Intra-Value Conflicts and Nietzsche's Perspectivism

Multiple Perspectives of Values and Tackling Grand Challenges

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ABSTRACT

The prime aim of this thesis is to make intra-value conflicts clearly comprehendible and make clear how such an understanding can contribute to ethical decision-making in our technological age. An intra-value conflict can be described as the presence of different interpretations of what we consider important or desirable within the conceptual boundary of the word, e.g. sustainability or well-being. To make this comprehensible, it is argued that Nietzsche's perspectivism makes for a good candidate to grasp the nature of this notion. Perspectivism can be described as the philosophical theory put forth by Nietzsche in that there are many different worldviews depending on an individual's or group's particular perspective. To make the connection between values and Nietzsche's perspectivism and to contrast perspectivism with other moral theories, a short exegesis is given in the way Nietzsche came to stand in opposition to earlier views and valuations, bringing about his revaluation of all values. This opposition was based on the argument that previous philosophers had largely ignored the perspectival nature of their own views and valuations. In expounding how perspectivism explicates intra-value conflicts, a distinction is made between the cognitive-conceptual, the affective-valuational, and the conative-conflictual elements of perspectivism and intra-value conflicts. In reference to the cognitive-conceptual element, it is argued that we simplify the world according to the kind or constructs that are present to us. In this particular simplification, we equate into our knowledge that which fits one's already existent knowledge, leading to for instance a particular conceptualization of a value. This however, it is argued, could be seen only as a sign and surface world which excludes our affective and conative endowments. In reference to the affective-valuational element, it is argued that we create feelings and emotions that manifest themselves into how and what we valuate. In this particular valuation, we come to value and revere those things that positively increase and aid our affect, setting in motion long-term orientation and conation for the conduct of such values. In reference to conative-conflictive element, it is argued that we tend to subdue a particular interpretation of a value belonging to the self over those of others. In this particular subduing, we reason a reconceptualization of dissimilar value-interpretations, or, enforce an affect – 'effect a change' – in the conduct of values of others. Due to the presence of perspectives and dispositions other than those involved in the direct design and construction of technology, who nonetheless have a bearing on the implementation of technology, a number of perspectives with regard to intra-value conflicts have been described. The other perspectives that are highlighted in this thesis are entrepreneurship, governance, and science. Based on the previously described framework, the perspectival nature of these dispositions, and the presence of intra-value conflicts as a result of it, a solution is provided for intra-value conflicts in the service of Tackling Grand Challenges.

PREFACE

Before extending my thanks to those who helped me in writing this thesis, I would like to start this preliminary statement by shortly shedding some light on why I choose the subject of intra-value-conflicts, as it is rarely by accident that one consciously choses a philosophical subject. This, I think, will be clarifying in terms of the underlying intent of this thesis. My motive to choose this subject is me being captivated by what I consider the awe-inspiring notion of a value. A value is one of those few schematic descriptions that has the ability to express the nature and significance of what a human being considers meaningful. More importantly, the expression of such a valuation can serve as a powerful instrument to guide and direct one individual towards what other individuals consider important and desirable. This captivation connects well to what I consider the alluring nature of ethics of technology. In ethics of technology, values are able to prescribe directions for the development of technology such as the quality of life in human enhancement and brain interface technologies, human dignity in lethal autonomous weapons and enhanced pathogens, privacy in real-time surveillance, and user autonomy in artificial intelligence and swarm robotics, just to name a few. Yet, although there is no shortage of addressing ethical questions in relation to technology upon which sets of principles of right conduct are prescribed, it is my premise that a lot of these moral values can lose their worth once they are written down for the sole purpose of being put on 'paper' for guidance. And thus, rather than just prescribing directions for the development of technology according to certain values, my aim has been to create a better understanding of how different perspectives concerned with the creation of technology valuate, how many misunderstandings can lead to intra-value conflicts, what the root cause of these misunderstandings are, and how a mutual understanding will contribute to tackling our Grand Challenges. In this slightly different route I have taken, I would like to extent my thanks to my supervisor; prof. dr. Ciano Aydin, and my examiner prof. Dr. Philip Brey, for their time and consideration. Their assistance has been valued tremendously. Without their efforts, this thesis would be complete chaos and mayhem, probably extending a few hundred pages. Also I would like to thank all teachers at the University of Twente philosophy department for their inspiration, including those that have left during the course of my studies. In this trend, a specific kind of thanks is extended to Friedrich Nietzsche and all other authors that I have quoted. Nietzsche, among others, has pushed my compulsive obsession for reading, inquiry and burning the midnight oil in novel directions. Lastly, I would like to thank Sabrina Hegner, my previous master thesis supervisor, as I will never forget those who go above and beyond in extending their helping hand in my intellectual development.

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INTRODUCTION

The main research question in this thesis can be clearly formulated as following; how can intra-value conflicts about technology be made comprehensible and how can such an understanding contribute to ethical decision-making? This research question has risen after a number of empirical studies have recently observed that both procedural and substantive values can be *shared* amongst different groups that are involved in or affected by a course of action, whilst simultaneously *both proposing and opposing* a matter of discussion. What appears to be at stake for these different groups, seems to be the discrepancy of value *interpretations* surrounding technology. The particular kind of antagonism and conflict that springs from these different value-interpretations is then characterized as an intra-value conflict.

The intrinsic importance of apprehending this notion of intra-value conflicts can be found in the realization that in order to tackle so-called Grand Challenges, humanity needs to cooperate. The current challenge-based approach that has been put forth by the European Union for instance, has the aim of bringing together "resources and knowledge across different fields, technologies and disciplines, including social sciences and the humanities." This is a trend that can be found in many documents, as policymakers have started to recognize the importance of social-ethical issues and their application in inter- and transdisciplinary collaborations. In 2009 for instance, The Lund Declaration stated that "the identification of the Grand Challenges must engage the major stakeholders including the European Institutions, business, public services, NGOs and the research community as well as interaction with major international partners."

But a potential problem arises when different people have wildly varying interpretations of what they consider important or desirable within the conceptual boundary that is attributed to a certain value. Entering into the sustainability debate for instance, certain people can emphasize on the sustainability of natural resources and thus implying the value of environmental *quality* (e.g. biodiversity, ecological integrity), they can focus on the aspect of development that leads to the values of economic *growth and progress*, or they can even stress intra- and intergenerational requirements that human populations are facing in regard to scarce resources, hence implying the value of *social justice and equity*. In order to align resources and knowledge across different fields and efforts and to achieve fruitful collaboration, it can be considered nothing less than important to understand how and why intra-value conflicts can arise within these collaborations. This understanding will potentially speed up solutions and achieve more impact as is being targeted by for example The Lund Declaration (2015, p.1)

Based on this significance in the face of these Grand Challenges, this thesis aims at contributing to a proper understanding of the normative and evaluative basis for intra-value conflicts with regard to technology. It could be said that such an understanding could be indispensable for the intractability and escalations of many current value conflicts and fundamental to any ethics of technology. In order to answer this research question, the following line of inquiry has been pursued.

This thesis will start by introducing and describing the subject matter. To answer the first sub-question – what are intra-value conflicts – it is made clear what the relatively new notion of intra-value conflicts exactly entails. Based on two explications and subsequent examples, two important elements can be observed in relation to an intra value-conflict. First; people may have a different conceptualization of a value in which they merit different attributes and other content-related aspects that are implied by the given value. Second; even if there is an alleged (linguistic) consensus on content-related aspects – and thus a *perceived* consensual understanding –, ethical forms of application or conduct can still differ.

After clarifying and describing the subject matter, a second sub-question has been formulated which has as its purpose basing the main research question on relevant academic concepts and theories in order to legitimately argue for it. The second sub-question has been formulated as follows; which up-to-date philosophical insights are capable of – or falling short on – explaining the relations between technology and values as well as the multifaceted

nature of values? In chapter 2 called 'A Post-phenomenological Framework,' one approach that has been considered useful is the post-phenomenological approach, which contributes to our understanding of how many of our large-scale social problems – so-called 'Grand Challenges' – can be understood in relation to technology. Although authors such as Don Ihde provide a well argued for analysis of the ways in which reality can be present for people based on the perceptual aspects of interpretation, it is either separated from, or lacking, a conceptual analysis of the affectual aspects of interpretation and is leaving conflict out of its model. The research method and approach in using Nietzsche perspectivism can be considered as justified based on Nietzsche's argument that perspectives are themselves always rooted in affects and their associated patterns of valuation, which Nietzsche considers just as important for our practical and evaluative lives as it is for cognitive life. Hence, when discussing intra-value conflicts about technology, perspectivism is more inclusive as it not only includes conscious perception, but also affection, thereby committing to the way values are emotionally binding. Additionally, with perspectivism drawing its explanatory power from Nietzsche's will-to-power – having as its fundamental starting point processes that have an inherent contradictory and perspectival character – it is capable of explaining intra-value conflicts.

To further jusitify and embed perspectivism in this theoretical framework, a short philosophical exegesis of the concept of values has been undertaken to elucidate the perspectival nature of values. The particular aim and purpose of the third sub-question is to explore; how values relate to Nietzsche's perspectivism. This part of the research is deemed necessary to the make the multifaceted nature of values comprehensible. In the third chapter, called 'Values and Nietzsche's Perspectivism,' a short genealogy has been provided to account for the backdrop for the way Nietzsche conceived of the philosophical exegesis of the problem of value and how he enquired into the conditions which made it possible for it to appear. Central to the problem and condition hereof was Nietzsche's argument that past philosophers had largely disregarded the influence of their own perspectives on their work, and had for that reason unsuccessfully controlled those perspectival effects. In rendering intra-value conflicts comprehendible by what of Nietzsche's perspectivism, a distinction is made between the cognitive-conceptual, the affective-valuational, and the conative-conflictual elements of perspectivism and intra-value conflicts. In reference to the cognitive-conceptual element, it is argued that we simplify the world according to the kind or constructs that are present to us. In this particular simplification, we equate into our knowledge that which fits one's already existent knowledge, leading to for instance a particular conceptualization of a value. This however, it is argued, could be seen only as a sign and surface world which excludes our affective and conative endowments. In reference to the affective-valuational element, it is argued that we create feelings and emotions that manifest themselves into how and what we valuate. In this particular valuation, we come to value and revere those things that positively increase and aid our affect, setting in motion long-term orientation and conation for the conduct of such values. In reference to conative-conflictive element, it is argued that we tend to subdue a particular interpretation of a value belonging to the self over those of others. In this particular subduing, we reason a reconceptualization of dissimilar value-interpretations, or, enforce an affect – 'effect a change' – in the conduct of values of others.

In providing some body to the framework, it is argued that in opening up and revealing the conditions of possibility that make particular technologies show up as meaningful and necessary, attention is paid to a very singular kind of co-constitution: the technological attitude or disposition that is rendering artefacts meaningful. Building on the notion of perspectivism and the framework provided earlier, the subsequent perspectives of entrepreneurship, governance, and science are explored as well. In the fifth chapter called 'Tackling Grand Challenges,' , a number of suggestions have been put forth to tackle the grand societal challenges such as put forth by the European Union in order to deal with the presence of intra-value conflicts.

CHAPTER 1: INTRA-VALUE CONFLICTS

Before explaining *how* Nietzsche's perspectivism within a framework of post-phenomenology provides an explanation of intra-value conflicts, an understanding *of* the separate elements that are involved – intra-value conflicts, postphenomenology, and perspectivism – should be in place. The first step in answering the main research question - how can intra-value conflicts about technology be made comprehensible – is to accurately pinpoint what the notion of an intra-value conflict exactly entails. Before anything else, it is important to recognize that the notion of an 'intra-value conflict' is relatively new, having only really surfaced in the second decade of the 21st century.[1] Pertinent to the novelty of this notion, any conceptual confusion is to be avoided in relation other theoretical constructs (e.g. inter-value conflicts) that might be connected but do not correspond to the same class of entities. Hence, to contribute to a proper understanding of the notion of an intra-value conflict, a few distinctions have to be made before embarking on a study of its philosophical nature.

First, regarding the current taxonomy of ethics, the inquiry into intra-value conflicts belongs to a philosophical value theory, which should be distinguished from an ethical theory. Whereas ethical theories involve systematizing, defending, and recommending concepts of right and wrong behaviour – most notably virtue ethics, utilitarianism, deontology, contract theory, and care ethics –, a philosophical value theory is primarily concerned with theoretical questions about value.[2] Important for the scope of this thesis is the consideration within value theory of how, why, and to what degree various people within different perspectives value things.

Second, to present this thesis with clarity, the following definition of a value has been deployed: values are reference points for evaluating something as having desirable or esteemed characteristics or qualities. In addition to this 'indicator' that orients an appraisal or considered judgement, human values also function as the principle or standard of guiding behaviour (Triandis, 1980; Homer & Kahle, 1988; Bardi & Schwartz, 2003). As such, values are rationally and emotionally binding, setting in motion long-term orientation and conation for action. According to social psychologists such as Rokeach (1973) the concept of values is the main dependent variable in the study of culture, society, and personality, as well as the main independent variable in the study of social attitudes and behaviour.

Third, a philosophical value theory has to deal with value conflicts. Value conflicts can be described as a state of disagreement – particularly a disharmony between persons or ideas – about the appreciation of worth, merit, or character of an entity (including natural goods e.g. artefacts and technology). Value conflicts, however, can be distinguished into two phenomena; intra- and inter-value conflicts.

The notion of an inter-value conflict is used to describe the conflict between *two or more* values in a situation that requires moral choice. In public debates, conflicts between values can for instance be found in tensions between (national) security and freedom or privacy. Debates on inter-value conflicts refer to value pluralism and the impossibility to reach common grounds that goes beyond a statement or acceptance of the differences.

The notion of an intra-value conflict is then used to describe the conflict between two or more different understandings – or different reference points – of the *same* value. Take for instance the example of an LGBTQ couple and an extremely religious heterosexual couple and the way they both value 'family'. Both families might seem to have consensus about the value of family, but they might refer to different content-related aspects – both interpretive factual and evaluative – that they consider important or desirable. The consensuses might be on the

[1] Only a handful of scholarly articles have paid attention to intra-value conflicts, e.g. "Contested Technologies and Design for Values: the Case of Shale Gas" (Dignum, Correljé, Cuppen, Pesch, & Taebi, 2016), "Framing the Problem" (Searing & Searing, 2016), and "The Value(s) of Sustainability within a Pragmatically Justified Theory of Values: Considerations in the Context of Climate Change" (Beck, Meisch, & Potthast, 2012).

