleau-Ponty, 2014, p. lxxxii). This is different from act intentionality which describes making a judgement about the world. The act intentionality is the intentionality Kant is writing about. Merleau-Ponty's intentionality is not trying to say something about how to make a judgement, which is focused on inner relations and structures in the consciousness. Rather, what Merleau-Ponty wants to express is the fundamental existence of human beings in the world.

There is a level of intentionality below that of explicit acts, which manifests itself in an active bodily engagement that is our primary rapport with the world. He claims, for example, that, "a movement is learned when the body has understood it, that is, when it has incorporated it into its 'world', and to move one's body is to aim at things through it; it is to allow oneself to respond to their call" (Merleau-Ponty, 2014, p. 138–139)." Intentionality is both the directedness towards a thing, but also the openness to the world as an other.

This directedness towards things and the openness to the world is experienced through perception. Perception allows the phenomenon to appear – the perceiver takes part in the organization of meaning of what appears. Perception is how the human and the human perception is in the world. The perception, because it is the structuring of the experience, is the source of knowledge, and therefore it is important to understand the concept. Perception in a phenomenological understanding is crucially different from that of intellectualists and internalists. The latter theories see perception as a way of structuring the world by turning away from the world "out there" and inwards to an inner consciousness that processes the world. The phenomenology we work with here, however, is a different perception; a situated perception. Perception is not a cognitive act, but rather the way we access the world. Perception is not about a passive seer seeing from "nowhere" but rather, the seer experiencing from that exact position.

The way a perceiving subject is situated is through the body and the way we can perceive the world is through the way we are in the world – as a body. "One's own body is in the world just as the heart is in the organism: it continuously breathes life into the visible spectacle, animates it and nourishes it from within, and forms a system with it," (Merleau-Ponty, 2014, 209). The body is at the centre of the theory of perception. It is through the body that the person can perceive the world, and the body is the being-in-the-world. The world is integrated in the body, and the understanding of it is already existing in concrete, singular instances.

As the body is a perceiving body, it is always situated in the world in a specific place at a specific time. The body does not live in space the body is space. This shows how the phenomenological explanation of space and existence is very different from that of Descartes.

The world is experienced through sensing. The sensing by the body enables our communication with and in the world, a "place" where the world can show itself in a way that we are familiar with it. This is in line with the naïve contact we have with the world. When we perceive, we are in a contact with an object which is given to us through sensing.

An example Merleau-Ponty gives of sensing is the sensing of colours. The experience of colours an object has will vary depending on different perspectives on the thing (Merleau-Ponty, 2014, p. 319). An object with the colour blue will have different shades of blue depending on the perspective. Sometimes the blue colour will seem dark, other times light. Colours are thus not irrelevant characteristics about the thing but an opening to understand the thing given to a subject. This is an example of the experience of objects through touch, gaze and other sensory aspects (Merleau-Ponty, 2014, p. 331). The objects meet us through different attributes such as the softness when touching it or what the colour is. In this way, things call for our attention in specific ways.

Describing attributes as form or size is only secondary, it is a way of showing how the perceiving is central to the phenomenon, because "[t]he thing is large if my gaze cannot encompass it, small if it does so easily," (Merleau-Ponty, 2014, 317). The size is just saying something about me in the perception, it is saying something about how I in relation to the object. The most original way of experiencing the object is the fact on how I have to move around the object to uncover it.

Our body can be understood as a body schema. The body schema is what makes it possible for me to understand my body as the whole of which I am towards the world. This is how I can be familiar with my body, and understand my body, and all of my limbs, as a whole. This, Merleau-Ponty illustrates well through his example of leaning hands on a desk. In leaning the hands on my desk, the only part on my body being "active" are my hands, but it is not the only limb being affected by the posture, and it is not the only limbs I am aware of. "I am not unaware of the location of my shoulders or my waist; rather, this awareness is enveloped in my awareness of my hands and my stance is read, so to speak, in how my hands lean upon the desk" (Merleau-Ponty, 2014, p. 102). My whole posture can be understood by my hands being in the desk.

Thus far this chapter has elaborated on the different levels of structuring introduced by Merleau-Ponty and what it means to be a subject. We know now that the subject is an embodied subject always already in the world, and the phenomena are accessed by the subject as body, because the subject is being-in-the-world. Because we are in the world as bodies, the phenomena is a materialisation of this world, in the interaction between world and body. Phenomena are in the world in the corporeal subject's perception of the world. Now, it is time to look at how the body is in the world; how the world is explored by a corporeal subject.

VI. Object-Horizon Structure and the Notion of Meaning

What has now been presented as a perceiving subject is a corporeal subject always already in the world, presented to a phenomenological field. As written earlier in this chapter the phenomenon in the tradition of phenomenology is the world as perceived by a subject, pre-scientifically, which means that Merleau-Ponty brings with him parts of the Kantian understanding of phenomena as structured by a consciousness. However, the consciousness is exchanged for a body that is in the world. To grasp more closely the materialisation of phenomena as the world being presented to a corporeal subject that is part of this world, it is necessary to look at how these bodies constructing the world as meaningful.

The phenomenon in the tradition of phenomenology begins with Husserl. As Merleau-Ponty, Husserl describes the phenomenon as dependent on a subject and tries to answer to the Kantian problem of how phenomena can appear to us. There is, however, a significant difference between the Husserlian and the Kantian phenomenon. For Husserl, the phenomenon is the object-as-it-appears to us, but there is nothing outside this "appearing to us": "External perception [...] is an experiencing of something itself, the physical thing itself: "it itself is there"," (Husserl, 1999, 23). Husserl proposed that what is perceived is not something detached from the world, but rather the world itself, and so, the meaning of the thing is in the thing itself.

The phenomenon is a phenomenon existing prior to scientific articulation (Merleau-Ponty, 2014, p. 59). It is not a phenomenon of the scientific phenomenon, rather it is a pre-existing experience. We are able to pierce into this phenomenological field. This pre-existing field is what is always behind the scientific articulation, and the full understanding of the scientific can only be grasped on the background of a phenomenological field.

As perceiver the act of perceiving is keeping the body active, and the perception opens up a field for the body to explore. "The phenomenological world is not pure being, but rather the sense that shines forth at the intersection of my experiences and at the intersection of my experiences with those of others through a sort of gearing into each other," (Merleau-Ponty, 2014, p. lxxxiv). The perception is the access to the world, as a body in the world, and this field can be called the phenomenological field. This field is for the body a field consisting of parts that the subject interacts with actively or passively.

When the body, the person, acts in the world, it is not as if it relates itself to the world with distance. Rather, the world is given as a field that is present to the body in the sense of "practical"

intentions," (Merleau-Ponty, 2015, p. 168). As elaborated further up, this is the most primal way humans are in the world – through the world as use-objects in which the subject relates in a practical way. Merleau-Ponty explains this practical interaction using a football player as example:

The field itself is not given to him, but present as the immanent term of his practical intentions; the player becomes one with it and feels the direction of the "goal," for example, just as immediately as the vertical and the horizontal planes of his own body. It would not be sufficient to say that consciousness inhabits this milieu. At this moment consciousness is nothing other than the dialectic of milieu and action. Each maneuver undertaken by the player modifies the character of the field and establishes in it new lines of force in which the action in turn unfolds and is accomplished, again altering the phenomenal field, (Merleau-Ponty, 2015, p. 168-169).

The football player does not relate to the football field at a distance. On the contrary, the player is a part of the field – inhabits the field – and moves accordingly. As the field changes the football player takes the changing field into account in the movement of his body. In other words, the action executed by the corporeal subject is inseparable from the field that action is performed, and in addition to this the field is changing in the movement.

To understand this dialectical interaction between field and subject, we have to look at the structuring of this phenomenological field. The field is understood as a structure of figure and background, or object-horizon structure to use Husserlian terms. The figure is the object in focus, the object that is actively perceived by the subject. The background is the horizon of our understanding, everything that the subject brings to the perception, everything that is yet to be discovered, and the horizon as the actual landscape that is the world surrounding the object perceived. The figure-background structure has two sides; an active one and a passive one. To use Husserlian terms, there is an active and a passive genesis in the experience of the phenomenological field.²⁰ This constitute what Merleau-Ponty calls a structure of figure-background.