[2] Within this realm, value theory traditionally deals with axiological questions (e.g. intrinsicality, pluralism, and incommensurability) and possible varieties of goodness (e.g. good 'simpliciter', 'good for', and 'attributive good').

kind of selfless affection and dedication to one's spouse and children, but whereas the more traditional family might value family in terms of the breadwinning father 'putting food on the table' for the homemaking mother and biological children, the LGBTQ couple might stress the necessary cheerfulness and exuberance in expression and communication.[3] In this ostensible negligible example, the term family (within these 'family resemblances') can be seen to result in the kind of blanket terminology and umbrella conceptuality in which it can actually refer to different values. However, a certain nomenclature of value terminology with regard to terms such as 'responsible innovation', 'avoiding technological risk', and 'a pragmatic approach' has to deal with similar problems.[4]

Intra-value conflicts, however, can extend far beyond just the linguistic ambiguities of an umbrella concept. Values can still differ after they have been discussed and clarified depending on *the way* values are meeting the requirements of certain beliefs and interests. With 'the way values are met' is meant its course of conduct or action; its manner or method of doing something. Take for instance advocacy. Two colleagues could both consider 'advocacy' to include – with respect to one's duties as a graduate program advisor – the ability to 'effectively understand and represent student interests.' However, whereas one colleague could consider bar-hopping with the graduate student on Friday nights as necessary to achieving this goal, another colleague could consider this a gross breach of professional etiquette. Each faculty member agrees on what professionalism and effective advocacy means, but the value could vary widely qua professionally ethical forms of application. In other words, even if there is a consensus about the definition, the reference point of a clearly defined value such as advocacy can vary tremendously depending on the way a person thinks it is best served or put to practical use.

Based on the previous two explications and subsequent examples, two important elements can be observed in relation to an intra value-conflict. First; people may have a different conceptualization of a value in which they merit different attributes and other content-related aspects that are implied by the given value. Second; even if there is an alleged (linguistic) consensus on content-related aspects – and thus a *perceived* consensual understanding –, ethical forms of conduct and application can still differ.

The presence of an intra-value conflict regarding sustainability became readily observable in the analysis of the Dutch shale gas debate conducted by Dignum et al. (2016)). In their analysis, Dignum et al. (2016) observed that all values – both procedural and substantive – were shared amongst different parties, involving both proponents as well as opponents. However, notwithstanding the consensus of the value at stake within the assembly, it did not necessarily mean that all stakeholders agreed upon the interpretation of the values. This could be demonstrated by an advocate's supportive argument which involved the following interpretation of 'environmental friendliness': 'Shale gas offers the opportunity to realize cheap and relatively quick CO2 reduction,' whereas an anti-shale gas stakeholder could be observed referring to the same value in the following argument: 'Shale gas is a fossil fuel and cannot be sustainable.' While the value of environmental friendliness was being shared, this shared value also brought up the discussion topic of whether or not some fossil fuels could be more or less environmentally friendly. The same would hold true for the kind of procedural values that were being endorsed by different parties. Some proponents would generally seem satisfied with the existing institutional frameworks, Dignum et al. (2016) argued, while opponents would demand additional norms and restricting criteria. With regard to the value 'distributive justice', however, both proponents and opponents identified the need to come up with new norms and criteria for the improvement of current institutional structures. Various arguments criticized the limited possibilities for the compensation of local communities. The issue of compensation later

[3] With respect to these different reference points, one could wonder what the value of 'family' actually means or signifies, other than the connection of two or more human beings, especially considering practices such as child adoption (or just sponsorship), living apart together, long distance relationships, and polyamory.

[4] With regard to responsible innovation the conflict can be said to revolve around backward-looking notions of responsibility that stress accountability, blameworthiness or liability versus forward-looking notions of responsibility that stress the virtuous character of assuming responsibility. The notion of technological risk often conflicts when people disagree about what can be at risk e.g. the incalculable nature of the human psyche. The notion of a pragmatic approach invites the controversy of what a desirable practical consequence is, and, more importantly, *for whom* and *from what perspective*.

appeared to have become a source of controversy in itself as it was seen as a form of bribery. A question then arises; how can the phenomenon of intra-value conflicts be explained?

CHAPTER 2: A POST-PHENOMENOLOGICAL FRAMEWORK

A second step in answering the research question - how can intra-value conflicts about technology be made comprehensible – is to look to what extent current literature can explain the notion of intra-value conflicts. In order to base the main research question on relevant academic concepts and theories, and legitimately argue for it, the inquiry has focused on which up-to-date philosophical insights are capable of – or falling short on – explaining the relations between technology and values as well as the multifaceted nature of values.

When looking at the existing literature on how authors relate technology to society and values, it seems as if on one end of the spectrum, a lot of authors either have a naïve or sophisticated technological deterministic view on this relation (Marx, 1887 [1867]; Weber, 1930 [1905]; Heidegger, 1977 [1949]), whereas on the other hand it seems as if authors seem to attribute agency to the social forces – whether that are individuals or groups of humans – that shape our technologies (Bijker, Hughes, & Pinch, 1987; Winner, 1980; Noble, 1999).

However, when the sophisticated determinist view regards the production of knowledge to be the result of the artefactual environment, it fails to recognize that the way we produce the material environment depends on our current understanding of what the world is like. On the other hand, when the social constructivist view regards the production of material objects to be the result of our social environment, it fails to recognize that the way we grasp the world and thus make value judgements based on such an understanding, depends on our material environment. Both sides of the story are not completely wrong, however strange that might seem, because their conclusions are based on the premise that there is a fundamental distinction between how artefacts come into being and our knowledge and values that revolve around them. One approach that has trumped this dichotomy can be considered postphenomenology, because this approach considers technology to be a medium for human experiences and practices rather than locating human beings and technological artefacts in two separate domains (the domains of subjects and objects).

This particular philosophy is adduced for the reason that two of its concepts – multistability and macroperception – seem to qualify in illustrating the varying interpretations that groups of people might hold. Nevertheless, in making intra-value conflicts completely comprehensible, the philosophical framework seems to fall short on what will be distinguished into the affective-valuational and conative-conflictive elements of intra-value conflicts. Before going into these shortcomings of postphenomenology dealing with intra-value conflicts, a brief clarification of postphenomenology and traditional postphenomenological approaches is provided in order to avoid any misunderstandings.

§ 1: POSTPHENOMENOLOGY

According to the post-phenomenological approach, many of our large-scale social problems – these Grand Challenges – can be understood in relation to technology. This is due to the main tenet of the post-phenomenological approach which argues that technology and society co-constitute each other from the start. The approach argues that there is not merely an ongoing interplay between social practices and technological artefacts, but that they are each other's conditions of possibility to be.[5] As such, some authors argue that it can render clear the way how technologies shape morality, as well as how morality shapes technology (Verbeek, 2011).[6]

One aptitude of the post phenomenological approach to technology is that it extends beyond a careful intrinsic examination of a technology, an artefact or its application. Due to its tenet of co-constitution, it also

[5] It can therefore be seen as combining constructivist approaches (e.g. Social Constructivism of Technology) with deterministic approaches.
[6] It therefore does justice to the way artefacts represent our contemporary understanding of the world which we have constructed in collaboration with materials, material objects and socio-material systems.

affords for a critical inspection of the technological attitude or disposition that has made the artefact appear as meaningful and necessary to begin with. Compositionally, when the artefacts have entered into existence they expose a particular meaningfulness and necessity in the world beyond the mere presence of the artefacts that can be analysed. Authors such as Brey (2009) have combined the former and the latter in arguing that technological artefacts are capable[7] of having built-in consequences in the sense that particular consequences may manifest themselves in all of the central uses of the artefact.

This particular meaningfulness and necessity in world beyond the mere presence of artefacts is exposed when simultaneously looking at the great wealth and improvement technology has offered us as well as looking at the new – and even exacerbated – societal problems that have arisen due to technology. Postphenomenology can therefore be considered a very powerful understanding in the way Grand Challenges arise due to human-technology relations. If these current Grand Challenges are thus to be resolved, the way human-technology relations have come and are coming into existence have to be well understood and appreciated. And postphenomenology offers such as way.

If these Grand Challenges are to be addressed with a postphenomenological approach, however, one quickly stumbles upon an insufficiency within some of the traditional postphenomenological approaches. This insufficiency primarily revolves on how society and technology are co-constituted on a more affective and value-sensitive level, as well as how conflict and controversy come into play. The emphasis here is on insufficiency to denote the lack of attention that has paid to it, rather than say any incorrectness. Before using the notion of perspectivism to explain intra-value conflicts within a post-phenomenological framework, the current postphenomenological approach will be briefly rendered plain and comprehensible, and with it, the justification of its insufficiency of considering values and conflicts.

§ 2: Traditional Postphenomenological Approaches

Traditional postphenomenological studies (Ihde, 1995; Selinger, 2012; Rosenberger & Verbeek, 2015) can be seen to prioritize two elements within their investigation in order to express their ambivalent relation to the phenomenological tradition. A first element within their investigation is a strong phenomenological emphasis on experience and concreteness. A second elements is a distantiation from classical phenomenological romanticism regarding technology that can for instance be found in the philosophies of Karl Jaspers and Martin Heidegger. The post-phenomenological school of thought does not position itself in opposition to science and technology, but has as its goal to amalgamate science and technology into philosophical analysis and its co-constitutive relation towards human beings and their experience. Based on a critical dialogue with the phenomenological tradition on the one hand, and research in the empirical field of Science and Technology on the other (Rosenberger & Verbeek, 2015),[8] the postphenomenological approach combines an empirical orientation with philosophical analysis.

[7] Thus not necessarily in each and every use of an artefact.

[8] Rosenberger and Verbeek (2015, p. 10) argue that "classical phenomenological analyses of technology, most notably in the work of Martin Heidegger, approached technology in fairly abstract and also romantic terms. They studied "Technology" as a broad, social and cultural phenomena, with a special focus on the way in which technology alienates human beings from themselves and from the world they live." Although Rosenberger and Verbeek (2015) recognize that this approach has brought many relevant insights in the role of technology in human existence, they regard its monolithic and romantic character as increasingly problematic. As such, the analyses were losing touch with the actual experiences people have of the roles of technologies in human existence. As for the empirical approach of the field of Science and Technology Studies, Rosenberger and Verbeek (2015) argued that it does not always provide a real answer to this lack of connection. "Despite its empirical basis in field like sociology and anthropology, and despite its ambition to take an "empirical detour" to answer philosophical questions, it eventually did not always find the way back to these questions. Insights in the dynamics of the complex intersections of science, technology, and society, however valuable they are, do not always help to answers the philosophical question of how the role of technology in human existence and experience can be understood (2015, p. 10)."

Post-phenomenology has baptized itself as such to emphasize its distantiation from the romanticism of classical phenomenology. According to Rosenberger and Verbeek (2015), classical positions have often made the claim that phenomenology is able to provide a rich alternative to the narrow scientific and technological approach to reality.[9] Rather than providing a description of the world as it actually is, the sciences would present a reduced reality. In opposition to this, postphenomenological authors argue to take us 'back to the things themselves' (Rosenberger and Verbeek, 2015) and thereby disprove of any claim in that there is an original world to be retrieved that is richer in meaning than the world of science and technology. Instead of thinking in terms of alienation, the approach thinks in terms of mediation. Science and technology help to shape our relations to the world as opposed to merely distancing us from it. Rather than providing some sort of description of how humans relate to the world (e.g. Husserl's 'essential structures of consciousness'; Merleau-Ponty's 'primacy of perception'; and Heidegger's 'being-in-the-world'), post-phenomenology tries to understand the very relations that exist between human beings and their world. Such a conceptualization of human-technology relations enables an understanding of how science and technology bring about human-technology relations, other than positing them somewhere in-between impoverishment and suffocation.[10] According to Rosenberger and Verbeek (2015), this way of looking at mediation necessitates a reinterpretation of the foundation of phenomenology.

Furthermore, postphenomenological studies investigate technology on the basis of the relations between human beings and technological artifacts. Their center of interest and activity revolves around the way in which technologies shape the relations between human beings and the world. As such, these studies do not approach artefacts as just functional and instrumental contrivances, but view them as mediating the experience and practice of human beings. To achieve this, postphenomenology extends the concept of intentionality that classical phenomenology utilized to overcome the subject-object distinction.

The philosophical concept of intentionality was called into life by authors such as Brentano and Husserl to demonstrate how people cannot be *but* directed at the world in which they exist. The human subject is invariably experiencing the world (or lifeworld to use Husserl's terminology), and is thus the only place in which the human subject can realize its existence. On the other hand, the world can only be what it is when the human subject is dealing with or interpreting the world. On this note, Husserl argued that all mental processes would have an essential property in common which he referred to as 'intentive mental processes' (acts in the broadest sense of the Logische Untersuschungen); "in so far as they are consciousness of something, they are said to be "intentively referred" to this something" (Husserl, 1983 [1913], p. 73). Husserl clearly points out that he is not speaking of "a relation between some psychological occurrence – called a mental process – and another real factual existence – called an object – nor of a psychological connection taking place in objective actuality between the one and the other" (1983 [1913], p.73). Rather, he points out, he is speaking of mental processes purely with respect to their essence, or of pure essences and of that which is "a priori" included in the essences with unconditional necessity. That is, a mental process is consciousness *of* something. As examples, he mentions that fantasizing is fantasizing of the determinate centaur, but also that perception is perception of its "real" object, that a judgement is a judgement of its predicatively formed affair-complex.

Postphenomenology has, however, reconcepualized this concept in two novel proceedings: mediation and co-constitution. Mediation within the context of postphenomenology refutes any direct relation between the human subject and the objective world. Any relation that can occur between them is postphenomenologically seen as an indirect one, as any relation is always and already mediated by technology. You would have to excavate your way back into time quite a bit to find human beings without technology. As such the human-world relation can be

[9] A reference here can be made to Merleau-Ponty who argued that while the sciences merely analyzes things from a distance, phenomenology describes them from a closer engagement.
[10] Nietzsche naturalistic philosophy, absolute refutation of any idealism, and focus on relations can be said to go hand in hand with post-phenomenological concreteness here.

typically seen as a human-technology-world relation. Co-constitution within the context of postphenomenology also refutes any ideas that there are subjects or a world of objects that are pre-given without the consideration that technology is mediating the human-world relation. In this sense of understanding the human-world relation, technological mediation is the source that shapes human subjectivity and the objectivity of the world. As a result, postphenomenology views the human subject and the world of objects to be constituted in their mediated relation.

Lastly, this school of thought combines empirical investigation with a philosophical analysis. Contrary to just the application of philosophical theories to technologies, post-phenomenology takes as a philosophical point of departure the actual technology and its development (Verbeek, 2008). Doing philosophy of technology is here understood as doing philosophy 'from' technology. They are, however, as mentioned earlier, some shortcomings when using postphenomenology to explain intra-value conflicts about technology.

§ 3: Some Shortcomings of Postphenomenology Dealing with Intra-value Conflicts

Previously, it was explained that an important element of intra-value conflicts could be ascribed to people having a different conceptualization of a value in which they merit different attributes and other content-related aspects that are implied by the given value. A postphenomenological approach could possible answer this through the notion of multistability and macroperception. The reference to these two notions is made to show that a 'sense of perspectivism' is not completely absent from the philosophy of technology as well as to crystalize where perspectivism departs from notions such as multistability and macroperception.

With the concept of multistability, postphenomenology describes how technology can be perceived in multiple ways through different contexts. Through simple and abstract examples such as the Necker Cube, authors such as Don Ihde have demonstrated the noematic possibility within the configuration of such an object. Other, more in-depth inquiries – e.g. the multistability of the practise of archery – show how active perceptual engagement 'reveals the situated and perspectival nature of bodily perception (Ihde, 1990, p. 15/16). Similar to multistability, perspectivism describes how objects can be perceived in different ways and from different perspectives. As such – in its most simple and abstract conceptualization – perspectivism is nothing more than the simple *specification* of a certain reality or value *for* a group of people within a particular time and (cyber) space. In this limelight, multistability and perspectivism are both the *result,* and therefore only lend themselves for their necessary descriptive powers. As I will come to argue and elaborate upon later: perspectivism (and multistability for the matter) only describes what was or is already there; a sign and surface-world. To fundamentally understand intra-value conflicts, however, the human affect and its conative processes towards enablements that elicit conflict should be taken into consideration as well. As for their philosophical explanatory powers, postphenomenological multistability and perspectivism part ways in that postphenomenology often draws upon STS and Nietzsche's perspectivism lends its explanatory powers from the will-to-power. In short, in STS the emphasis is on making comprehensible the co-production and mutual shaping of the interplay and dynamic of society, science, and technology. As such, society, science, and technology 'underwrite' each other's existence. The will-to-power philosophy similarly describes how the plurality of dispositions (or 'will-to-power quanta') dynamically interact with one another, but takes as the fundamental starting point processes that have an inherent *contradictory* and *perspectival* character, capable of explaining for instance intra-value *conflicts*. Hence, as much as perspectivism needs the will-to-power for its explanatory power, the will-to-power cannot be made readily comprehensible without its exemplary perspectivism.

With the concept of macroperception, postphenomenology aims at describing the larger kind of (cultural) contexts and frames of interpretation. This then pertains to how groups of people – or communities and societies – frame their interpretation of the world and themselves as a result of technical mediation, which is exactly what perspectivism intends to describe as well. However, many postphenomenology approaches can be said to have

directed their focus primarily on micro-scale analysis. Although this school of thought has promoted an admirable turn towards 'the things themselves,' paying explicit philosophical attention to material technological artefacts, it has paid little attention to what Don Ihde distinguished into 'macroperception.' Don Ihde's phrased this distinction as follows:

> "What is usually taken as s sensory perception (what is immediate and focused bodily in actual seeing, hearing, etc.) I shall call microperception. But there is also what might be called a cultural, or hermeneutic, perception, which I shall macroperception. Both belong equally to the 'lifeworld'. And both dimensions of perceptions are closely linked and intertwined. There is no microperception (sensory-bodily) within its location within a field of macroperception and no macroperception without its microperceptual foci" (Ihde, 1990, p. 29).

It is this macroperception that can be somewhat associated to perspectivism in that perspectivism can be seen as Ihde's macroperception minus the philosophical concept of the affect. According to Ihde, technology is always interpreted and employed in a cultural context. When talking about expanding hermeneutics and visualism in science for instance (Ihde, 1999), Ihde grounds the practical basis of a scientific-technical culture in the technological mediation of perception by new instruments. He gives prominence the role of the telescope and imaging technologies, as well as the introduction of new and more precise technologies of measurements. Hermeneutically, Ihde provides a well argued for analysis of the ways in which reality can be present for people based on the perceptual and sensory aspects of interpretation as they are translated into our consciousness.

Somewhat similarly, Nietzsche's appeals to his notion of perspectivism in a reference to an "optics" of knowledge. In his notes (WP, 636; KSA 13:14 [186]), when writing about physicists positing and systematizing atoms, Nietzsche argues that this world picture that physicists sketch differs in no essential way from the subjective world picture: "it is only construed with more extended senses, but with *our* senses nonetheless." If it would happen that physicists would leave something out of the constellation without knowing it, it would be the epitomization of a necessary perspectivism by virtue of which every centre of force would construe all the rest of the world from its own viewpoint. Nietzsche stresses the emittance of this perspective-setting force in the subject, arguing that other authors wrongfully added this later, as something "evolved," added later. But even the chemist would need it, Nietzsche would argue.

On a macrolevel, Nietzsche argued, perspectivism would only be a complex form of specificity. Nietzsche's idea was that every specific body would strive to become master over all space and to extend its force (its will to power) and to thrust back all that would resist its extension. But it would continually encounter similar efforts on the part of other bodies and ends by coming to an arrangement ("union") with those of them that would be sufficiently related to it. As a result, they would then 'conspire together for power'. The *result*, the arrangement (e.g. scientific-technical union) of perspectivism, can be seen as corresponding with contemporary notions of culture being defined as the shared cognitive constructs and patterns of behaviours and interactions that are learned through a process of socialization.

However, as put forth earlier, values are *emotionally* binding. Although one could argue that Ihde did a much better job in providing a philosophical analysis of the matter, Ihde construed his analysis in terms of the primacy of the perceptual and sensory aspects of interpretation as they enter into our wakeful (and thus cognitive) consciousness. With it, he is leaving out an important element of hermeneutics that was fundamental to Nietzsche's philosophy; hermeneutics in terms of the *affective aspects* of perceptual interpretation. As such, one could see perspectivism as Ihde's macroperception minus the affect (as well as imagination when considering Husserl's

example of fantasizing). In what is known as the affective turn, the affect has become indispensable in developing the paradigm of embodiment in cognitive science, consciousness studies and the philosophy of mind.[11]

When talking about the 'morality of things', authors such as Verbeek (2008, p.1) argue that "the quality of their contributions to our existence can be *assessed* in moral terms" (own emphasis). As such, some roles played by technology are argued to being called "good" and other roles "bad". This, however, places the subjective estimation or appreciation of worth, merit, or character of a technology outside of intentionality and places it extrinsically in pre-existing notions of right and wrong conduct. In Nietzschean terms, this good/bad valuation could be said to arise out of a "pathos of distance" (GM I, 2) expressing the superiority that excellent people feel over ordinary ones, giving rise to a "noble morality" (BGE, 260). More specifically, it commits to a postphenomenology of sensory perception (e.g. embodiment relations, alterity relations, and background relations), but commits a phenomenological fallacy when placing human affect, feeling, and subsequent value judgement as something extrinsic. And, as a result, there is little to none (post)phenomenology of valuing going on (c.f. Scheler's phenomenology of intuition of material values).

The research method and approach in using Nietzsche perspectivism can be considered as justified based on Nietzsche's argument that perspectives are themselves always rooted in affects and their associated patterns of valuation, which he considers just as important for our practical and evaluative lives as it is for cognitive life.[12] Hence, when discussing intra-value conflicts about technology, perspectivism is more inclusive as it not only includes conscious perception, but also affection, thereby committing to the way values are emotionally binding. Additionally, perspectivism draws its explanatory power from Nietzsche's will-to-power – with its fundamental starting point of processes that have an inherent contradictory and perspectival character – it is capable of explaining intra-value conflicts. Based on the argument that human beings can only experience reality by relating to it – which does not involve any reality-in-itself but rather reality-for-them –, this thesis continues with the notion that we cannot have access to reality, and to ourselves, except by adopting a perspective. To further jusitify and embed perspectivism in a theoretical framework, a short philosophical exegesis of the concept of values has been undertaken to elucidate the perspectival nature of values.

[11] The other fundamental pillar of Nietzsche's philosophy; conation (e.g. drive and volition) is currently largely predominated by the element of motivation.

[12] "There is *only* a perspectival seeing, *only* a perspectival "knowing"; and *the more* affects we allow to speak about a matter, *the more* eyes, different eyes, we know how to bring to bear on one and the same matter, that much more complete will our "concept" of this matter, our "objectivity", be. (GM III, 12)"

CHAPTER 3: VALUES AND NIETZSCHE'S PERSPECTIVISM

In the previous two chapters, a clarification has been provided of what an intra-value conflict exactly entails as well as how postphenomenology is able to address many of our large-scale social problems in relation to technology, but falls short – or lacks emphasis – on accounting for conflict and seemingly treating the affect as an externality in its concepts of multistability and macroperception. For the reasons provided in the last paragraph, perspectivism appears to be fully equipped to explain intra-value conflicts.

The particular aim and purpose this chapter is to explain how values relate to Nietzsche's perspectivism. This part of the research is deemed necessary to the make the multifaceted nature of values comprehensible. To apprehend this relation between perspectivism and values as concisely as possible, it is pertinent to understand Nietzsche's perspectivism in relation to earlier types of values and moral philosophy. It was precisely in opposition to earlier valuations that Nietzsche came to his revaluation of all values. According to authors such as Schnädelbach (1984), historians of philosophy are in agreement with the contemporaries of the philosophy of values in thinking that it was Nietzsche's provocative slogan of the 'revaluation of all values' which first led to the boom-period of the concept of value. At that time, this boom was further intensified by the value-theoretical interpretation of the cultural sciences in Heinrich Rickert and Max Weber as well as by the debate about value judgements in the social sciences. Contrary to popular belief, however, the concept of 'value' was taken over from political economy in the 1840's and was made into a fundamental philosophical concept by Rodulf Herman Lotze. But before arriving at Lotze and Nietzsche, a short genealogy will be provided to account for the way Nietzsche's conceived of the philosophical exegesis of the problem of value and how he enquired into the conditions which made it possible for it to appear.

§ 1: A SHORT PHILOSOPHICAL EXEGESIS OF THE CONCEPT OF VALUES

The term 'value' can be seen as a comparatively new scholarly term. Its etymological roots can be found in the Latin *valere* and Old French *valoir* meaning 'to be worth'. It may therefore come as no surprise that its English equivalent in the late 14th century meant as much as the 'price equal to the intrinsic worth of a thing' and became especially scholarly interesting to economic theories of value. Similarly, the German term Wert (e.g. in Arbeitwert and Mehrwert) initially denoted the economical worth of an entity.

The theoretical construct of value took precedence in classical political economy. Although some discussion on value could be traced to the works of Aquinas (Tawney, 1926) or Khaldun (Schumpeter, 1954), it became especially dominant in the work of William Petty who would argue that all value would come from two sources and should be measured accordingly: "All things ought to be valued by two natural Denominations, which is Land and Labour". (Petty, 1899 [1662], p. 44). With his work, Petty would set in mention a system of thought in which objective values were traced back to the amount of work, the rental of land, the cost of production, and other objective exchange values of economic goods and services. Among others, within the political landscape, John Locke would trace property rights to the labour spent on the production of things.[13] In the endeavour to ascertain the source of 'surplus' value, François Quesnay and his physiocratic contemporaries had been starting to analyse the production rather than the circulation of materials, coming up with a (naïve-materialist) conception that not human labour, but Nature was source of surplus value. Adam Smith on the other hand, saw labour as the sole source and measure of value, even opening (Smith, 1976 [1776], p. 10) his Wealth of Nations with the bold assertion that all national wealth was due to labour. Smith regarded value to be the exclusive product of human labour (productive labour), deriving its value from human nature.

[13] According to authors such as Whitaker, Locke had improved upon Petty's economic theory by distinguishing between origin, measure and regulation of value. (Whitaker, 1968 [1904]).

This economic apprehension of value has strongly affected the course and nature of terminology in moral philosophy. As enlightenment philosophers tried to undermine the authority of the monarchy and the kind of Judeo-Christian dualism that would describe "Good" and "Evil", 'moral' philosophers were in need of new type of 'valuation'. Although the value concept could be seen as being fully integrated into the literary work of Lotze, the paradigm shift from morality to values could be seen as shining through in earlier utilitarian ethics. Despite the fact that authors such as John Locke had tried to explain the way in which human beings would acquire the ideas of moral good and evil, he still tried to reconcile these ideas with a compliance to moral rules. In short, although Locke saw pleasure and pain as the primary motivating factors for all human action and human thought, he continued to see moral good as a kind of pleasure that would arise from one's conformity to moral dictates, and moral evil as the kind of pain that would arise from the failure to conform.[14]

One of the most important contributors to breaking this barrier was David Hume. Hume, an intellectual friend of the aforementioned Smith, also derived value from human nature instead of moral 'Good and Evil'. Rather than some objective standards of right or good conduct in the world, Hume's version of utilitarianism was contingent upon human agency and the 'the true interests of mankind,' with which he would ground his ethics in the utility of the public. In contrast to objective standards, Hume attached great importance to the human capacity to develop moral sensibilities in response to varying circumstances.

> "If any false opinion, embraced from appearances, has been found to prevail; as soon as farther experience and sounder reasoning have given us juster notions of human affairs, we retract our first sentiment, and adjust anew the boundaries of moral good and evil."

As such, moral distinctions were not derived from reason but rather from sentiment. It were these feelings that would exert practical influence over human volition and action. In his Treatise, Hume would argue that intentional actions were the immediate product of our passions,[15] in particular the direct passions,[16] including the instincts. Therewith, it marked one of the first steps beyond 'The Good' and 'The Evil'.