There is one more component to the structure of figure and background and that is the perceiving subject (Merleau-Ponty, 2014, p. 103). This third perspective implied is due to the fact that the perception of the object depends upon a perceiver. The perception through the body, is the possible way the object can appear, and it happens through a structure that lays open for the body

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²⁰ "In active genesis the Ego functions as productively constitutive, by means of subjective processes that are specifically acts of the Ego. [...] The "ready-made" object that confronts us in life as an existent mere physical thing [...] is given, with the originality of the "it itself", in the synthesis of a passive experience," (Husserl, 1999, p. 78).

to explore and make sense of. To give the cube a meaning, for example, we have to place ourselves in the position of the cube, and then we can see the relation between this cube and other objects.

The sensing is what perception is rooted in, and through sensing, the subject is bombarded with possibilities of perception (Merleau-Ponty, 2014, p. 215). To take up their possibilities of sensation, the body take up the position that the objects leaves as open to us. The object suggests ways of the subject taking up space and relate to this object that is outside it. This is because of the position of the body.

I have the position of objects through the position of my body, or inversely I have the position of my body through the position of objects, not through a logical implication, nor in the manner in which we determine an unknown size through its objective relations with given sizes, but rather through a real implication and because my body is a movement toward the world and because the world is my body's support, (Merleau-Ponty, 2014, p. 366).

The placing of myself in the object I have predicates about, is the structure of how a perceiver is arranging the perception. This is a structure that the perceiver brings in, and in that sense the perceiver has a hold on the object. The perceiver has a control over the way the field is uncovered.

The moving around the object presuppose that there is an actual world with a cube that one moves around. Where the world is actually given to us in form of a naïve trust in this world. The world we perceive is the world "out there", and here we have seen how Merleau-Ponty argues this by showing that the horizon already is accounted for in the experience of the world. To elaborate further on this, it is necessary to see how phenomenology account for the becoming of meaning and knowledge.

To understand this, it is vital to understand how the background is relevant to the perceiving of the object. Merleau-Ponty articulates that the background always is relevant even though it is not given to us directly. What it does is to create a background for the object, a background giving the object a ground of identity (Merleau-Ponty, 2014, p. 70). The background gives an identity that is part of the perceived object. Through perception we are able to feel "the near presence of the canvas beneath the painting, the crumbling cement beneath the monument, or the tiring actor beneath the character" (Merleau-Ponty, 2014, 26). The canvas is what assures the identity of the painting at the same time as it is not the focus of the painting. The actor is always present in the role he or she is playing, whether it is thematised or not, but is nevertheless a vital backdrop for the understanding of the role or the painting, which enables it to exist.

When I perceive the object, I move my eyes according to the object. The gaze captures a part of the field, and this becomes the active part of the perceiving. Here the object comes into focus. What happens to the rest of the landscape, the landscape of all other objects, is that it becomes the passive part of my perceiving. They still play a central role in my understanding of the object which I am actively towards, but a passive role. This is the horizon of my perceptual field, and it plays a central role in perceiving.

The horizon is always present when perceiving the object. This presence is for example in the way things are reflected in each other (Merleau-Ponty, 2014, p. 71). When perceiving an object from a specific point of view it is not merely the object from my side. The lamp is not given to be only from the angle from which I stand. The subject always perceives from a certain "here" and a certain "now", but when perceiving the lamp, it is not given as a one-dimensional thing.

to see an object is to come to inhabit it and to thereby grasp all things according to the sides these other things turn toward this object. And yet, to the extent that I also see those things, they remain places open to my gaze and, being visually situated in them, I already perceive the central object of my present vision from different angles. Each object, then, is the mirror of all the others, (Merleau-Ponty, 2014, p. 70-71).

To grasp the lamp is not to grasp the lamp merely from one side. Rather, I ascribe the lamp all the sides of the lamp. I see the lamp not only from my "here" and "now" (even though the perception always is from a specific position) but also from the viewpoint of the chair sitting on the other side of the room, the walls and the table the lamp stands on. When perceiving I do not merely see one side of the lamp. In the lamp there is also the lamp in relation to the other objects around it, and these sides is taken into account when perceiving, and it is in this way that each object "is the mirror of all the others". Because the thing is given as a thing taking up space and time, it is not given as flat, but take up a space constituting the world and is part of making up how the body moves to perceive the world.

Nature itself has to be thought of through the human intentionality and historicity, thus the phenomenon cannot be explained without the human perception. However, at the same time, the nature is not reduced to the human perception. These aspects are explained by elaborating the structure of perception and the phenomenological field – the object-horizon structure.

Husserl used the terms active and passive genesis, and in his terms, what Merleau-Ponty calls the intentional arc is the same as Husserl's passive genesis. "The intentional arc creates the unity of the senses, the unity of all senses with intelligence, and the unity of sensitivity and

motricity," (Merleau-Ponty, 2014, p. 137). The intentional arc has in it the past and the future, and every other situated character of the perceiver, it is the facticity of the perceiver, which is always relevant in perceiving a specific object. This is the self-constitution of the body and the world, and is a horizon containing all aspects of the human lifeworld, the world now lived in and the understanding of this world.

Seeing the notion of meaning as perceptual is to see the structure of active-passive genesis as the structuring of the world. As already attended, this structure presumes the horizon is always there in the perceiving of an object.²¹ The meaning thus has to be in the thing perceived: "Our minds are not self-contained, rather they reach out into the environment since they depend for their content and thus for their very identity upon the nature of the environment" (Zahavi, "Husserl's Noema and the Internalism-Externalism Debate", 2006, p. 43).²² The world itself brings structure for the perceiver to make sense of. Because of the active-passive genesis where the horizon is always a part of the phenomenon appearing, we must understand meaning and structure as being a part of the object.

Perception cannot be reduced to internal processes of meaning. If the object shows itself in the background, as has been established, the object cannot be reduced to a mental judgement about a mere object. Things give themselves to a subject through phenomena. The meaning of the things is formed by the wholeness of characteristics that meet the subject, and so, objects give themselves as integral beings (Merleau-Ponty, 2014, p. 336). This we can see in connection with phenomena being nonreducible as written above in this chapter. The object-horizon structure is articulation of how phenomena must be understood as whole, nonreducible structures that can only be grasped as whole. Not to take the horizon into account is to isolate the object.

Since the notion of meaning is reworked to mean the multiple aspects of experience from specific perceptions and from different subjects, the notion of objectivity as used in science has to

²¹ To understand the relation between object, horizon and meaning it can be beneficial to look into the debate on Husserl's notion of the noema. This is the debate between what is called the west coast and the east coast understandings of the noema. The west coast understanding of the noema understands Husserl through Frege. Dagfinn Føllesdal advocated this stance where the noema, the object-as-it-is-intended, is understood as a mental activity. The east coast understanding of the object-as-it-is-intended is that it is placed in the thing itself. Dan Zahavi is a philosopher taking this stance. If Husserl is understood as meaning the latter, then meaning has to be in the correlation between the subject and the object itself and cannot be reduced to mental activity.

²² Even though Husserl in some texts seems to agree with that the noema is a mental activity, he other places is clear that this is not the case: "To claim that consciousness 'relates' itself to a transcendent object through its immanent Sinn […] is a problematic and, to be more precise, false way of speaking. I have never meant something like this" (Husserl, Ms. B III 12 IV, 82a, cited in Zahavi, 2006, 49).

be reinterpreted (Merleau-Ponty, 2014, p. 366). There is a world beneath the objective thought that is controlled by the experience of the world through the gestures of the body.

Since meaning is to be understood as the dialectic movement between the world and a subject, Merleau-Ponty offers a new understanding what objectivity is. When Merleau-Ponty moves away from understanding the object as merely abstract sense, but rather meaning as an intersection of all aspects of the thing, then the understanding of objectivity changes. What phenomenology does to objective facts is to say that the objective character of the world is when all the different aspects are implied, which is shown through the transcendental reduction.