At the end of the first section of his Treatise, Hume makes a brief remark that can later be considered one of central critiques on morality in Nietzsche's work. In every system of morality that he had hitherto met, Hume would argue, he had noticed that the author would proceed for some time in an ordinary way of reasoning or would make an observation concerning human affairs, when all of a sudden the author would make a transition from the usual copulations of propositions – 'is' and 'is not' – to no proposition that would be not connected with an 'ought' or an 'ought not'. This 'ought' and 'ought not' would express an entirely new relation which Hume saw as a deduction that seemed altogether inconceivable. Hume considered it indispensable that an explanation should be provided for how the inconceivable new relation could possibly be a deduction from the other propositions while at the same time the 'ought' or an 'ought not' was being entirely different from them. "But as authors do not commonly use this precaution," Hume argued, "I shall presume to recommend it to the readers; and am persuaded,

[14] "Morally Good and Evil then, is only the Conformity or Disagreement of our voluntary Actions to some Law, whereby Good and Evil is drawn on us, from the Will and Power of the Law-maker; which Good and Evil, Pleasure or Pain, attending our observance or breach of the law, by the Decree of the Law-maker, is that we call Reward or Punishment" (Locke, 1975 [1700]).
[15] "According to Hume's theory of the mind, the passions (what we today would call emotions, feelings, and desires) are impressions rather than ideas (original, vivid and lively perceptions that are not copied from other perceptions)."
[16] According to Hume, "the direct passions, which include desire, aversion, hope, fear, grief, and joy, are those that "arise immediately from good or evil, from pain or pleasure" that we experience or think about in prospect (T 2.1.1.4, T 2.3.9.2); however he also groups with them some instincts of unknown origin, such as the bodily appetites and the desires that good come to those we love and harm to those we hate, which do not proceed from pain and pleasure but produce them (T 2.3.9.7). The indirect passions, primarily pride, humility (shame), love and hatred, are generated in a more complex way, but still one involving either the thought or experience of pain or pleasure. Intentional actions are caused by the direct passions (including the instincts). Of the indirect passions Hume says that pride, humility, love and hatred do not directly cause action; it is not clear whether he thinks this true of all the indirect passions" (Hume D. , 1975 [1739-1740])

that this small attention wou'd subvert all the vulgar systems of morality, and let us see, that the distinction of vice and virtue is not founded merely on the relations of objects, nor is perceiv'd by reason (Hume, 2003 [1739], p. 245). However, if not Judeo-Christian Good and Evil, nor any archaic moral rule of conduct that had been established by custom, agreement, or authority, what could be considered to be of moral worth?

Much like Kant's transcendental answer to Hume's principle of the association of ideas,[17] Kant argued that morality could not conceivably arise in some dynamic and interactive process, especially not one based on sentiment. Kant, in his quest for moral certainty and Truth, would argue that the only thing that would be good without qualification would be a "good will", which in turn would be wholly determined by the Moral Law. In sharp contrast to this propensity and feeling enslaving human reason, Kant would argue that the very conception of having a 'good will' could come from someone who would actually be committed to make decisions based upon the moral worth of the associated action. Kant would take this moral consideration in itself to be the conclusive for guiding moral worthy behaviour. As such, with regard to what was valuable, Immanuel Kant would argue that certain qualities could not be expressed in any monetary or material worth, but were worthy of esteem or respect. It was this sort of disposition or character that Kant thought we would all hold highly and believed we were valuing without limitation or qualification.

> "In the kingdom of ends everything has either a price or a dignity (*Würde*). What has a price can be replaced by something else as its equivalent; what on the other hand is above all price and therefore admits of no equivalent has a dignity. What is related to general human inclinations and needs has a market price; that which, even without presupposing a need, conforms with a certain taste, that is, with a delight in the mere purposeless play of our mental powers, has a fancy price; but that which constitutes the condition under which alone something can be an end in itself has not merely a relative worth, that is, a price, but an inner worth, that is, dignity" (Kant, 1998 [1785], p. 42).

Kant saw morality as the condition under which a rational being could be an end in itself, since only through this is he saw it as possible to be a lawgiving member in the kingdom of ends. Hence for Kant, morality, and humanity insofar as it was capable of morality, was that which alone had dignity. What would have a market price were skill and diligence. Even those things such as wit, lively imagination and humour would have a price, just a more excessive or exorbitant one. Fidelity in promises and benevolence from basic principles (not from instinct), however, had an inner worth. Kant saw them as priceless and irreplaceable. Nature, as well as art, contained nothing that, lacking these, would be replaceable. Their worth did not consist in the effects arising from them, in the advantage and use they would provide, but in dispositions, that was, in maxims of the will that in this way were ready to be manifested themselves through actions, even if success did not favour them. Fidelity in promises and benevolence from basic principles would need no recommendation from any subjective disposition or taste. They did not need to be looked upon with immediate favour and delight; nor did they need any immediate propensity or feeling for them. Rather, they would present the will that practices them as the object of an immediate respect, and nothing but reason would be required to impose them upon the will, not to coax them from it, which latter would in any case be a contradiction in the case of duties. This estimation would therefore let the worth of such a cast of mind be cognized as dignity and would put it infinitely 'above all price', with which it could not be brought into comparison or competition at all without, as it were, 'assaulting its holiness'.

In this Kantian comparison of inner worth and prices, Kant sought to identify some supreme (intellectual) principle or law of morality that was independent of any material or physical value - fidelity in promises and

[17] In contrast to Hume, who would argue that our ideas were in principle mere associations by way of resemblance, contiquity in time and space, and cause-and-effect, Kant would argue that forms and sensibility (time and space) and categories of the understanding (quantity, quality, relation, and modality) were preconditions for experience to be meaningful.

benevolence from basic principles - and subsequently tried to subordinate this 'good' to the conformity of his moral law. In a similar fashion – although completely opposite in its point of departure –, a number of utilitarian authors increasingly started to associate value estimations to some quality. In their set of doctrines, however, value estimations were applied to the supreme end of utility. Bentham, for instance, would emphasize the primacy of pains and pleasures in his utilitarian theory. In this kind of teleologic, pleasure was identified as the supreme end and best way of living, to which the right and the virtuous were promoted to the end of this good. In its intellectual relationship to British classical economic theory, such utilitarian value theories were presupposing the possibility to calculate the value amounts of value bearers. According to Bentham, the value of a pain or pleasure to an individual would for instance be more or less according to its intensity, duration, certainty or uncertainty, and its propinquity or remoteness. For the purpose of estimating the tendency of any act by which it was produced, its fecundity and purity had to be accounted for, as well as its extent when it concerned a community.[18]

Such a calculus, however, had to deal with the predicament of examining the similarities or differences between value amounts. An answer to this was provided by Mill who argued that it would be quite compatible for the principle of utility "to recognize the fact, that some kinds of pleasure are more desirable and more valuable than others. It would be absurd that while, in estimating all other things, quality is considered as well as quantity, the estimation of pleasures should be supposed to depend on quantity alone" (Mill, 1863, p. 12) . Hence, value estimations of higher and lower pleasures would be measured on different scales, leading to statements such as it being better to be an unhappy human being than a happy pig. An important – but extremely subtle – discrepancy within this theoretical construct of value ordering is that once again, in distinguishing the qualitative character and properties of mental states, an author found himself in the act or process of forming an opinion about what he considered to be good or bad about certain mental characteristics and behaviour[19], *coming from* the perspective of utility.

Marx embodied this critique in arguing that utilitarian theory – specifically the one put forth by Bentham – would amount to mistaking the bourgeois for man in general. Utilitarianism was an apparent stupidity that would compress all the manifold relationships of people in the one relation of usefulness Marx argued. Characteristic for Marx, he would trace this apparently metaphysical abstraction "from the fact that, in modem bourgeois society, all relations are subordinated in practice to the one abstract monetary-commercial relation." By way of philosophically substantiating the work of British economists such as Adam Smith and David Ricardo,[20] Marx would argue that the thing that would be of value was the emancipation of material (physiological) life in the form of labour. Specifically, the immediate producer's enjoyment of production as a confirmation of his or her powers, as well as the idea that production was to meet the needs of others. This would reaffirm our human essence as mutual dependence for the producer as well as the consumer. What Marx considered most valuable then were individual human powers and our membership in the human community (Marx & Engels, 2009 [1844]). As such, Marx deciphered the concept of value by displaying it as a reflection of a relationship between human beings, which came into expression through the property of things.

Following the assertion that Kant made in that persons have an inner worth or "value" – which served as a critical characteristic that would separate them from mere things that have only a "price" – Lotze came to see the concept of value to include whatever would have validity (Geltung) in that it was true, good, or beautiful (Schnadelbach, 1984). In other words, as long as one could acknowledge the 'Würde' from the perspective of any of these forms, it could be seen as meaningful. Following this, it can't be seen as a surprise that Lotze came to the claim that "values are the key for the world of forms" (Lotze, 1857, p. 22). As for the reason for this turn

[18] It is important to note that Bentham later made two improvements of his so-called felicific calculus, namely the 'disappointment-prevention principle' and the 'greatest happiness principle'.
[19] i.e. pleasures of the intellect, of the feelings and imagination, and of the moral sentiments.
[20] David Ricardo's labour theory of value entails that the value of goods is proportional to the amount of labour that was required to produce it, including the labour that was required to produce the raw materials and machinery used in the process.

Schnädelbach (1984, p. 165) argued that "the philosophy of value arose in Lotze, not as a reaction to the disintegration of the unity of 'is' and 'ought' in the Absolote, but as a response to the loss of identity of being and meaning which had been affirmed by Absolute Idealism. Based on the validity of the true, good, or beautiful, Lotze devised a certain subjective objectivism. As for the subjective element, Lotze was utterly unyielding in his view that the measure of values could only be explained as the "satisfaction of the sentimental needs (Gemütsbedürfnisse)" (Lotze, 1852, p. 242). This led Lotze to the view that moral principles were to be established on the principle of delight (Lustprincip).

As a result, Lutze refrained from using the Kantian kind of formalism of the categorical imperative. As an alternative – in accordance with philosophers such as Jakob Friedrich Fries – Lotze acknoledged the psychological basis of the maxims of ethics. As such, Lotze had put forth the proposition that people draw their moral principles from the immediate psychological *certainty* with which we consider something as true or good (Lotze, 1858, p. 287). This subjectivism would then fit into Lotze's larger metaphysical idiosyncratic objectivism in that it would not only be limited to persons only. Although values could be recognized via delight, they could also be understood by way of being idealities. In this sense, values were also extremely significant for the apprehension of physical facts as they would amount to an understanding to the "meaning of the world in general—as a universal method for speculative expansion of all appearances" (Misch, 1912, p. lxv).. But how certain can one be in his or her valuation of the true of good?

If valuations are so extremely significant, the question of *which* valuations are 'essential' in the world can be seen to emerge? Which valuations ought to be the greatest objects of interest? Christians had been putting forth the love of God, hedonists would argue for pleasure, and Kantians would put forth a good will as the precondition of morality. Later on, pragmatists would prioritize satisfaction, growth and adjustment, and humanists would treat harmonious self-realization with the greatest of importance. And, as for the metaphysician's favourite; a Heideggerian Dasein as a dynamic combination of disposedness, understanding and wonderful fascination with the world ought to our primordial ontological attitude to the world.

For Nietzsche, it became gradually clear to him what every great philosophy had been doing so far. He argued that all authors had been making a personal confession of a kind of involuntary and unconscious memoir. The moral (or immoral) intentions in every philosophy constituted the *real* germ of life from which the whole plant had grown (BGE, 6). As such – to return to the particular aim and purpose of this chapter of explaining how values relate to Nietzsche's perspectivism – Nietzsche thought that past philosophers had largely disregarded the influence of their own perspectives on their work, and had for that reason unsuccessfully controlled control those perspectival effects.

Precisely because human beings would seek knowledge, they should not be unappreciative to adverse changes of accustomed perspectives and valuations with which the spirit had, with apparent mischievousness and futility, raged against itself for so long. However, in wanting to see future 'objectivity' differently, one could have the knowledge of how to employ a variety of perspectives and affective interpretations in the service of knowledge. This objectivity, Nietzsche argued, should not be understood as "contemplation without interest" (which Nietzsche saw a nonsensical absurdity), but as the ability to *control* one's Pro and Con and to dispose of them. In the third essay of the Genealogy of Morals, he therefore addresses his fellow philosophers to

> "be on guard against the dangerous old conceptual fiction that posited a "pure, will-less, painless, timeless knowing subject"; let us guard against the snares of such contradictory concepts as "pure reason," "absolute spirituality," "knowledge in itself": these always demand that we should think of an eye that is completely unthinkable, an eye turned in no particular direction, in which the active and interpreting forces, through which alone seeing becomes seeing *something,* are supposed to be lacking; these always demand of the eye an absurdity and a nonsense" (GM-III, 12).

According to Nietzsche so many of his predecessors and contemporaries epitomized and exacerbated the permeating intellectual and cultural crises Nietzsche described as the 'death of God' and the advent of 'nihilism.' He was convinced that traditional religious and metaphysical ways of thinking were on the wane, endangering the health of society. He had now taken the basic challenge of philosophy to be reinterpreting and radically reconsidering life in order to overcome this nihilism; from life and the world, to human existence and knowledge, as well as value and morality. Beside his existential doctrine of the eternal recurrence – which he claimed to be the 'fundamental conception' or 'basic idea' of Zarathustra in *Ecce Home* – not too many philosophical doctrines readily surfaced from the depths of his thoughts. However, two other important philosophical doctrines have been seen to emerge; perspectivism and will-to-power. Perspectivism as well as will-to-power can both be seen as philosophical doctrines that are entangled in the humongous cobweb that is *humanity*. The two are, however, much consolidated in that they encourage and complement one another as explained in Chapter 2, paragraph 3. But how does this *incisively* work? Before evincing how this complementary 'system' (or antisystem) of thought renders intra-value conflicts comprehensible, let us briefly turn to the interpretation of perspectivism and will-to-power itself.

§ 1.1: INTERPRETING PERSPECTIVISM

To show that the acquisition of the literature has taken place in an adequate and transparent manner, to which the literature can be considered relevant and/or illuminating, there is one brief issue that needs to be addressed. One peculiarity with interpreting Nietzsche's writings is that it has given rise to many radically different interpretations as his writing are often as ambiguous as they are fascinating.[21] Although interpretation and perspectivism are both key Nietzschean themes, Nietzsche's perspectivism itself is very much open to interpretation from a variety of perspectives. Although there are a number of landmark interpretations which have shaped what Nietzsche means today, each offering their own unique and irreplaceable rewards, this interpretation departs from the work of Wolfgang Müller-Lauter (1999 [1971]). Müller-Lauter has argued for the philosophical significance of the inextricable contradictions that were manifested in many of Nietzsche's utterances about the world. It was this 'contradiction' that formed the central thread of many of Nietzsche's arguments, rather than interpretations by philosophers such as Karl Jaspers, Karl Löwith, and Martin Heidegger who tried to marginalize Nietzsche's contradictions by way of attributing a noncontradictory meaning to him and substantiate those statements that contradict this meaning as superfluous or unintentional.

When assuming the fundamental contradictory nature of Nietzsche's philosophy, however, it is critical to make the distinction in what Muller-lauter (1999 [1971]) has called the 'apparent contradictions' and 'real contradictions'. What Nietzsche wanted to exhibit, according to Muller-Lauter, (1999 [1971] p. 11), were precisely the "real oppositions at the ground of what happens." These real oppositions would be *conflicts* based on drives and forces, which Nietzsche saw as constituting as the condition for all events; dynamic quanta that would stand in a relation of tension to all other dynamic quanta. Almost like a kind of chemistry of humanity in which competing or conflicting forces would continuously involve a rearrangement of the human substance and societal

[21] Among these interpretations are Heidegger using Nietzsche to question of the meaning of Being and making it the basic problem for philosophy, Löwith using Nietzsche in putting forth a totally honest atheism, Bastille using Nietzsche for depoliticization or what he coined acéphale, Kaufman recognizing a kind of system in Nietzsche's thought, while also insisting that seeing Nietzsche's thought as nothing but this system would mean falling into an error which Kaufmann called reductionism, Deleuze taking Nietzsche to be presenting a critical metaphysics, Klossowski using Nietzsche to emphasise on the valetudinary sates as a kind of semiotic of the impulses, Kofman using Nietzsche to strategically deconstruct his metaphors, Strauss situating Nietzsche in the lineage of what Strauss termed 'Platonic political philosophy', Vattimo interpreting Nietzsche as the prophet of the decline, and not the culmination, of Western metaphysics, Derrida using Nietzsche for his concept of différance as the general economy in his critique of presence, or Irigaray using Nietzsche to voice a feminist interpretation.

structures. What Nietzsche had set out to defend were these real oppositions against the apparent contradictions that could be found in for instance claims on the basis of philosophical logic.

The invocation of the Nietzsche's "philosophy of contradiction" can be seen as a powerful basis of Nietzsche's anthropological perspectivism. According to the analogy of man, *no form* of cognition, affect, or conation could escape the first conditions and principles of perspectivity.[22] As such, this interpretation is capable of describing how a plurality of dispositions (or 'will-to-power quanta') dynamically interact with one another, with the fundamental starting point the kind of natural processes that have an inherent *contradictory* and *perspectival* character, thus capable of describing intra-value conflicts. In this kind of monadological philosophy of life – in which the 'object' is only a kind of effect produced by a subject upon a subject – the entirety of nature and history can be thought through to its logical conclusion; a perspectivism.[23]

In an undertaking to elucidate his work, authors such as Aydin have argued that Müller-Lauter shows that Nietzsche's notion of the will to power is not an ens metaphysicum, but rather refers to an "irreducible multiplicity of partly struggling and partly cooperating 'wills to power'" (Aydin, 2011, p. 101). Together with a criticism of Heidegger's Nietzsche interpretation, this multiplicity and struggle in Nietzsche's philosophy is shown to have formed the leitmotiv in Müller-Lauter's entire work. Aydin (2011), however, stresses the unfortunate side effect of taking Müller-Lauter's criticism of Heidegger as a complete rejection or even obliteration of Heidegger's interpretation rather than an important and fruitful counter force against Heidegger's interpretation, despite the great worth Müller-Lauter saw in Heidegger's Nietzsche books. Having cleared this peculiarity, the following paragraph is dedicated to applying perspectivism in making intra-value conflicts comprehensible.

§ 2: Nietzsche's Perspectivism and Intra-value Conflicts

In clarifying how perspectivism can explicate intra-value conflicts, the following paragraphs will make a distinction between the cognitive-conceptual, the affective-valuational, and the conative-conflictual elements of perspectivism and intra-value conflicts. Key to understanding Nietzsche perspectivism in an unembellished way, was his impression that our first concern in revealing reality was not an objective one, but one that was based on our naturalistic needs[24] and practical interaction with the world.[25] Based on such a particular interaction with the world which would allow a group of human beings to survive, a perspectivism would instantaneously emerge. As such – in its most simple and abstract conceptualization – perspectivism is nothing more than the simple *specification* of a certain reality or value *for* a group of people within a particular time and (cyber) space.

Inherent to this kind of practical interaction with the world, Nietzsche argued, was a chaotic multiplicity which human beings would continuously tend to reduce to fundamental parts or categories in order to grasp the world and make sense of their lives. In the upcoming paragraph (§3) - in reference to this cognitive-conceptual element - it is argued that we simplify the world according to the kind or constructs that are present to us. In this particular simplification, we equate into our knowledge that which fits one's already existent knowledge, leading to for instance a particular *conceptualization* of a value. This however, Nietzsche argued, could be seen only as a sign and surface world which would exclude our affective and conative endowments. As for morality, Nietzsche saw this phenomenon as the sign language of the affect. In the subsequent paragraph (§4) – in reference to this

[22] In line with such an approach are among others the naturalistic reading of Cox, 'psychophysiological' or 'psychobiological' accounts of perspectivism (e.g. Gemes and Richardson), and to a certain extent Janaway's emphasis on the affects as interpreters.
[23] Or, as Muller-Lauter was able to recognize in one of his footnote's; Nietzsche's perspectivism does not contradict his theory of the continual flux of all events. We must think of 'the whole of the organic world' as "a stringing together of creatures with fictional little worlds around them" (Muller-Lauter 1999 [1971]; p. 188).
[24] This nature can be distinguished into cognition (e.g. schematization, reasoning), conation (e.g. volition, motivation), and affect (e.g. feelings, emotions), although these elements can be seen as nothing but interrelated.
[25] This interaction leading to particular concepts, values, and conflicts.

affective-valuational element, it is argued that we create feelings and emotions that manifest themselves into how and what we valuate. In this particular valuation, we come to value and revere those things that positively increase and aid our affect, setting in motion long-term orientation and conation for the *conduct* of such values. Nietzsche argued that behind this simplification and affection was an impelling force or propensity in human beings that would not just commit them to survive but would compel them to thrive; a will-to-power. Based on the entropic forces in mankind, people would continuously *have* to reinterpret the world – and subdue other interpretations – according to their practical interaction with the world. As such, in the last paragraph (§5) – in reference to this conative-conflictive element –, it is argued that we tend to *subdue* a particular interpretation of a value belonging to the self over those of others. In this particular subduing, we reason a reconceptualization of dissimilar value-interpretations, or, enforce an affect – 'effect a change' – in the conduct of values of others. These elements will be explained in more depth by way of the following sections, starting with the cognitive-conceptual element.

§ 3: The Cognitive-Conceptual Element of Intra-value Conflicts

With the apparent contradictions mentioned earlier, Muller-Lauter was referring to the apparent contradictoriness of *philosophical logic*. As such, what Muller-Lauter was trying to emphasize was the role of logic in *establishing* opposites. To this, Nietzsche would demand that one had to "remove antitheses from things after comprehending that we have projected them there" (WP 124; KSA 12:9 [121]). The crux of getting a grip on Nietzsche lies in understanding that although every form of unity is being *disclosed* as a synthetic, fictionalized, or created unity, it actually presupposes a multiplicity. As such, multiplicity and struggle constitute every form of reality.

Returning to the definition of values provided in the first chapter of this thesis - values being reference points for evaluating something as having desirable or esteemed characteristics or qualities –, a unity of value is then only an *apparent* unity, or in philosophical terms; a semblance. These are the kinds of umbrella concepts, blanket terminology and family resemblances presented earlier. In making the connection to intra-value conflicts; what actually exists is this multiplicity and conflict *within* the concept of a value.

According to Müller-Lauter, Nietzsche regarded logic itself as something that had *become*. Its principles are not an ultimate, irreducible given, prior to all world interpretation. They would arise from the "compulsion to arrange a world for ourselves in which our existence is made possible. (WP 521; KSA 12:9[144]). Its most ironic case seems to have surfaced from authors such as Hales and Welshon who on the basis of logic have tried to argue for what they call weak perspectivism. But in dealing with a conceived self-referential problem, as with many paradoxes, the significance of their paradox can be seen as its indication of a flaw or deficiency in understanding the central concepts involved in it. With their certainly not un-admirable approach, the authors appear to have been caught up what I will call the sign and surface-world,[26] to which I will elaborate upon shortly hereafter.

According to Müller-Lauter's Nietzsche, this compulsion to arrange a world for ourselves in which our existence is made possible would be a subjective one, that is, it would arise from man's particular vital conditions; hence would be a biological compulsion (WP 515; KSA 13:14[152]). As such, authors such as Clark and Leiter focusing on metaphysical anti-realism have failed to take account of the specific target Nietzsche had in mind when advancing his perspectivism; the primacy of vital conditions such as affects and drives rather than points of view and beliefs, specifically those based on the kind of (Schopenhauerian) will-less knowledge. Weren't authors supposed to be 'on guard' against such dangerous old and conceptual fictions according to Nietzsche? What these authors seem to focus on are the synthetic, fictionalized, or created unities, rather than the multiplicity of drives and affects that undergird them.

[26] Thus denying the incessantly changing referentiality of dynamic quanta that are in tension to one another.

In the original realm of illogic – Nietzsche wrote in The Gay Science – those beings "who make inferences in a way different from ours perished."

> "Those, for example, who did not how to find often enough what is 'equal' as regards both nourishment and hostile animals – those, in other words, who subsumed things too slowly and cautiously – were favoured with a lesser probability of survival than those who guessed immediately upon encountering similar instances that they must be equal. The dominant tendency, however, to treat as equal what is merely similar – an illogical tendency, for nothing is really equal – is what first created any basis for logic (GS, 111)."

Based on passages such as these, Muller-Lauter makes the claim that in reality, the similar has nothing to do with a supposed identicalness. In other words, the kind of claims we state to be true are plain inventions; a movable host of metaphors, metonymies, and; anthropomorphisms. They are substitutions that were coined so long ago that they have been erased from our memory which have become part of some objective 'reality'. For Nietzsche, truth claims are nothing more than

> "illusions which we have forgotten are illusions - they are metaphors that have become worn out and have been drained of sensuous force, coins which have lost their embossing and are now considered as metal and no longer as coins" (TL, 84).

For Muller-Lauter, (1999 [1971], p. 8) there "is no degree of the same: but something completely different from the same" Precisely speaking, Muller-Lauter argued, nothing would be intrinsically similar any more than anything would be intrinsically identical: similarity is always mere similarity *for us*. Described in a less ambiguous way; the formation of a concept or value takes places either through omitting or downplaying that what is different in the world. Essentially, we bring into being concepts through equating that what is unequal. In the very act of choosing similarities of a concept or value in a highly selective manner – in a manner which suits one perspective the most – words that once corresponded to a single concept or value are transmitted or conveyed into other items that are supposed to univocally refer to this particular concept or value, but are no longer identical with the original one.

This can be seen as the initial and fundamental answer to the important element in intra-value conflicts of people having a different conceptualization of a value in which they merit different attributes and other content-related aspects that are implied by the given value. When equating particulars into universals, we emphasise certain aspects of values, while concealing or omitting others.

In this light of this equating and conceptualizing, current philosophical literature on intra-value conflicts is not necessarily be insubstantial. The presence of various conceptualizations of a distinct value – can for instance be found in Rawls' (1971) theory of justice, in which he made a clear theoretical distinction between concept and conception. Rawls argued that whereas nearly everybody would endorse the notion that we would need a just society, there could be various opinions about what justice would exactly entail. Some people might see justice as the respect of *fundamental human rights*, others might argue that justice was to be understood as the *fair distribution of basic goods,* or even others might consider justice as the course of action that *maximized the utility* for the greatest number of people. Differently put, there seemed to be a consensus about the concept of justice, yet the conception of justice could be drastically different (Rawls, 1971; Hart, 1961). Similar accounts have arisen on behalf of concepts such as liberty ('positive liberty' versus 'negative liberty' (Berlin, 1969)), equality ('utilitarian equality' versus 'total utility equality' and 'Rawlsian equality' as in (Sen, 1979)), happiness (e.g. as a state of mind versus a life that goes well for the person leading it), and innumerable others.

Muller-Lauter (1999 [1971], however, argues that any identification, equation or fixation by which living creatures preserve themselves is a falsification of what is real. Only on the basis of falsification can "the will to logical truth" be implemented. Nietzsche's critique, however, is directed not at the *use* of the logical opposites, whose life-functions he saw as indispensable for man, but rather at their *assumed objectivity*. "Man cannot live without its fictions" (BGE, 4). In other words, we lack the necessary means to know what is literal. Our linguistic inventions cannot give us the kind of truths we seek in an objective reality. Our language is apparently deemed 'unfit' for arriving at an objective that encircles and articulates all of our experiences. Values such as well-being and sustainability become achromatic when seen as being uttered by something-in-itself. The possibility of setting forth 'the correct perception' of reality – or values such as well-being and sustainability for the matter - is therefore not capable of being accomplished. For the sake of the argument; we are only capable of eloquently speaking of objectivity and values with using the kind of equated and conceptualized signs that are already in use. Based on such assertions made by Nietzsche, Muller-Lauter (1999 [1971]; p. 9) argues that Nietzsche therefore defends his "contradictions against the claim of logic." What Nietzsche would vehemently assert was the "uniqueness of the world versus every kind of metaphysical dualism (Muller-Lauter, 1999 [1971] p. 10).

In the previous part, it is explained how through the equation of particulars into universals people can emphasise certain aspects of values, while concealing others. In the next paragraph, I will argue how this exactly *comes about* and people are able to come to a particular conceptualization of a value in which they merit different attributes and other content-related aspects that are implied by the given value. This should be viewed as my own interpretation of Nietzsche.

§ 3.1: The Cognitive-Conceptual Element as the Surface and Sign-world

Although Nietzsche mentions the terms 'perspective,' 'perspectival,' and 'perspectivity' with considerable frequency throughout his later works, he only explicitly references to it three times; once in the fifth book of The Gay Science (354) and twice in The Will to Power (481;636.). The doctrine is however, much like the will to power, a characterization of something about life in general and of greatest importance to Nietzsche. In the preface of Beyond Good and Evil, Nietzsche phrases perspective as the "basic condition of life," and argued that "there would be no life at all if not on the basis of perspective estimates and appearances."

In § 354 of *The Gay Science*, Nietzsche gives his most detailed account of perspectivism. An account he thought was rooted in the problem of consciousness. This problem of consciousness – which Nietzsche thought was seen as a problem exactly because it was misunderstood and therefore had become a problem – was in turn undergirding contemporary knowledge. In the paragraph, the problem of consciousness is traced back to the physiology and history of animals. An investigation that looks surprisingly much like Wittgenstein's private language argument. Starting off, he articulates the problem of 'becoming conscious of something' as a more precise description than the problem of consciousness. According to Nietzsche, we can only grasp the problem once we actually get rid of the notion of consciousness. The beginning of such a comprehension would lie in the physiology and the history of animals. This study of investigating the ancestry of humanity Nietzsche thought was long overdue. He even assigned Leibniz credit in that it had taken up centuries to catch up with his suspicion that consciousness would be merely an accident of experience and not its necessary and essential attribute.