Obviously, we then have to forget the traditional objective stance that the object should be seen from nowhere. The objective object is seen from everywhere. Of course, the perception is a specific aspect, but the object is still the same object even if it is perceived in a different time, from a different angle and by different people (Merleau-Ponty, 2014, p. 71). Merleau-Ponty is here clearly agreeing with Husserl and the east coast interpretation that the object cannot be any object, it is rather this specific house I perceive. This is not to say that the perception gives us the whole truth of an object, but it rather shows that the perception is how we can have access to the truth (Merleau-Ponty, 2014, p. lxxx). This intends that the understanding of the object never can be without someone to perceive. The corporeal subject is what make up meaning, not only as a body, because structure is more than mere body, but where the body works as a stabilator (Merleau-Ponty, 2014, p. 334).

However, the meaning a thing can have is never exhaustible to human beings. Something will always be hidden from the perception (Merleau-Ponty, 2014, p. 336). Thus, the things manage to keep their independence from human perception. The perception will never grasp an absolute time and space. There is always a side of the object that stays hidden for me because I always take up a specific space at a specific time in the perception of the object. Only through analytical reflection can one believe that the object is captured, but this is to believe that the object is seen from nowhere, and as we have seen, this is not true (Merleau-Ponty, 2014, p. 211).

We have to go beyond the world to give an object a meaning, but this does not mean that the notion of meaning is merely a work of consciousness. There is no clear cut between inner and outer. "The interior and the exterior are inseparable. The world is entirely on the inside, and I am entirely outside of myself," (Merleau-Ponty, 2014, p. 430). There is a debate on whether Husserl thinks this meaningfulness is produced in the consciousness or outside it, but Zahavi argues that

Husserl goes beyond this internalism/externalism-debate, and that we should understand the noema as the object. The noema and the phenomenon are the same, hence inseparable: the tree-as-intended is the same as the tree-as-it-appears, and it is impossible to talk about the existence of a "real" tree outside this appearance.

Barbaras point out the necessity of both a biological realm and a realm transcending the biological that is meaningful for humans (Barbaras, 2005, p. 211). For the first, humans have to have certain biological traits to be alive at all. To be able to experience the world, we have to be biological creatures, but for this to be meaningful for us, this biological realm has to be transcended by the signification that comes to being in a mix of the structures of the world, and the structures of human perception. Only in this way can relationships become meaningful for us. Every meaningful statement has to transcend the material in a sense that it has to go beyond the matter, but it is also crucial to Merleau-Ponty that the body is the foundation for this "going beyond" (Barbaras, 2005, p. 211).

Thus, the epistemic perspective, that we up to now has explained as the corporeal subject in the world perceiving the factual world which is partaking in the meaning that is articulated of it, must transcend mere matter even though it is the world itself that is perceived. To understand a part of this "going beyond" we must look at the symbolic aspect of the epistemic perspective since humans perceive the world, grasp its notion of meaning through, amongst other things, language.

VII. Language and Communication

The phenomenon is the relation between a subject and object, where there is a dialectic movement between concept and praxis, between language and matter. Seeing as language is a vital part of the human access to the world, it is necessary to explain the relation between the world and language to articulate humans being in the world. Language to Merleau-Ponty is not the representationalistic language where there is separation between the word and the thing the word refers to. It is necessary to articulate what language is to be able to articulate the world for us, since language is not merely something added to the human existence but is at the core of our being in the world, as mentioned above. How does language matter to matter?

To answer this question, we have to start with elaborating how language can be understood. Speaking is not the representation of a separated world and is not mere representations in a consciousness: "words, vowels, and phonemes are so many ways of singing the world ... they are

extracted from [objects], and literally express their emotional essence (Merleau-Ponty, 2014, p. 193). Language is the expression of the perceived world, not as representations, but as expressions of the world itself.

The language is learned as a tool: "As for the sense of the word, I learn it just as I learn the use of a tool – by seeing it employed in the context of a certain situation," (Merleau-Ponty, 2014, p. 425). The language used is linked to being in the world and using and dealing with things. The use-object as the cultural object opens the subject to the intersubjective world (Merleau-Ponty, 2014, p. 363). When the subject relates itself to the use-objects, the other is at "near presence" in the way these objects are understood. As stated above in this chapter, the subject relates to cultural objects through the use of them, so the hammer is understood, not as an object of a certain size or weight, but rather as a tool for hammering (to use a common example from Heidegger). The other is partaking here in the sense of anonymity, because in relating to the object I relate to in as an object "one uses", for example as one uses the hammer for hammering. The action of the other is thus already implied in my understanding of the world.

The way language is used is through communication, and communication is always, being communication in the sense of symbolic language, directed at another human being. As written above, the body is the implied third part in the object-horizon structure. When it comes to meaning there is also a vital third part to the subject-object relation. This is the third part of the relationship between perceiver and perceived: the other. The other is always already implicit in the structure of meaning.

There is no hyle [matter] and there is no sensation without communication with other sensations or with the sensations of others; and for this very reason, there is no morphe [form] and no apprehension or apperception that would be charged with giving a sense to an insignificant matter, and of assuring the a priori unity of my experience and of intersubjective experience. (Merleau-Ponty, 2014, p. 427)

It is only through communication with the other that things and phenomena can crystallise as meaningful for the subject. Essential ways humans communicate is through language (Merleau-Ponty, 2014, p. 370), and it is through language that the world can become meaningful, thus, language plays a central role in the perception of the world.

When perceiving the world, I do not perceive a world that is closed for others (Merleau-Ponty, 2014, p. 427-428). It is not a world merely existing for my personal perception. A gesture made by another subject is not a gesture that is seen as a mere object. When another subject points

at something in the landscape, the gesture is understood as a way of gesturing the perception of the other subject: "it seems to me that my gestures invade Paul's world and guide his gaze," (Merleau-Ponty, 2014, p. 428). The other becomes a person in the same sense as I am a person, a person living in the same world as I do, and even though the intentional arc is a historicity consisting of my history of past, present and future, being in the same world this background is shared by me and the other subject.

How does this other exist for me? The subject does not relate to the other as an object. The perception as part of the structure of the subject is not towards an "unorganised mass", but rather towards the action of other subjects (Merleau-Ponty, 2015, p. 166). This has been shown in the fact that the world always is part of the notion of meaning. The world is not a mass that needs to be structured by the human, but rather what calls for our attention.

Merleau-Ponty focus on knowledge, since it is by knowledge, and not reality itself, we should understand form (Merleau-Ponty, 2015, p. 143). It is to have knowledge of things that is the important thing, and knowledge is achieved through structure. This is a conceptualizing of the world as perceived. The communication between the subject and another subject is possible because it is a shared world.

It is because we are bodies in the world that we can have a shared world with the other and this shared world is articulated both through bodily gestures and through verbal gestures. Both these gestures are part of the way humans are in the world as the fundamental way they are in the world. This means that the epistemic perspective on the materialisation of phenomena as the world appearing must be understood through perception. Because communication and language play a part in the creation of meaning, humans are in a privileged position to grasp meaning, also since this meaning is the result of the structuring of a corporeal subject, but this is not independent of the world. The world materialises through the dialectical relation between human and world.

VIII. Conclusion

The point of this chapter has been to introduce the phenomenological understanding of the world as a meaningful phenomenon, trying to give an account for the epistemic perspective that is missing in the theory of new materialism. Merleau-Ponty is able to elaborate a theory of this perspective through by starting from the experience of subjects. It is through the human structuring of the world – an intersubjective world – where language plays a central role, that the world can give itself as

meaningful. His approach gives answers to the question of what nature is, what role humans play in this world and how materialisation of phenomena happens that are different from the answers from new materialists.

Nature is by him explained through qualitatively different levels of existence: the physical order, the vital order and the human order. The different levels Merleau-Ponty elaborate are different levels of complexity. The physical order is the order of things, what Merleau-Ponty calls matter. In the physical level of things, there is correlation. Things related within by forces which creates stable structures, in form of correlation. The vital order is when the matter on the physical level reach a higher level of complexity which contains life. The organisms and animals on this level does not relate to themselves through correlations, but rather through signification. It is not as if the animal merely has a reflex to a stimulus. Between the stimulus and the reflex, the animal has a room for action. This room for action enables the animal not only to react but to act in a way making the situation meaningful for it. This signification is not, however, the same as the signification operating in the human order. The human order is the organisation of human beings, and this level has a special role in the structuring of the world. Humans act in the world through bodily and spoken gestures, making the world meaningful.