Nietzsche puts forth that the human species are able to think, feel, will, remember, and even "act" in every sense of that word, but that all of this would not necessarily have to 'enter our consciousness.' He bracketed this notion as a metaphorical figure of speech to emphasize that mental states such as thinking, feeling, remembering and acting arise from physiological efforts rather than through conscious ones. Before embarking on his argumentation, he characterizes conscious mental states as if they are a reflection of seeing oneself in a mirror. But for a considerable degree, he claimed, the greatest portion of our life actually takes place without this mirror

effect. This would even be true of our thinking, feeling, and willing life, however offensive Nietzsche thought it would may sound to older philosophers.

It would however not be superfluous, this notion of consciousness, as he thought consciousness had a most important reason to exist, namely communication. He conjectured that the subtlety and strength of consciousness have always been proportionate to the human species capacity for communication, and this capacity in turn have always seemed to be proportionate to the need for communication. Before providing any arguments, he acknowledged that his answer was based on insufficient conclusive evidence – an extravagant surmise as he called it –, but argued nevertheless that it made a tremendous amount of sense.

He stressed the importance of understanding this proportionality not as a human being who happened to be a master in communicating and making understandable his needs. On the contrary, such a human being would also greatly dependent on others in such needs. In his consideration of whole races and chains of generations, the need and distress had forced men for a long time to communicate and to understand each other quickly and subtly. The ultimate result of this process was an excess of strength and an artful capacity of communication. A capacity that Nietzsche thought had gradually been accumulated as well as that this rich accumulation was always awaiting to be squandered by those who had no longer had to fight for it.

In the supposition that his observation was correct, he continued to presume that consciousness had developed only under the pressure of the need for communication. Only between two human beings was communication needed and useful, especially between those who were commanding and those who were obeying. Based on this degree of utilization, communication would flourish only in proportion to the degree of this utility. A human being that would live in complete solitude, hunting and preying on vertebrates, would not need such a correspondence with another human being. It was only as a medium as such that communication had to establish itself and that consciousness could become the net of communication between human beings that Nietzsche thought it was.

When a member of the early homo sapiens would be at serious risk – when he would need help and protection, when he would need his peers, when he had to learn to express his distress and make himself understood – he would need to have consciousness for expressing this. For this absolute pressure and need to set forth the distress, the human beings first of all needed to 'know' himself what exactly was distressing him. He would need to 'know' how he was feeling, and he would need to 'know' what he was thinking. The way that human actions, thoughts, feelings, and movements could enter into his own consciousness, Nietzsche argued, were at least for a large part the result of a physical necessities that had lorded over man for a terribly long time.

The human being, Nietzsche argued, would continuously think without actually being acutely aware of it, much like every living being. The type of thoughts that did rise to consciousness could only be seen as the tiniest amount of all that was going on in the human thinking process. The type of thoughts that would rise to consciousness were, according to Nietzsche, for the most part superficial, for they were only conscious thoughts in the form of words. The very existence of these poor signs of communication – unable to tap into our deepest needs and drives – were for Nietzsche proof of how consciousness could have originated. Building on this disclosure, he saw the development of language and the development of consciousness go hand in hand. In this light, consciousness was for Nietzsche not synonymous for reason, but rather how reason would enter into consciousness. Due to the conditions and situations in which human beings were necessitated to communicate, language would not only serve as a bridge between one human being and another, but would also reveal more primordial elements of its character. Among such elements were inner states of mind, conditions of felt pressure, as well as motions that the limbs would make to express or help express thoughts or emphasize speech. As such, Nietzsche would reject the existence of qualia to be belonging to 'the conscious mind', but rather assign it to any living being. His conception – of what has now come to be known as primary and secondary (or higher-order) consciousness – would still be very plausible within current neuroscientific work.

Nietzsche would further argue that the emergence of human sense impressions into its own consciousness – and with it the ability to schematize and exhibit them externally – would have increased proportionately with the need to communicate them to others by means of signs. Conversely, the human being that would be inventing signs was simultaneously the kind of human being that became ever more vividly conscious of himself. It was only as a social animal that the human acquired self-consciousness, something which Nietzsche still thought it was in the process of doing, more and more.

Nietzsche obviously didn't have the resources to support his claim, as does no scientist will ever have. But based on this supposition, he made a most important claim. Nietzsche argued that if consciousness did not really belong to a human's individual existence, it belonged to its social or herd nature. Based on this reasoning, he could make the claim that consciousness had skillfully and ingenuously developed only insofar this had been demanded for by the social or herd's utility. However much one would wish to try and understand oneself as individually as possible, to have self-knowledge or know thyself, a human being would always become conscious of only that what had risen among a certain *collective*. Our thoughts themselves would continually be governed by the character of consciousness that the 'genius of the species' would command. Translated back into the perspective of the herd, it was the general kind of consciousness that prevailed in human consciousness. Fundamentally, Nietzsche claimed, all our actions were altogether incomparably personal, unique, and infinitely individual. In contrast to his genealogy of the origin of consciousness, this was a claim he was certain that he could make. But as soon as such actions were translated back into consciousness they no longer seemed to possess this individual character.

For Nietzsche this was the essence of phenomenalism and perspectivism as he understood it. The world of which we could become conscious was only a *surface* and *sign-world*, one we owed to the nature of animal consciousness. Perspectivism can thus be seen the general kind of consciousness of a known herd; a group of people that have a shared constellation of strengths, interests, preferred activities, beliefs, abilities, values, and characteristics. The kind of perspectival 'knowledge' that rises by way of the surface and sign-world from the interaction with people one regularly communicates with, indicates the token of the different analytic conceptualizations – the surface and sign-world – of a value. In terms of Nietzsche's perspectivism, the cognitive-conceptual element of intra-value conflicts can be explained as follows:

i. The cognitive-conceptual element of intra-value conflicts arises by way of the surface and sign-world from the interaction with people one regularly communicates with. Based on the perceived degree of utility, we simplify the world according to the kind or constructs that are present, equating into our knowledge that which fits one's already existent knowledge, indicating the token of the analytic *conceptualization* of a value."

As for a value judgement on perspectivism, for Nietzsche this inherently meant that whatever became conscious became by the same token a shallow, thin, relatively stupid and general herd signal. All becoming conscious involved a great and thorough corruption, falsification, reduction to superficialities. and generalization. Ultimately, Nietzsche thought the growth of consciousness would become a danger. Anyone who would live among the most conscious Europeans even knew that it was a disease.

For Nietzsche this wasn't about the usual concerns he expressed throughout his books. It was not about the opposition of the subject and the object that concerned him. This distinction he would leave to the epistemologists who had become entangled in the snares of grammar, thereby trying to mock people who were coining metaphysical terms. It was even less about the opposition of the 'thing-in-itself' and appearance, for Nietzsche thought that we did not nearly know enough to be entitled to any such distinction.

It was about knowledge in itself. Nietzsche argued that humanity simply lacked any organ for knowledge, for ´truth´. We would 'know' – or rather believe or imagine – only the kind of knowledge that would prevail of be useful in the interests of the human herd, the species. Thus for Nietzsche, there was no truth in the sense that would correspond to anything we might think, say or even imagine about 'being'. There was no such 'knowledge' to be conceived in terms of such truth and reality. There would be no knowledge – even of ourselves and the world of which we are part – that would be absolute, *non-perspectival*, and certain.

A value, however, in contrast to a mere concept, goes beyond some analytical correspondence of some class of entities that characterize or highlight a feature of its class. More specifically, values are not only subject to rational factuality and facticity, but also emotionally binding (Roeser & Todd, 2014). Similarly, they are not only real, objective, and intellectual, but also subjective, ideal, and intuitive (Meisch, Beck, & Potthast, 2011).

§ 4: The Affective-Valuational Element of Intra-value Conflicts

Nietzsche had a clear idea about the mental states of affects as beings an important component of perspectives. He argued that perspectives should always be seen as rooted in affects and their associated patterns of valuation. As such, he would connect the sign and surface world of knowledge, from any perspective, to the human faculties that would lie prior and/or 'outside' of human reason.

For Nietzsche, most central to these natural abilities were drives and affects (Richardson, 1996; 2004; Katsafanas, 2016), as he would see the 'soul' as social structure of the drives and affects (BGE, 12). Whereas the drives were particularly important for the genesis of his concept of will-to-power, the affect was particularly of interest to his perspectivism. As Cox would argue (1999, p. 112), perspectivism is an "evaluation made possible and caused by the operation of a particular affective interpretation," which would make the act of affective interpretation a necessary condition of both meaning and value.

§ 4.1: Morality as the Sign-language of the Affect

As for moralities and moral theories, Nietzsche would argue that these were merely a *sign language of the affects* (BGE, 187). One could easily see why Nietzsche put it this way, primarily due to the abstract nature of the affect which cannot be entirely realized in language and because it is generally prior to and/or outside of human consciousness.

In reference to perception, this type of non-conscious affect indicates the possibility for perception to be separate from the kind of cognitive processing of environmental stimuli (Zajonc, 1980; 1984). It is exactly this treatment of morality as a sign language – and with it the treatment of the affect as an externality – that current postphenomenological approaches have seem to some catching up to do. The affect, however, is important for intra-value conflicts as we come to value and revere those things that positively increase and aid our affect, setting in motion long-term orientation and conation for the *conduct* of such values. A more precise description is as follows.

In Nietzsche's terminology it is important to note that the affect is not a personal feeling. Feelings can be seen as personal and biographical and emotions as social; the affect is prepersonal. Nietzsche borrowed the notion of affect from Spinoza (BGE, 12) who described the affect (*affectus*) as the ability to affect and be affected. More specifically, the philosophical concept of the affect can be described as a prepersonal intensity that corresponds to the passage from one experiential state of the body to another and implying an augmentation or diminution in that body's capacity to act (Deleuze & Guattari, 1987). As such, the affect is a determining factor in the process of an organism's interaction with stimuli and entails an instinctual reaction to stimulation.. This particular reaction to stimuli can be seen as primary for human beings and even the dominant reaction for lower organisms. Authors

such as Zajonc (1980) have suggested that affective reactions can occur without extensive perceptual and cognitive encoding, to which the reactions hereon are made quicker and with greater conviction than cognitive judgments.

In and of itself, however, this non-conscious experience of intensity – this instant of unformed and unstructured potential – might not be considered of great importance. Until, however, the affect unfolds into feelings, emotions and particular valuations and value-claims. When affects are being registered and labelled against previous affects, for instance, they become feelings. Due to the perspectival nature of any human being, every person has a distinct set of previous affects from which they interpret and label their feelings and draw their particular personhood and biography. Feelings become emotions when they are projected and displayed towards other human beings. In contrast to feelings, however, the display of emotion can - in addition to being genuine - also be feigned. We communicate and transmit our emotions to the world in ways that are sometimes an expression of our genuine internal state and other times it is planned and calculated in order to fulfil social expectations. The affect, bound to the perspectival nature of the human beings, then touches upon the feelings and moves people emotionally in a most profound way.

Based on this ideation of moralities being a sign language of the affects, Nietzsche would question – even apart from the value of such claims as "there is a categorical imperative in us" – what any value claim would tell us about the man who would make it? As such, he would argue that

> "there are moralities which are meant to justify their creator before others. Other moralities are meant to calm him and lead him to be satisfied with himself. With yet others he wants to crucify himself and humiliate himself. With others he wants to wreak revenge, with others conceal himself, with others transfigure himself and place himself way up, at a distance. This morality is used by its creator to forget, that one to have others forget him or something about him. *Some* moralists want to vent their power and creative whims on humanity; some others, perhaps including Kant, suggest with their morality: "What deserves respect in me is that I can obey - and you *ought* not to be different from me" (BGE, 187).

Even though Nietzsche knew little of Kant personally, these are not necessarily empty claims. He proves his awareness of affective states being psycho-physiological constructs in his genealogy of morals. In the first inquiry he explains how Christianity is born out of ressentiment and against the dominion of noble values. The second inquiry explicates how the moral concept of guilt has its roots in the material concept of debt. In it, Nietzsche sees conscience as the instinct of cruelty that turns back after it can no longer discharge itself externally. Such a promise between creditor and debtor could be discharged either through mercy from the hands of the master or through an active and healthy forgetfulness from the slave. In the third inquiry, Nietzsche explains the power of the ascetic ideal – a will to the end – as the absence of an alternative; "a counterideal was lacking" (EH-GM).

Based on this receptive and felt responsiveness to the world, people create a tendency toward a distinctive pattern of valuation. Take the perspective of commerce for instance. Although Nietzsche mentions avarice as one of the active affects (GM 2, 11), this might be a bit extreme, but it is not too hard to see how someone can be affected by good commerce; a sweet deal such as a purchase that one believes was a bargain or a beneficial business arrangement. When talking about the primitive personal relationship between buyer and seller (GM 2, 8), Nietzsche believed that it was here that people first encountered one another in that they first measured themselves against each other. There was no grade of civilization, however low, that Nietzsche believed has been discovered in which something of this relationship had not been noticeable. "Setting prices, determining values, contriving equivalences, exchanging – these preoccupied the earliest thinking of man to so great an extent that in a certain sense they constitute thinking as such" (GM 2, 8). It was here the oldest kind of astuteness had developed, and with it, Nietzsche supposed, did human pride and the *feeling* of superiority in relation to other animals. "Perhaps our word "man" (manas) still expresses something of precisely this feeling of self-satisfaction," Nietzsche

wondered; as the kind of man that would designate himself as the creature that measures values, evaluates and measures, as the 'valuating animal' as such. In the following chapter, however, I will improve upon Nietzsche in describing some of the active affects in a number of perspectives.

As a conclusion to this paragraph, based on this affective element, it has been argued that we create feelings and emotions that manifest themselves into how and what we valuate. Shortly put, what is deemed valuable in life is that what has positively affected a person from his perspective. An answer to how ethical forms of application can differ in intra-value conflicts can be formulated as follows:

ii. We value and revere those things that positively increase and aid our affect, setting in motion long-term orientation and conation for the *conduct* of such values. Based on a particular perspective, morality here is seen as the sign language of the affect which produces different (so-called) moral and value-interpretations.

§ 5: The Conative-Conflictual Element of Intra-value Conflicts

The backbone to the concept of perspectivism is that Nietzsche indisputably insisted upon the interpretive character of all human nature and existence. Nietzsche argued that "whatever exists, having somehow come into being, is again and again reinterpreted to new ends, taken over, transformed, and redirected by some power superior to it; all events in the organic world are a subduing, a becoming master, and all subduing and becoming master involves a fresh interpretation, an adaptation through which any previous "meaning" and "purpose" are necessarily obscured or even obliterated" (GM 2, 12). As such we tend to *subdue* a particular interpretation of a value belonging to the self over those of others. Based on the previous two elements of perspectivism – the cognitive-conceptual and the afffective-valuational – this can be seen as having two implications for intra-value conflicts. Due this particular subduing, we reason a reconceptualization of dissimilar value-interpretations, or, enforce an affect – 'effect a change' – in the conduct of values of others.

§ 4.1: Will-to-power as an Answer to the 'Conflict' in 'Intra-value Conflicts'

According to Nietzsche, *all events* in the organic world essentially involve a continuous reinterpretation depending on where and when the event would find itself caught in the web of will-to-power, at any time or place. Any human being would be completely and deeply involved in a struggle among interpretations. Each interpretation would include others by incorporating their elements of a proposition into its own and subsequently articulating these elements into its own system of interpretation. In this sense, each interpretation would open up a particular horizon of meaning and value.

For instance, when explaining how the interpretation of punishment came about in the Genealogy of Morals, Nietzsche argued that purposes and utilities for devising punishment were signs that a will-to-power had become master of something less powerful, and imposed upon it the character of a function. In extension to this notion, he argues that the "entire history of a 'thing,' an organ, a custom can in this way be a continuous sign-chain of ever new interpretations and adaptations whose causes do not even have to be related to one another but, on the contrary, in some cases succeed and alternate with one another in a purely chance fashion" (GM 2, 12). The 'evolution' of a thing, a custom, an organ, he would argue, would thus by no means be its 'progressus' toward a goal. Even less so would it be a logical progressus by way of the shortest route and with the smallest expenditure of force.

Rather, Nietzsche argued, this continuous sign-chain of ever new interpretations and adaptations depended on two things. On the one hand, it would be a succession of more or less profound, more or less mutually

independent processes of subduing. On the other hand, this subduing was brought into a state of unity due to the resistances these things would have to encounter. This encountering would manifest itself in defending, reacting and successfully counteracting against other attempts that tried to transform the interpretation. Nietzsche argued that the form would be fluid, but its very meaning even more so.

This could be read as some barbaric discourse, but can make an appearance in its most subtle form. Take for instance the simple meaning of the word happiness whose meaning has completely transformed,[27] or some of the numerous other words, of which some of them have even been subdued in such a way that the word has assumed its complete opposite meaning. This however, Nietzsche argues, does not only work for words, but for conscious thought and knowledge as well.

[27] Etymologically, happiness originally meant luck, fortune or fate and derived its meaning from the Middle English and Old Norse word *happ*, which was tantamount to a person's fortune in relation to what *happ*-ened in the world (McMahon, 2006). McMahon argues that strictly speaking, luck and fate are opposed to one another, in that the former implies randomness and the latter implies pre-established order. When considered from the standpoint of human happiness, however, the two are closely related in the sense that each denies the role of human agency in determining the course of human events. Whether the universe is predetermined or unfolds chaotically, what *happens* to us – our happiness – is according to luck and fate out of our hands. Yet not everybody shared this conviction as Democritus considered that fortune (*eudaimoniē*) did not dwell in flocks nor in gold, but that the psyche was the dwelling of the divine power of happiness and misfortune (*daimōn*, fr. 171). Current definitions of happiness, however, rather than only referring to a state of mind, also refer to a life that goes well for the person leading it. Kesebir and Diener (2008) for instance define happiness as 'subjective well-being,' referring to a person's evaluation of its live that encompasses both a cognitive judgment of satisfaction as well as an affective appraisal of moods and emotions (Kesebir & Diener, 2008).

In the previous chapters, it was explained how intra-value conflicts can be made comprehendible by way Nietzsche perspectivism based on the cognitive-conceptual, affective-valuational, and conative-conflictual elements. This, however, might not yet provide a clear idea or exact *impression* of how this can be understood when intra-value conflicts unfold within our contemporary context, within these Grand Challenges. This can be attributed to the structure of this thesis, in which a theoretical framework has been set out first. So how *do* intra-value conflicts with regard to technology surface.

To create an initial illustration, consider environmental sustainability. Looking at it linguistic form – in its most extrapolated and oversimplified appearance – it describes the quality of being able to maintain, continue, or prolong the existence of 'the environment.' Upon closer examination, however, it appears to signify a number of things. From a technological-engineering perspective, it appears to denote the ability for technology to sustain and possibly restore the environment. The activity within the technological-engineering perspective can be seen to be focusing on using engineering or technology to solve environmental problems. What is typically meant with environmental sustainability here is sustaining the environment through solutions that are found in better and new technologies.

From a scientific-ecological perspective, it appears to denote the property of biological systems to remain diverse and productive in which the reduction of negative human impact ought to lead to healthy ecosystems (environments) and is seen as necessary for the survival of humans and other organisms. The inquiry within these ecological sciences can be seen to focus on the diversity and richness among living organisms on earth, including the variability within and between species and within and between ecosystems. What is typically meant with environmental sustainability here is the human-ecosystem equilibrium or homeostasis.

From a commercial-entrepreneurial perspective, it appears to denote the ability for the environment to be sustained with *minimal* long-term effect on the environment, as long as it is not causing problems to a company's financial gains. The activity within these entrepreneurial activities can be seen to focus on maintaining a steady level without exhausting natural *or* financial resources or causing severe or ecological *or* financial damage. What is typically meant with environmental sustainability here are sustainable gains.

From a political-governance perspective, it appears to denote the capability for the environment to be sustained in order for its resources to be fairly distributed. The activity within these governance activities can be seen to focus on intra- and intergenerational justice in which it is ensured that one set of actors does not diminish the prospects and environmental resources of other (future) sets of actors. What is typically meant with environmental sustainability here is the wide-reflexive equilibrium and social-acceptance of the extent to which the environment should be sustained.

Additionally, other perspectives, such as aesthetic-artistic and social-cultural perspectives, can contribute to such intra-value conflicts. From an aesthetic-artistic perspective, for instance, it appears to denote the ability for the environment to be sustained for its beauty without 'destroying' the landscape. The activity within the aesthetic-artistic perspective can be seen to be focusing on the kind of environmental quality or combination of environmental qualities that gives pleasure to the mind or senses. What is typically meant with environmental sustainability here is sustaining compositional properties such as harmony of form or color, proportion, authenticity, and originality of the environment.

From a social-cultural perspective, it appears to denote the ability for the environment to be sustained as it is shaped up in the ideas, customs, social behavior, and public responses towards the other perspectives. The activity within the social-cultural perspective can be seen to be focusing on creating narratives that underpin public concerns on whether or not the other perspectives are capable of achieving environmental sustainability. This perspective typically includes narratives such as 'being kept in the dark' in reference to the governance perspective.

'Being careful what you wish for,' 'opening up Pandora's box,' and 'messing with nature' in reference to the science and technology perspectives. 'The rich getting richer and the poor getting poorer' in reference to the commercial-entrepreneurial perspective. And 'not in my back yard' in reference to the aesthetic-artistic and commercial-entrepreneurial perspective.[28] What is typically meant with environmental sustainability here is sustaining the environment in a way that the public feels righted instead of wronged. Such perspectives, however, have been considered to be outside of the scope of thesis.

Based on these interpretations of environmental sustainability, the argument could be made that each of these perspectives could contribute to a solution towards environmental sustainability, rather than causing a conflict; that each perspective has its particular part within the oiled-up human-technology engine, so that the combined energy that is being put in, is always converted into the proper force or motion toward tackling Grand Challenges. Although this could definitely be within the realm of possibilities, practice and literature seem to lean towards more problematic discourses.

One example of such a problematic discourse is the correlation between sustainable economic growth and environmental degradation, in which an increase in the capacity of an economy to produce goods and services is found to be negatively impacting the ecological environment. Rather than economic growth being part of a human-technology engine toward environmental sustainability, it is sometimes compared to the malignant growth of a cancer in the way that it eats away at the earth's ecosystem services which is then seen as its life-support system.[29] So what is at the absolute bedrock of this 'superficial' issue? The answer lies – in accordance with the structure of this thesis – in the previously mentioned theoretical framework.

One question that would arise then, would be how this framework would work for the perspectives mentioned above. Therefore, to put some flesh on the bones of this theory mentioned earlier, this chapter will determine the kind of constructs, affects and drives that are present in a number of perspectives. The first perspective that will be looked upon is the engineering attitude or disposition, as this disposition will always remain central to the very act of constructing a technology or artefact. Simply put, one cannot construct an artefact without constructing it.

§ 1: The Engineering Perspective

Hack mode
A zen-like state in which a programmer becomes one with the code
Urban saying

To provide for an engineering perspective, the following question is asked: what are the qualities – the practical skills and methods – and valuations that are being promoted in an engineering disposition towards technology? To do so, it might be helpful to briefly look the elementary factors of this labour-process such as addressed by Marx and Engels (1967). Marx and Engels for instance argued that labor was, in the first place, a process in which both man and Nature would participate, and in which man of his own accord would start, regulate, and control the material 're-actions' between himself and nature. They would argue that there were three elementary factors of the

[28] Other narratives being the 'slippery slope' narrative (that technological advances that seem beneficial now will inevitably evoke further technological steps and applications that are morally doubtful); the 'colonisation' narrative (that technology will spread out and ultimately colonise autonomy and agency); the 'Dr Strangelove' narrative (that science designed for 'good use' will become corrupted and manipulated by evil people); and the 'Trojan Horse' narrative (that innovations developed for progressive purposes will in the long term have unforeseen and potentially irreversible effects) (Macnaghten, Davies, & Kearnes, 2015).
[29] It is important to note, however, that the economy is a political instrument (not a commercial one) in which environmental taxes and emission trading systems are thought to be useful policy instruments to target the negative effects of pollution.

labor-process; i) the personal activity of man (i.e. work itself), ii) the subjects of that work, and iii) its instruments. As for the personal activity of man, they would argue that man

> "opposes himself to Nature as one of her own forces, setting in motion arms and legs, head and hands, the natural forces of his body, in order to appropriate Nature's productions in a form adapted to his own wants. By thus acting on the external world and changing it, he at the same time changes his own nature. He develops his slumbering powers and compels them to act in obedience to his sway" (1967, p. 177).

What would distinguish the worst architect from the best, was an architect's instinctive quality to *raise his structure in imagination* before he would erect it in reality. Due to this labor-process, we would get a result that would already existed in the imagination of the laborer at its commencement. Rather than only effecting a change of form in the material on which the laborer would work, he would above all realize a purpose of his own that would give the law to his modus operandi. To this imaginative purpose, the laborer had to subordinate his will, which Marx and Engels saw as no mere momentary act. In addition to the exertion of the bodily organs, such a process would demand that the workman's will had to be steadily in consonance with his purpose, during the whole operation. When the nature and the mode of the work in which it would be carried on would not be attractive, Marx and Engels would argue, the less stimulating and enjoying the labor would be, leading to forceful attention rather than giving play to bodily and mental powers. It is here that engineers are seized by one and the same affect with great consistency. The example of hack mode will be mentioned shortly hereafter. One such *imaginative purpose* could be considered the economization of time and mental effort in eliminating human liability to error by way of arithmetical computations. This aim of economization has led to the design and construction of a variety of aids to calculation (Aiken, 1937, p. 1) and the computers we have today. Beginning with the simple organization of small objects such as pebbles which were later mounted on wires in a fixed frame, it is this imaginative purpose of economization – giving the law to the computer scientist's *modus operandi* – to which the computing technology of today is realized.[30]

As for the *subject* of the work, these would include natural materials and raw materials. Natural materials where all those things which labor would merely separate from its immediate connection with its environment; things that were spontaneously provided by nature (e.g. fish, water, and fallen timber). Raw materials would include all those things which were filtered through previous labor, such as ore that was already extracted and ready for washing. In the present age, nothing has really changed; as we still use pure silicon ($_{14}$Si) to create semiconductor crystals and we still intentionally introduce impurities for the purpose of modulating the electrical properties through injecting elements e.g. Phosphorus ($_{15}$P) and Boron ($_{5}$B) to create the n-types and p-types.

Lastly, Marx and Engels would regard an *instrument* of labor as the kind of thing, or a complex of things, which the laborer would interpose between himself and the subject of his labor. This instrument would serve as the conductor of his activity, making use of the mechanical, physical, and chemical properties of some substances

[30] Prominent inventions as a result of this laborer's imagination are among others; Napier's numbering rods, William Schickard's and Pascal's first mechanical calculating machine, 'The Stepped Reckoner' of Gottfried Leibniz, Morland's Calculators, and Charles Babbage's Differences Engine which is widely considered as the first automatic calculator. Based on Herman Holleirth's idea of using punched cards to represent logical and numerical data, Howard Aiken approached IBM with a proposal for a large-scale calculator to be built from the electromechanical devices that were used for punched-card machines. This led IBM to produce various machines, including several plugboard-controlled relay calculators and the partly electronic Selective Sequence Calculator (SSEC) (Reilly, 2004). Due to current digital electronic circuitries we have today, our 'aids of calculation' are even more capable of carrying out more complex instructions. Computer scientists have for instance demonstrated that programs such as large, deep convolutional neural networks are capable of achieving record-breaking results on highly challenging datasets with the use of purely supervised learning. In furthering the development of the features of such networks, computer scientists are showing that compositionality, increasing invariance and class discrimination are desirable properties as the layers are ascended. Based on such properties, computer scientists have increased the depth of such networks, reduced the running time of these detection networks, as well as incorporated adversarial processes, spatial transformers, and incorporated other neural networks to achieve architectures such as the Multimodal Recurrent Neural Network.

that could be subservient to his aims. Outside of ready-made means of subsistence as fruits, nature would become one of the organs of activity, one that laborer would annex to his own bodily organs in order to add stature to himself. “As the Earth is his original larder, so too it is his original tool house,” (1967, p. 67) As such, nature would supply the laborer with, for instance, stones for throwing, grinding, pressing, cutting, etc. In this way, the earth itself was an instrument of labor, but when used in agriculture (among other things), it would indirectly make evident a whole series of other instruments and a comparatively high development of labor. This comparatively high development of labor could not be brought into existence without the requirement of specially prepared instruments. Such specially prepared instruments that currently prevail can for instance be seen as computer aided design programs, computer numerical control machines and photolithography. Marx and Engels considered the use of instruments a specific characteristic of the human-labor process, thereby referring to Franklin’s man as tool-making animal.