Here, humans are in a privileged position because the structuring of a perceiver is needed to articulate the world as meaningful. Meaning is dependent on symbolic language, thus in relation to the subject. Language is a fundamental aspect of the human existence and is part of how humans relate to the world. This does not mean, however, that language is disconnected from the world. Merleau-Ponty does not support a representationalistic understanding of the relation between language and world, rather, what he proposes is language as embodied, in relation to sensing.

When sensing the world, the world is given as meaningful constellations, as phenomenological fields. This happens both trough bodily and verbal gestures. It is through these gestures that we are in the world and can understand it. Gestures structure the world in a way that is meaningful. The world is experienced through language. The phenomenon materialises as being present to an embodied subject. The world is given to the subject, materialises phenomena, through the sensing of an embodied subject. The world is given as present to the body as a practical field – use-objects. The body relates to this world, and is in the world, moving in and with the world. It is through this movement that the world appears and can appear as meaningful. Communication with the other is important for the materialisation of phenomena. Only through communication can the

world be sensed, and phenomena materialise. When gesturing in the world, the gesture is always being towards something or someone. The gesture the way I show my perception to the other and the way the other show me her perception.

However, Merleau-Ponty is not, as we have seen, an internalist. That is why perception is only partially what is giving meaning to the world. The other component that is partaking in structuring the world as meaningful is the world itself. Perception is not a structuring of an unorganised mass, but rather a structure creating meaning in a world that is already there. We know that the world is already there because we have a naïve contact with the world. Our trust in the world comes from the natural attitude. Both the perception and the world are important for meaning is evident in the object-horizon structure. This structure suggests that the horizon – the background on which all things are perceived – is always the part of precepting an object. Because of this, the object is always understood as a part of a phenomenon, and the way we understand the object cannot be taken out of the context of which it is perceived.

In understanding the world as partaking in the notion of meaning, but at the same time being dependent on the structuring of perception, the theory of Merleau-Ponty transcends both the new materialistic phenomena as physical reality and the Kantian notion of phenomena as appearance. The phenomena are the things-as-they-appear, but, at the same time, what is appearing is the world itself, and the notion of meaning is in the world and not in consciousness. Thus, he is able to articulate how humans relate to the world and how language matter to human understanding of the world. Is this, however, the form of anthropocentrism that has been critiqued by new materialists? As we will see in the following chapter, I will argue that the phenomenological understanding of matter, phenomena and the human role enables a new understanding of humanism grasp the importance of materiality.

Chapter 3. Establishing a New Materialism

I. Introduction

It is now interesting to turn to Diana Coole and her claim that Merleau-Ponty is a new materialist. In *Merleau-Ponty and Modern Politics after Anti-Humanism* (2007) she states that Merleau-Ponty is to be understood as a new materialist based on his theory of the body and the role of matter to the notion of meaning. This chapter will argue that it is too simple to name Merleau-Ponty a new materialist based on this since there is a vital part of his philosophy that is contradictory to the views of the new materialists. I rather agree with Barad's and Bennett's opinion on the matter: Merleau-Ponty is not a new materialist because he has as his focus the human experience, proposing that a structure of perception is necessary also on the level of physical and vital things. I will, however, argue that position is a better position when looking at the materialisation of phenomena.

In the two previous chapters I have elaborated on the theories of new materialism and phenomenology regarding the problem of the phenomenon. As we have seen thus far, the theory of new materialism, here presented with Bennett and Barad, explaining materialisation of phenomena as physical realities, thus explaining the world "as it is", whilst the phenomenology of Merleau-Ponty start from the human experience to explain the world as it is lived by bodily subjects, thus phenomena are not facts about the world "as it is", but rather the way the world appear to the subjects. The stating point has to be this corporeal subject, according to Merleau-Ponty, because the different levels of organisation that constitute the world, the order of the physical, the vital and the human, are dependent upon a human structuring and perception.

However, looking at the projects of both philosophical theories, they seem to articulate several of the same points. Both new materialists and phenomenologists want to understand matter as more than passive things by showing the partaking of matter and organisms in constituting a meaningful world. When considering this, is it then possible to find a close similarity between the two theories? Also, is it possible to conclude that Merleau-Ponty is a new materialist?

In this chapter, I will discuss these questions based on the claim by Coole. I want to argue that Coole is wrong in her definition of Merleau-Ponty as a new materialist, and I will prove this based on the theories presented in the two previous chapters. Rather, I am going to argue that the phenomenological approach is better suited than new materialism to give an account for a different

solution to the problem of phenomena as introduced by Descartes and Kant. Through the phenomenological approach, one can articulate the materialisation of phenomena *and* the epistemic perspective of how phenomena appear to humans. What Merleau-Ponty offers is a form of humanism, but not in the sense of anthropocentrism that some critics accuse him of, but a fragile humanism taking into account the vulnerability of corporeal subjects in the meeting with the world, as a body being vulnerable in the interaction with the world. Elaborating this is needed to understand matter in a new way, in a way that elaborate our relation to this matter.

II. Phenomenology is not New Materialism

Coole claims that one can place Merleau-Ponty within "the new materialism" because he offers a new understanding of the relation between subject, object and the world, as an alternative to a reflecting consciousness. The consciousness is exchanged for a corporeal subject in constant interaction with the world. In this dialectical exchange between subject and world the matter itself is important and plays a vital part:

It is no longer then sufficient, when confronting the epistemological problem of subject-object relations, simply to invoke their dialectical reciprocity at the point of knowledge (and even less to claim everything is discursive inasmuch as we can only invoke the nondiscursive by speaking *about* it). Instead, materiality and ideality, matter and meaning, mind and body, must be shown to be irreducibly interwoven and folded at *every* level, from the corporeal to the philosophical. It is this sense that locates Merleau-Ponty's philosophy within "the new materialism", (Coole, *Merleau-Ponty and Modern Politics After Anti-Humanism* (2007), p. 162-163).

Because of the new understanding of the dialectic relation between the subject as corporeal, materiality, meaning and the world, Coole argues that Merleau-Ponty should be understood as a new materialist. He offers an alternative to a Kantian understanding of phenomena, and this new alternative takes into account the fundamental interaction of the body and the world.

This is an alternative to the representationalistic view on the relation between humans and world. Things do not exist as static objects of which subjects give meaning based on a language that is detached from the matter. The question for Merleau-Ponty is not how one can understand the relation between language and matter as two spheres being fundamentally separated. Rather, as we have seen in the second chapter and will come back to later in this chapter, language and matter do not exist separately. However, even though Merleau-Ponty offers an alternative to the

representationalistic or internalistic understanding of the notion of meaning, it is wrong to place him within the same framework as new materialists such as Bennett and Barad.

A reason for this is, as presented in the second chapter, the essential role the human perception has for the structuring of the world. Coole acknowledges the existential aspect in Merleau-Ponty's phenomenology and the fact that he goes back to the experience to elaborate how the world emerges, and even cites him in writing: ""We must rediscover the origin of the object at the very core of our experience; we must describe the emergence of being" and with it, a "certain energy in the pulsation of existence"," (Coole, 2010, p. 93). Her claim that he is working within a new materialism must then be based on the fact that he criticises and gives alternatives to theories of phenomena that places the phenomenon inside a consciousness. She explains that in phenomenology as well as new materialism the materialisation of phenomena is not up to a mere human consciousness but is rather happenings of the world.

However, there are vital differences between phenomenology and new materialism. Barad herself is very clear when it comes to if her phenomenon is the same as the one articulated in phenomenology:

Crucially, the agential realist notion of *phenomenon* is not that of philosophical phenomenologists. In particular, phenomenon should *not* be understood as the way things-in-themselves *appear*: that is, what is at issue is not Kant's notion of phenomena as distinguished from noumena. (Barad, 2007, p. 412n30)

The way to understand new materialistic phenomena and the materialisation of these phenomena is not to look at how things appear to the subject, and it is not a question of things as pre-existing in the world can be grasped as phenomena by a consciousness. Phenomena exist prior to – and independent of – human engagement in the world, and so there is not a problem of the "appearance of phenomena" at all, phenomena are physical realities.

What she proposes is rather a new way of understanding matter, not as pre-existing the phenomena they are part of, but as phenomena themselves always in the process of becoming. Phenomena are organisation of matter happening on an ontological level. Ontological entanglements show the inseparability between all actants. As written in the first chapter: phenomena are "relations without preexisting relata," (Barad, 2007, p. 139). Nothing exists prior to phenomena, and so the most important question is what these phenomena are, not how they appear as secondary to the existence of the world.

Rather, phenomena should be understood as constellations of a number of forces working together and against each other. Phenomena are constellations of actants that intra-act. These intra-actions are ways in which actants can make something happen, be self-organising, thus producing effect (Bennett, 2010a, p. 24). Intra-actions are relations between matter that construct phenomena and is the way matter make up the world. Nothing exists outside these intra-actions.

All bodies, not merely "human" bodies, come to matter through the world's iterative intraactivity—its performativity. This is true not only of the surface or contours of the body but also of the body in the fullness of its physicality, including the very "atoms" of its being. ... "Human" bodies are not inherently different from "nonhuman" ones. What constitutes the "human" (and the "nonhuman") is not a fixed or pregiven notion, but nor is it a free-floating ideality. (Barad, 2003, p. 823-824)

All actants are ontologically the same, and so there is no actant that has a privileged position over the other actants. It is the same intra-actions that constitute both human and nonhuman bodies. Thus, ontologically, all actants have agency the same way, even though the way they act is different depending on different actants.

Since the world is an entanglement of different intra-active practices, new materialists propose a new understanding of causality. Causality is not a single sequence of cause and effect but the whole web of intra-action made by different actants. To understand these entanglements, it is impossible to do so by isolating different models of cause and effect.

While Merleau-Ponty talks of phenomena as constellations of objects and subjects in meaningful dialectical relations, new materialists, stressing the ontological status of phenomena, that phenomena make up spacetime itself. Time and space are not in the world as timeless facts but are rather made up through the becoming of the world. Materiality is the becoming of something meaningful, and so spacetime is understood through becoming.²³

Instead of believing in objects that are prior to the world, they believe that the world is structured through intra-action within the world where a series of events, where things intra-act a phenomenon creating agential cuts and boundaries, make up the world as it happens. Here both what is called nature and culture is at play and are forming together. To explain how the world is becoming, one has to look at all the components of an event to grasp the ways things change and

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²³ Merleau-Ponty criticises the modern physics of Bohr to be stuck in understanding space and geometry in an Euclidian sense. This, new materialism moves away from. They are not, when talking about actants or apparatuses, talking about them as something in time or space, but as making up this itself.

form. In this way, a human perspective on the problem of phenomena, as we can find in Kantian philosophy, is exchanged for a relational materialisation of phenomena.

Human perspective in itself is not a problem for understanding the materialisation of phenomena as dependent on the actual matter. Merleau-Ponty demonstrates this going to matter itself through the body and that the body places the subject as always already in the world:

it is not just essential that I have a body, but also that I have this particular body. It is not merely the notion of the body that ... is necessarily tied to the notion of the for-itself, but the actual existence of my body that is indispensable to the existence of my "consciousness", (Merleau-Ponty, 2014, p. 455).

The specific bodies we are gives us access to the world. This is always an actual body making us space, being open to the world as it gives itself to the subject. So, the body stands in a relation to the world itself. The world is open to us only as we are corporeal subjects.

It is only by being situated bodies that we can articulate the structure of the world. Form is what makes it possible talking about the world as meaningful in the first place, and it is to describe both the ontological structuring of the world and the epistemological structuring of the world. Thus, there are two aspects of form: there is a static one explaining the structure of perception that is static in the sense that the perceptual structure stays the same, and there is a dynamic structuring of the world where the world structures itself with the perception of a subject in a spontaneous way.

Form is not only something that exist in the world itself, it is not the self-organisation of the world as Bennett and Barad propose. Every structuring of matter or organisms are based on a more fundamental form of structuring, which is that of the human perception (Merleau-Ponty, 2015, p. 143). Humans are already an implied term in the structuring of the world through form.

The structuring of the world, the organisation of the world, happens through human perception, and so the structures that give the world meaning is not structures existing in the world itself, but structures letting the world appear to a perception. Perception is the access humans have to the world, a directedness or an openness to the world that makes possible the appearance of this world. The perception has form as a primary aspect, and it is through this perception as form that the world can be grasped as something meaningful at all. This perception allows us to have both directedness and openness in and to the world. We are always being towards something in the world in the meaning of our perception through the body is always already being towards something. Because the subject is always a corporeal subject, the perception is always situated through the body making possible meaningful performative practices. Performative practices are linked to the

specific human body, the subject is a corporeal subject. These practices are perceptual and gesticulating practices performed by a human.

Starting from the human experience one has to start from the being-in-the-world because we are in the world as specific subjects seeing the world from specific situations. The body is not in the world as making judgements of the world. Rather, the body is a sensible body perceiving the world through the movement of this body. Gestures articulate the world as meaningful since gestures open up the subject to this world. They are a practical interaction with the things in the world, and what opens the subject up to a horizon of possibilities. We are part of a phenomenological field through gestures and the gesturing happens as action to what is presented to us in this phenomenological field. We relate to the field with practical intentions. The subject is always towards the world and in this world. Through movement the body, the subject can explore the world and it is on the basis of this that one can have judgements about things.

The corporeal subject as the access to the world means that Merleau-Ponty offers a perceptual access to phenomena, rather than a relational one that is offered by new materialists. "The agency of assemblages is positioned in contrast with the embodied agency of phenomenologists like Merleau-Ponty," (Sparrow, The End of Phenomenology (2014), p. 176). Seeing the perception as primary for the structuring of the world differs greatly from the decentralisation of the subject as having a privileged position that is offered by new materialists, and so, one should not understand Merleau-Ponty as a new materialist in the sense of the new materialism presented by Bennett and Barad. The materialisation of the phenomenon is not merely physical facts but has a perceiving component to it making it dependent on a subject, and the phenomena as physical facts are in themselves dependent on structuring. Since we are embodied the question must also be how the phenomena can appear to us. Hence, the relational theory of the materialisation of phenomena that new materialists offer, is not how the materialisation happens according to Merleau-Ponty. To him, the phenomena as becoming something is related to the appearances for a subject. If the structure and form of matter is dependent on perception, how then, are we to understand the role of the nature (as both matter and organisms)? Besides, how can nature matter for the materialisation of phenomena?

III. Nature as Discontinuous

Both new materialists and Merleau-Ponty wants to establish matter and nature as something more than passive things to understand how phenomena are given as meaningful constellations. To new materialists everything is matter, but this matter is always something more than mere materiality (Coole & Frost, 2010, p. 9). Matter is not passive, rather, matter is alive, capable of creative production through thing-power. Matter is vital and vibrant and has the power of self-organisation and to produce effect. Bennett does this by elaborating a form of vitalism. This vitalism is not the kind of critical vitalism that was seen with Driesch and Bergson – a vitalism unable to see the vitality of matter, rendering the matter mechanistic according to Bennett – but a vitalism that takes into account the fact that matter is vibrant and that sees vitalism as the force producing effect. The garbage hills show us that this is possible by continuing to evolve and change and intra-act.

As presented in the first chapter, Barad draws on quantum physics to explain the theory of nature. In the case of intra-action, she takes Bohr's notion of apparatuses. To make an example arguing the case of agency in matter, Barad turns to a notion of apparatuses. Bohr explains apparatuses as the measurements used in a laboratory setting to explore the scientific object. What Bohr finds, according to Barad, is how the equipment used to understand a scientific object is partaking in the answer given through the wave-particle duality paradox: "either we can find out which slit an electron goes through by using the which-path apparatus ... or we can forgo knowledge about which path the electron goes through (using the original unmodified two-slit apparatus," (Barad, 2007, p. 106), where the first apparatus will give a pattern of particles and the last apparatus will give a wave pattern. In the wave-particle duality paradox measurement has everything to say regarding whether an electron will "act" as a particle or a wave. Hence, apparatuses have a form of agency. Barad broadens this theory by giving this sort of agency to all actants, also outside the laboratory setting. What apparatuses does is making the nonhuman agency visible. These measurements are what enables boundary-drawing practices to happen, thus meaning is dependent on the nature of apparatuses.

As we have seen, Bennett understands these actants as having different agencies. Nonorganic actants, legal actants or minerals have different ways of producing effect. "The vital materialist must admit that different materialities, composed of different sets of protobodies, will express different powers," (Bennett, 2010a, p. 31). She admits to a difference in the different way actants have agency, but this is not elaborated in the way Merleau-Ponty is able to. This is because

her project is less concerned with elaborating a theory where humans do not stand in relation to matter. Bennett expresses herself that an important part of her project is to articulate nonhuman agency so that humans can understand the importance of this type of agency also in cultural practises (Bennett, 2014, p. 85).

Hence, in some instances, Bennett's theory seems more similar to the project of phenomenology than the theory of Barad. However, Bennett does not take into account to the same degree as Merleau-Ponty that nature is discontinuous, and she is not able to elaborate now nature is discontinuous and consist of qualitatively different levels of organisation.

To the discontinuous nature that Merleau-Ponty is able to give an account for, the notion of irreducibility is important. Since the different orders of the physical, the vital and the humans has to be understood as whole structures in specific relations they cannot be put outside this context. Neither can one level be reduced to another. As the example mentioned in chapter two, a dog cannot be understood as consisting of a tail here and legs there. The whole being the dog is having to be understood as a whole. The same goes for physical structures and subjects. Merleau-Ponty's theory of phenomena are, rather than being notions of entanglement, composed constellations of meaningful structures. This is constellations of physical objects, such as a chair being a meaningful structure depending on certain attributes, vital organisms, such as a red rose consisting of rose petals in red and a green stem with leaves and thorns. All levels consist of specific attributes making it into this specific order of signification. This does not necessarily mean that there are huge leaps between the orders of the physical, the vital and the human, but that when moving from one level to the other there is not merely a quantitative change but a qualitative change making it into something else.

As we have seen, Merleau-Ponty too proposes a theory of causality different from the classical notion of causality. To understand the notion of meaning one has to understand phenomena as whole structures. In classical physics the belief has been that to understand a relation one would have to divide the relation into smaller sequences of causality. Instead, causality has to be investigated as complex structures of exchange. Causality is in phenomenology, as in new materialism, a nonlinear causal organisation of movement. For Merleau-Ponty this is a dialectical movement; a nonlinear dialectical movement where objects and subjects interact.

How does Merleau-Ponty elaborate the different orders of discontinuous nature? How are different physical, vital and human nature different? Moreover, what does this elaboration tell us

about the different ways these levels of nature are in the world? The difference between the physical and the vital levels of organisation is that of correlation and signification. Correlation is, as explained in the second chapter, the situation where there is an interdependence between something happening and something happening because of that (like cause and effect if one does not isolate the correlation to isolated sequence). When I press a letter on the keyboard of my computer this correlates with the letter showing up on my computer. Signification is something qualitatively different. In the action of the animal it is not a situation of stimuli and reflex. Rather, the animal can relate to a stimulus in a way that makes the action meaningful for it, as the action of an animal that is chased or in the fear of being captured.

This is because animals, like humans, have life. When something goes from being part of the physical order to being part of the vital order what is introduced is the notion of life. Life is what is something more than pure being or pure concept. The animals show life in our relation to it. If I try to capture an animal, it will show life by reacting and responding to my actions.

Merleau-Ponty is able to account for life in organisms without turning to any sort of vitalism. This is necessary, for turning to vitalism is to in some sense trying to explain a force that we cannot know what is. As a critique of vitalism he points out that vitalism in itself have prepositions that undermine itself: "the critique of mechanism leads back to vitalism only if it is conducted, as often happens, on the plane of being. To reject the dogmatic thesis according to which the unity of the organism is a superstructure supported by a really continuous chain of physicochemical actions would then be to affirm the antithesis, also dogmatic, which interrupts this chain in order to make place for a vital force," (Merleau-Ponty, 2015, p. 158). To explain life through vitality is only necessary if one buys into the dogmatism that physico-chemical processes can explain reality.²⁴

Coole comments on the animal agency that is possible within Merleau-Ponty's phenomenology: "animals' bodies also enjoy agentic capacities," (Coole, 2007, p. 179), and this is true for the structuring of the vital order. In the vital order, as advocated in the second chapter, is not reducible to a relation of stimuli and reflex which means that the animal or organism not merely act as a reflex to a stimulus, but has a space of action so that it can act in a way making the milieu meaningful to it.

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²⁴ "Appealing to a vital force as a principle of explanation does not solve the problem but simply conceals our inability to overcome it: vitalism is essentially an expression of powerlessness," (Barbaras, 2005, p. 216).

Animal, or vital, agency is not, however, the same as that of the human agency, and the difference is not merely a quantitative difference that would entail only a gradual difference between the animal and the human. When Merleau-Ponty explains the different between animals and humans he writes that while animals merely have a milieu (Umwelt) it relates to. Humans also have a world (Welt). The Umwelt is the behaviour connected to the surroundings. In the Welt there is a possibility of new structures being formed. The nature is discontinuous and so the human nature is qualitatively different from that of the animal.

According to Merleau-Ponty humans are the only ones creating new structures. They are able to do this because they, in their actions, go further than vital needs, a possibility neither physical objects nor vital organisms have. Seeing the example with minerals it seems that Bennett has a point in claiming that even nonorganic actants have agency. In new materialism what they introduce is a notion of agency in nonhuman actant that is productive. However, according to Merleau-Ponty, the structuring of nonhuman actants will only be meaningful when there is a human perception these actants can appear to as meaningful.

The human order is of highest level of complexity. What defines the human order as qualitatively different from that of things and organisms is how they relate to the world through use-objects and language, and that they are able to move beyond the sphere of mere vital needs, as just mentioned. The signification happening on the level of subjects is thus different from that of animals. We relate to the world as a world of use-objects, and the bodily and verbal gestures are specific for this level. Language is not merely an object for the subject, but rather the way the subject relates to the world. The use-object, as a way of interacting with the world, are objects that we relate to not as internal concepts of the mind, but in the engaging with the world. The human order has two aspects making humans nonreducible to the vital order. The first is the relation to the world as use-objects. We relate to the world in a practical way through objects that we use, objects that are filled with cultural meaning. The second is relating to the world through the symbolic. A way the use-objects get cultural meaning is through the symbolic, or language. Language is, as we have seen, the way subjects are in the world, and language gives subjects access to the world. Like gestures, language is a bodily expression as a verbal gesture, not as already constructed thoughts or meanings, but as a part of the expression of the world. This is not, however, something placed outside the lived world, but is embodied and is has a source in materiality. These aspects are not only secondary attributes but is a primary aspect of the human structuring.

Even though both theories articulate phenomena as nonreducible and too complex to be captured in easy models, Merleau-Ponty has the only elaboration of how nature appear as meaningful by explaining nature as discontinuous. Seeing as the world is discontinuous with humans as the highest level of complexity, how does this not mean that matter is passive, or that the theory proposed by Merleau-Ponty can be reduced to anthropocentrism?

IV. Something Other than Kantianism

A critique from new materialists is that Merleau-Ponty works within the realm of anthropocentrism, and that anthropocentrism leaves matter to be passive. Is this what Merleau-Ponty does? Because of the structure of figure-background, what Merleau-Ponty shows is the perceptions dependence on the world itself. The world is not a construction of the mind, but a dialectic movement between perceiver and the world. Merleau-Ponty presupposes a human structuring the world as meaningful.

This has given new materialists – writing within the tradition of posthumanism – reason for criticising Merleau-Ponty for being anthropocentric. What is happening throughout the theory of new materialism is criticism of the placing of humans in positions higher than other actants. Barad has this criticism towards Bohr, placing the human scientist as central by focusing of the laboratory setting making humans vital to understand the phenomenon. Even though he sees the importance of apparatuses being a part of the phenomenon created, it is nonetheless a phenomenon dependent on a perceiver. The critique of focusing on humans is also given to Butler placing performativity as a cultural aspect of the human bodies, thus being unable to see the performativity of other actants. Bennett specifies this in commenting that no force is of higher status in a phenomenon. All actants are ontologically equal, and so, placing humans in a privileged position is a failure to see the agency of other actants.

Merleau-Ponty does not see all matter as alive. He can be accused of leaving matter dead. According to Merleau-Ponty the organisation of the world depends on a perception, and so what he is investigating is the human experience giving humans access to grasp the world. But this is, as written in the second chapter, not a way of turning to representationalism or Kantianism where the world is structured in consciousness. The world is only comprehensible through engaging in the world where matter too is for Merleau-Ponty something unpredictable and a part of the structuring of the world.

Actants are creating effect through the constellations they are part of according to new materialists. The example Bennett uses here is the constellation of a bottlecap, a dead rat and the other actants being a part of the phenomenon. This is something Merleau-Ponty also considers. The example used in the second chapter to explain this is the perception of a lamp. Because the lamp take up space it is possible to move around it and this is what makes it possible that when perceiving a lamp the subject does not see a flat surface, but rather sees the lamp from the perspectives of the walls behind it and the table it stands on. Phenomenology too explain how things mirror each other, creating a phenomenon even though the starting point is the human experience. Merleau-Ponty is able to explain this because he sees the body as the way things mirror each other. It is not left as unclear at it sometimes seems in the new materialism of Bennett.

Even through Merleau-Ponty's perspective is human, it is not a sort of internalism. The project of acknowledging things and organisms as active is an interesting project because it shifts the belief in two ontological realms of nature and culture. This makes us able to understand the world to a larger degree because we can be aware of how things interact and influence each other in a more entangled and severe way, rather than when just looking at human behaviour and action. However, believing in only human actants is something Merleau-Ponty abandoned by going beyond the debate of externalism or internalism. He is able to do this by elaborating the figure-background structure. Seeing as the background of an object is always part of the phenomenological field, the object itself must be understood as part of this phenomena. Since it has to be understood on this background, the perception as a perception of the actual world is required. The structure put forward in his phenomenology shows how the human structure of perception is dependent upon the real world, and that objects in this world is vital for the things to become meaningful.

It is these real objects in the world that the subject aims at in the gesture. Through gestures – both bodily and verbal – the subject can communicate, and communication is vital to the materialisation of the world. As written in chapter two, there is no matter without communication, and this communication inscribe language and the other in the structure of meaning. The language itself is inscribed in the world. It is not a representation of the world according to Merleau-Ponty. Rather the language is the way humans have access to the world, and language comes from the world itself, as a use-object.

The world is a world "out there" that exist on its own. This Merleau-Ponty shows by the figure-background structure. When exploring an object, the subject also sees as a part of the field a passive part of the field, not the active part of which the subject is focused on, which is called the horizon. The horizon is always a part of the perceptual field and so the object is precepted, and should be understood as, having a specific background in which one can grasp the object. This background assures that there is always a world in which the subject perceives. There is something escaping the perception, and therefore, the world is inexhaustible.

So, the phenomenological understanding of the materialisation of the phenomenon and nature as being part of the notion of meaning is something other than a Kantian understanding of meaning and phenomenon. While Kant's solution to the problem of the phenomenon made him distinguish between the thing as it appear and the thing-in-itself, and, at least from Barad's point of view, resulting in a form of internalism,²⁵ Merleau-Ponty offers an understanding of the phenomenon as the dialectical exchange between the (actual) world and the perceiving subject.

On this basis I propose that the critique of Merleau-Ponty as having an anthropocentric theory is not deserved, and this we can see with his re-understanding of humanism:

Merleau-Ponty wants to displace the humanist – anthropocentric – philosophies that cover over the interworld. He struggles to write from the perspective of Being, the lifeworld, to express or be the expression of the things themselves. He wants to show that subjectivity and consciousness are not the source or cause of knowledge but emergent processes – openings – within the genealogy of truth. (Coole, 2007, p. 177)

He does not present a new sort of anthropocentrism because he finds human structuring central. The dialectical relation between the world and human structuring assures the world as being there, and so knowledge or meaning has to be understood in this dialectical exchange.

Both Merleau-Ponty and the new materialists believes the things to be inexhaustible for human actants. Bennett calls this the nonidentical (taking the term from Adorno). The nonidentical is that which is not explained by a concept (Bennett, 2010a, p. 13). It is not as if new materialists believe it is possible to grasp things and their intra-action completely, and Barad especially has been clear on this point. They do not believe science, for example, can give us the whole truth about the world. The point is rather to be aware of how things and organisms plays a role, also in

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²⁵ There are readings of Kant taking the distinction between phenomena and noumena not as a form of internalism, but rather understands Kant in a more empirical realist where the outer world is really there, where the thing-for-us and the thing-in-itself is two approaches to the same thing.

what today is regarded as human culture. What escapes us in the theory of Merleau-Ponty is also a concept of something escaping the understanding of subjects, so that humans are incapable of grasping the world as an absolute comprehensible phenomenon. "there must be hidden sides of things and things "behind us" if there is to be a "front" of things, or things "in front of us" and, in short, a perception," (Merleau-Ponty, 2014, p. 289). This he does through the theory of figure-background structure.

Coole suggests that even though Merleau-Ponty's phenomenology is a sort of humanism, one should understand his humanism in another way than the traditional understanding. Merleau-Ponty's humanism is a new understanding of humanism according to Coole since the theory offered by him understands matter and organisms as crucial partakers in the process of the world becoming a meaningful place, thus one should not understand the phenomenological position as the Kantian position. I shall return to this in the conclusion.

V. How to Understand Materialism

Thus far it has been established that a human is necessary for the structuring of a meaningful world but that this structuring is not to be understood as anthropocentrism, and so the new materialistic critique of phenomenology might not be well deserved. Even more critical is that new materialists are not acknowledging the human structuring going on in the world. Bennett's theory that different levels of organisation exists, and that different actants are actants in different ways presupposes a human structuring that she does not acknowledge, a structuring only making sense when presupposing this structuring done by a perceiver. The different levels of organization that Bennett mentions are constructed by human beings. They do not exist from a pure material perspective.

When new materialism places phenomena within the ontological realm as physical facts, the focus moves from how phenomena can appear. What is lacking is to elaborate a theory of how this happens. The Kantian problem of how to explain how things can have an independent existence and at the same time appear to a consciousness is not answered, but merely put aside.

In addition, new materialists are unable to explain the way phenomena are given as meaningful to a human actant – they cannot explain the relation between matter and language. Their notion of meaning is through an analysis of material-discursive practices, as we saw in the first chapter. Material-discursive practices are practices where things materialise. This performative materialisation new materialists find in all things, and only through specific practices

can things be given as comprehensible or not. Things can only be understood through performances in the world. New materialists reject a distinction between the physical world and human thoughts; there is no difference between the human realm, where language plays an important part, and the physical realm of matter. How it is possible to both say that human meaning and thoughts are the same as that of the physical order seems unlikely. The discursive aspect of the notion of meaning is in new materialism reduced to pre-linguistic ways actants produce meaning, as a fundament for the language. They do not go further than this, and so they do not articulate meaning as connected to language. What enables boundary-drawing practices as material-discursive practices to happen are the apparatuses used, or in a new materialistic sense: matter becomes definite through intraacting. Thus, they are not able to find how language and matter interact in the notion of meaning and with that is unable to explain how the world of matter become meaningful to humans. If the material-discursive practices were all that was necessary, language would be superfluous or the meaning for humans would be something else than how the phenomena would matter to themselves.

The way of understanding knowledge that new materialists come to with the theory of intraaction is something new. Knowledge has now an aspect of responsiveness. Instead of knowledge being some sort of have a complete understanding of the world defined by concept, knowledge is being able to response to the world of ongoing performances in a meaningful way – being responsable. That is how they can say that not only humans are actants of knowledge. All actants, according to new materialism, can respond to the world in a meaningful way for them. Here they take being responsable to count for all actants, humans as nonhumans.

Both these two parts of the understanding of meaning has lacks regarding an explanation of how we humans are able to relate to the world and understand it with our bodies that are not merely a part of the concrete world but moves beyond what is tangible in the world through symbolic behaviour.

According to Merleau-Ponty the organisation and the epistemic is linked through the body; the way this subject-body is in the world is through gesture and language. Only this, in relation to the other and form can the phenomena appear as meaningful materialisations: no matter without communication. Language is emerging from the experience of the world, and from sensing. There is no matter without language and the other. The crystallisation of "patterns of mattering" is dependent on the structure of the human order.

The word's sense is not made up of a certain number of physical characteristics of the object; it is, before all else, the appearance that it takes on in a human experience, for example my astonishment when confronted by these hard, friable, and melting pellets that fall ready-made from the sky. This is an encounter between the human and the non-human, it is something like a behavior of the world, a certain inflection of its style, (Merleau-Ponty, 2014, p. 425).

The whole meaning is dependent upon the human language (one could even say discursive practices) and so a human actant is already implied. Merleau-Ponty also believes matter has meaning, but this meaning is structured by human perception. For Merleau-Ponty, it is corporeality that enables meaning and structure to matter (Coole, 2010, p. 101). The organisation that Bennett mentions is a problem since these organisations are themselves structured by humans/as meaningful for us.

This is in contrast to the material-discursive practices offered by new materialism, since new materialists have an understanding of meaning and knowledge through such practices. In line with a new notion of the becoming of the world, new materialism offers a materialisation that is nonlinear where materialisation happens through apparatuses intra-acting making different "patterns of mattering," (Barad, 2007, p. 140).

Merleau-Ponty, by explaining how language is corporeal, thus coming out of our bodily interaction with the world, is able to give an answer to the problem of the relation between language and matter. As we saw in the first chapter, when Bennett and Barad explains the meaning as material-discursive practices that make the world meaningful, the discursive practices were places outside the human sphere, as a ground for the human language. However, they were not able to elaborate in what way matter matter to language. By seeing the materialisation of phenomena as perceptual, explaining the existence of the world through the human body, Merleau-Ponty is able to elaborate the relation between matter and language, thus elaborate the epistemological perspective of humans. The new materialistic theory is not only inadequate in elaborating how different actants intra-act, they also lack a theory explaining the human body and how this interact in the world, and thus can have access to the world as it appears.

However, it is interesting that new materialists want to shift the focus of human beings in the centre of attention. This is relevant when talking about the relationship between humans and animals, where it for example can be unclear who's the most forceful (strong) actant is. Merleau-Ponty's objection will nevertheless be that even in this relationship we have to understand the human subject as central because the meaning we can talk about in this relation is defined by the human. This does not mean that the animal is not a vital part as an active organism, but we determine the meaning that comes out of this relationship for us.

We thus, through phenomenology, have arrived at a new understanding of how to understand materialism. An understanding taking matter seriously by acknowledging the partaking matter has in the construction of meaning and at the same time is able to explain the role human and symbolic language has to this. By using the phenomenological understanding of the world, we are now capable of understanding the materialisation of phenomena and understand how we as humans can relate to these phenomena – how they appear to us.

VI. Understanding a New Materialism as Fragile Humanism

With the three preceding chapters, we have hopefully achieved a better understanding of the materialisation of phenomena, how to understand nature, and the role humans play, if any, to this materialisation. Both new materialisms, presented by Bennett and Barad, and phenomenology, presented by Merleau-Ponty, offer alternative answers to the problem of phenomenon, problems that for amongst others raised by Kant. Kant tried to give an answer to the problem of how things can appear to a subject as phenomena, as something we can grasp, but at the same time be things in the world. He ended up with making a distinction between the world as it appears, as phenomena, and the world in itself.

While new materialists do not focus on how phenomena appear to a subject, but rather explains phenomena as physical facts, Merleau-Ponty continues trying to answer the Kantian question of how things can appear to a subject. How are we to understand the subject and the role this subject has in regard to the notion of meaning? Should the subject be regarded as a mind outside the world, or as an integral part of the world? How can we understand the appearance of a phenomenon to a human being? And what role does humans have in structuring phenomena? How are we to understand phenomena — as relations or as structured by a situated body-subject? Moreover, how can we account for nature, and how is nature to be understood?

Both theories understand matter itself as central to the notion of meaning, and that the world is made up of interplay between matter and body. That is why Coole presents us with the possibility of Merleau-Ponty being a new materialist. As we saw in this chapter, she argues that one should understand him as a new materialist since, in explaining the epistemological perspective, he

stresses the interdependence of meaning and matter, and body and world. In a way, she has a point pointing out the dialectical relation that is between the corporeal subject and the world, a dialectical relation that makes matter and meaning impossible to separate. However, it is a misreading of Merleau-Ponty's notion of structure, and his placement of the human body in this structure, to understand him as a new materialist as the theory is presented by Bennett and, especially, Barad.

Instead of the new materialistic position understanding the materialisation of phenomena as relational, where nature and human intra-act as ontologically equal, and thus is equally participating in the notion of meaning, Merleau-Ponty offers a theory based on the embodied and perceptive subject. In his theory, the body is the starting point for understanding a materialisation of phenomena, where meaning is the dialectical relation between the structuring of a human subject and the world that exists for this subject as open to exploration. Because phenomena are understood as meaningful structures nature must be regarded as discontinuous, with levels of qualitatively different beings of different levels of complexity. Here, Merleau-Ponty understands humans as the ones with highest level of complexity, seeing as the human, in addition to having a notion of life to is as the vital order, also have a symbolic level to it, where action is not merely to act in a meaningful way according to structures, but to act is also the possibility of creating new structures. The meaningful world is not only relations of intra-action. What is necessary is an embodied subject agency.

Through the theory of phenomenology, Merleau-Ponty is able to give a new account of materialism that takes matter seriously and at the same time give an account for the epistemological perspective of how this matter becomes meaningful to humans. The materialisation of matter happens as the corporeal subject is in the world experiencing this world through gestures and communication. By taking an approach of experience, he is able to explain the materialisation of phenomena and at the same time explain how phenomena appear to the experiencing subject.

This does not mean, however, that the human is privileged in some sense of Kantian humanism. The humanism argued by Merleau-Ponty is a humanism that goes through the human experience to get to the matter itself – to see matter for how it shows itself to a perception. The phenomenological humanism is not affected by the new materialistic accusation of anthropocentrism because the world is not merely explained as object for the consciousness. What this phenomenological humanism does, is to explain the world as is gives itself through a bodily perception. Only by the structuring of a perception is it possible to talk about meaning. The new

materialistic notion of meaning lacks an epistemic connection to the human body and the human world and is thus unable to elaborate the human experience.

This is a form of fragile humanism. When we understand the humanism Merleau-Ponty suggests we have to understand it in the context of vulnerability, and that is why this humanism is not about placing humans as the ones sitting on truth. Because we are always a specific body, we are open to the world in a vulnerable way. Humanism is about "becoming aware of contingency. It is the continued confirmation of an astonishing junction between fact and meaning, between my body and my self, my self and others, my thought and my speech, violence and truth," (Merleau-Ponty, "Man and Adversity" (1964), p. 241). This contingency teaches us that the world and meaning is dialectical, and it is never fully grasped. The body is in a world of spontaneous organisation and being means being a situated fragile body in an ever-changing world. Being in the world is an endless number of perceptions that make up the world, and we will never be finished with this exploring of the world. Thus, we need a corporeal subject to begin exploring. However, this is a humanism since becoming aware of contingency is about being aware of the relation to which one stands to nature and the world, structuring the world into meaningful phenomena.

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