Why is this this distinction at all helpful? These elementary factors of the labor-process have been distinguished in order to demonstrate the importance of the engineer’s the modus operandi; his purpose and the way he raises structures in his imagination. Most philosophers of technology today would agree that technological development is a purpose-oriented process and, by definition, technological artefacts have certain functions. Because of the conceptual connection between technological artefacts, functions and purposes, it becomes increasingly difficult, if not impossible, to argue that technology is value-neutral. Most of these views are, however, based on the socio-cultural *impacts* of technology rather than being concerned with technology or the technological disposition itself. Carl Mitcham (1994) has categorized these views along the lines of ‘humanities philosophy of technology’, because most of these views Mitcham believes to be continuous with social science and the humanities. Ideas on what *ought* to be the purpose of the technological disposition, however, do not change the trajectory and the nature of the disposition *itself*, namely the practice of designing and creating artefacts.

And it is exactly in this purpose-oriented engineering practice that technology might not typically be value-laden within the socio-cultural context, but rather affect-driven with regard to *nature* of the disposition itself as well. In other words, the discovery of a solution to (especially after considerable effort) a self-proclaimed propose will positively increase and aid such an engineer’s affect. Or in terms of the computer scientist, for a lack of better words, ‘nothing coming close to cracking the code.’

On a brief note, to offer some clarity on this synthesis between the affect, postphenomenology, and the engineering perspective; what perhaps comes most close to such a feeling of ‘cracking the code,’ is Martin Heidegger's account of attunement [*Befindlichkeit*] through mood [*Stimmung*]. At the time, this notion was groundbreaking vis-à-vis contemporary accounts of feelings and moods. On his account, a mood was one of the basic modes through which human’s experience the world and through which the world is made present to humans. More importantly for this thesis, he saw moods as the lenses through which aspects in the world are found to be important. Heidegger, however, did not connect moods to mental states that would result from, arise out of, or would be caused by someone’s situation or context. This, however, is exactly where the affect becomes the kind of primordial disclosure of such moods, as proposed by Nietzsche. More importantly, the affective element of perception – which is capable of surviving the phenomenological reduction - has a determinacy of character that nobody can create, but only *discover*. Ipso facto, *from* a particular perspective. As such, moods are not only fundamental modes of existence that are disclosive of the way a person is or finds oneself [*sich befinden*] in the world, the affect is its source. In literature however, the affect is hard to describe and measure, to which it moves in uncomfortably tight circles and often has to resort to affective neuroscience.

Following this modus operandi of engineers, it is then this kind of self-fulfilling prophecy that creates the kind of positive feedback loops between the imaginative purpose and the attained solution that create feelings and emotions that manifest themselves into how and what engineers valuate; namely the actual production or contrivance of a technology after using one’s ingenuity and imagination. This is a ‘feel’ that is hard to put into

words, but nonetheless will play a fundamental role in the development of future technological developments. Although cognitive dissonance theory and the related self-perception theory are promising in that engineers will often change their *attitudes* to come into line with what is expected from them within the socio-cultural context, it is important to know that what engineers ultimately come to *value* is designing the solution, not unravelling the problem. If being enthralled and captivated in the process of working towards a technological solution is the *primary active affect*, what becomes valued are then always the technological solutions. On their own, any value-interpretations from an engineering perspective will always result in solutions that are found in better and new technologies. How this works will be explained in the next section.

§ 1.1: The Engineering' Modus Operandi

In the engineering literature, the design process can be described as being composed of a series of translational steps (e.g. Suh, 2001). These consist of the establishment of functional requirements[31] and its translation into design specifications.[32] Whereas the scientific method often starts with a scientific question, engineering sciences commonly start from questions related to practical problems and applications (Boon, 2006; Boon, 2011), e.g. the problem of how the functioning of integrated circuits can be improved. These practical problems and applications are often embedded in problems and successes that are associated with already existing solutions, costs, and marketplace needs (Eide, Jenison, Mashaw, & Northup, 2002).

The biggest idealization – and supposedly the biggest problem that this translational scheme of the design process contains – is potentially located at the start. Starting from questions related to practical problems and applications in which engineers can deploy their problem finding skills and creative problem solving skills, the design task often originates outside the actual customer needs or wishes. Although many design exercises are defined by engineers themselves – such as noticing a potential improvement in existing products – more often than not the design process starts with a problem pointed out by some societal agent. "It is rather that the one (the pedant, the technician, the copyist) is content or only able to apply his knowledge, technical skill, or graphic talent to situations where the problems for solution have already been formulated," Getzels (1979) has argued on a theoretical note.

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[31] A first step in the series of translational steps can formulated as the establishment of functional requirements, which then define the design task that an engineer, or a team of engineers, has to accomplish. These functional requirements serve as a specification as to what the device is to precisely be designed for and what it must be able to do (Suh, 2001). This step is often seen as essential as it controls the design of the project throughout the engineering design process. Because customers usually focus on just one or two features of the final technological artefact, it is considered important to pay attention to basic elements such as functions, attributes, and specifications of the technological artefact that are necessary to support the functionality that users 'need' and desire (Ralph & Wand, 2009). Based on a feasibility assessment – which determines whether the project is an achievable idea and whether it is within cost constraints – the engineering project can proceed into the design phase (Ertas & Jones, 1996). During a final conceptual study – through techniques such as morphological analysis, synetics, and brainstorming – ideas are generated and their pros and cons are weighed.

[32] In a second step (the design phase), these functional requirements are translated into design specifications. According to the design specification, the exact physical parameters of crucial components are set out by which the functional requirements are going to be met. During a preliminary design, in which the overall configuration of the system is defined; combining and amending all the design parameter into schematics and other layouts such that a blueprint of the device results. This early project configuration or blueprint contains all the details that are deemed necessary so that the final step to the process of manufacturing the device can take place. This blueprint– or detailed design – is, however, not the end result of a design process. During this preliminary design phase, each design parameter is thoroughly elaborated upon through for instance solid modelling. Actual copies of a device as such are crucial for the purpose of the next phase of the design process; prototyping and testing. Prototyping and testing, as the words are already indicating, involve a sequence of steps that make up the design process and can and will often contain iterations until a specific result is achieved. This iteration often leads to a revision of the design parameters as well as the functional requirements. An important modern development can be considered that the designing engineer has to take into consideration the complete life cycle of an artefact. This includes the final stages of the recycling and disposal of its components and materials. Functional requirements such as put forth in the earlier stages of any device should already reflect this concern. As such, neither a blueprint nor a prototype can be considered the end product of engineering design (Suh, 2001).

What positively fuels the engineer's affect is therefore not accounting for the social emotions and the sentiment of members of a certain society, but for the *solution*. Since the solution always comes in functional requirements which are then translated into design specifications, the distinctive pattern of valuation with regard to technology centres around the technological *resolution*. What is fuelling the affect positively might not be creating a positive affect *for* members of society, but for instance the time spent in a state of flow (Csíkszentmihályi, 1990) – being "in the zone," "hack mode", or "operating on software time," as is often colloquially said – in which flow is an innately positive experience known to produce intense feelings of enjoyment. In this engagement with technology, an enormous cascade of neurochemistry of norepinephrine and dopamine will flood the system, increasing the power of focus, and boosting the engineer's imaginative possibilities (Dietrich, 2014). Yet, it is often said that engineers are cold and dead inside.

Based on this affect, whatever the nature of the problem seems, engineers often give off the impression (with a certain show of certainty) that it is they that are best qualified to provide a solution for the kind of problem that is laid out. Depending on the social context, the engineers themselves construct an idea of what ought to be, taking it upon themselves to realize these ideas. This is primarily due to, in terms of Marx and Engels, engineers having the instinctive quality to raise a structure in imagination before they would erect it in reality. 'Engineering *is* problem solving,' a great amount of engineering departments all over the world proclaim. Because many engineers are intrinsically motivated to provide a solution to a problem, they are, so to speak, their own best customers.

Engineers, however, might not necessarily have the best solution and their solutions might even result into what is called a technological fix[33] (Volti, 2009), causing further complications of the initial problem. Based on the purpose engineers have in mind, much technological development can be seen to be 'technology-driven'. Cognitively and conceptually, the kind of things that are then referred to and evaluated as having desirable or esteemed characteristics or qualities, are then those things that can be achieved through technological development in itself. Values such as environmental sustainability, for instance, might always be construed, simplified, and equated in terms of establishing functional requirements and translating them into design specifications. With regard to risk and information, for instance, engineers might frame the risk about issues with regard to contested technology a lot lower than other perspectives based on their assessment of the risk. Engineers who for instance understand the technical aspects of hydraulic fracturing are probably accessing the risks of fracking differently than the kind of public which are living near the fracking locations.

As such, what might be stressed in an intra-value conflict from an engineering perspective can be technological development in itself and the subsequent pleasure of the solutions hereof. Well known examples with regard to sustainability, for instance, are geo-engineering technologies such as Solar Radiation Management (SRM) and Carbon Dioxide Removal (CDR). These technologies can be seen as a distraction from reducing emissions and more of an adaptation to global warming. Additionally, windmills might constitute hazards for animals and some types of solar energy can have an impact on ambient temperature, which in turn can also be hazardous to birdlife. Well known examples with regard to our well-being are phones and portable computers. These technologies can make us more efficient, but can cause great stress as well. They can make us more connected, but can cause a considerable amount of reclusion as well.

§ 2: Value Sensitivity: Beyond the Engineering Perspective and Modus Operandi

In opening up and revealing the conditions of possibility that make particular technologies show up as meaningful and necessary, attention is paid to a very singular kind of co-constitution: the technological attitude or

[33] In a technological fix a technical solution is provided as the solution for a problem where it is questionable whether this will actually solve the problem or whether it is the best way of dealing with the problem (Volti, 2009).

disposition that is rendering artefacts meaningful. A potential problem arises in the scenario that even *if* the engineer portrays value sensitivity towards society in his design, it might have no effect if the reasons by which the design was ordered or issued (e.g. through commerce or governance) was unsensitive to societal values in the first place. Hence, if post phenomenological approaches are to be committed to positing technology and society as immediately and already drawing upon one another for its ongoing sense and meaning, they also have to look at technological attitudes and dispositions that are for instance fashioned by other perspectives.

In the previous engineering perspective, the affect has been placed inside of intentionality. As described throughout, this is part of the overarching employment of Nietzsche within this thesis of going beyond Good and Evil and actually looking at tripartite perspectival nature of people. As will be explicated in the last chapter, the more affects we allow to speak about one thing, is – among other things – pivotal in preventing mistrust, strained and hostile communication, negative stereotyping, and non-negotiability about the pursuit of values and deemed necessary for Tackling Grand Challenges. In continuation of the previous engineering perspective; whereas the technological disposition and its engineers might typically be content and able to apply their knowledge and technical skill to self-fulfilled prophecies, who *are* good at what is called 'need-finding' are typically entrepreneurs. As such, successful entrepreneurs are seen as being able in uncovering user's needs and opportunities for technological improvements. Therefore, in the next section, the distinctive qualities and patterns of valuation within a commercial-entrepreneurial perspective will be explored.

§ 2.1: The Entrepreneurial Perspective on Technology

"Fortēs fortūna adjuvat"
Latin proverb
Fortune favours the **bold**

To provide for an entrepreneurial perspective, the following question is asked: what are the qualities – the practical skills and methods – and valuations that are being promoted in an entrepreneurial disposition towards technology? To do so, it might be helpful to briefly look at the elementary factors of what entrepreneurship entails. Based on early theories of Richard Cantillon and John Stuart Mill, a number of theories have developed on how the entrepreneur profits from uncertainty and how he takes the necessary risks. Hébert and Link (1989), for instance, have argued that the taxonomy of entrepreneurial theories could be condensed into three major intellectual traditions – originating either in Chicago, Germany or Austria – each one tracing its origin to Richard Cantillon. The most notable contributions, so they argued, had been made by authors such as Frank Knight, Joseph Schumpeter, and Israel Kirzner.

According to Kirzner (1997) mainstream neo-classicists interpreted the real world of markets as if observed phenomena represented the fulfilment of perfect equilibrium conditions. Kirzner (1997) has provided two prevailing criticisms with such a perfect equilibrium. A first criticism would relate to an unrealistic character of neoclassical theory to both the way in which individual decision-making would be modelled in this theory, and the way in which this theory would see real world market outcomes as satisfying the conditions for equilibrium. A second unhappiness with the basic methodological foundations for (Austrian) unhappiness with mainstream neoclassical preoccupation with equilibrium models, did not have so much to do with the false and misleading picture of real markets – which the standard deployment of these models would entail –, but more so with the instrumentalist view of theory which neoclassical equilibrium-pre-occupation would set forth.

The entrepreneurial discovery approach such as proposed by authors such as Kirzner has emerged in modern economics out the elements of theories of authors such as Mises and Hayek. According to Mises (1949) for instance, the driving force of the market process would neither be provided by the consumers nor by the owners

of the means of production – such as labor, capital, and land – but rather by the promotion and speculation of entrepreneurs. Mises saw profit-seeking speculation as the driving force behind the market as he conceived it to be driving force of production (Mises, 1949). Hayek (1948) argued that the perfect equilibrium model would assume that the data for the different individuals were fully adjusted to each other. The real problem that would require the most explanation would be avoided, Hayek argued, which he considered the nature of the process by which such data was adjusted. Competition, Hayek insisted, was essentially a process of forming an opinion. Such a process would involve a continuous change in the data. Its significance within perfect equilibrium theories must therefore be necessarily and completely missed when treating this data as constant. Based on works such as those of Mises and Hayek, Kirzner (1997) has put forth three interrelated analytical concepts to which the modern entrepreneurial discovery theory of the market process operates. These concepts can be described as the entrepreneurial role, the role of discovery, and rivalrous competition.

As for the entrepreneurial role there is, in standard neoclassical equilibrium theory, by its very character, no role for the entrepreneur. If the equilibrium theory would be accepted, there would be no scope for pure profit: there would simply nothing for the entrepreneur to do. Whereas each neoclassical decision-maker would operate in a world where the price and output data would be pre-given, the entrepreneur rather operates on changing prices and the output data. Along these lines, the entrepreneurial role drives the ever-changing process of the market. As such, the entrepreneurial role can be understood by their tendency to look for profit opportunities that are generated by *noticing* and *grasping* earlier entrepreneurial errors, which is coined the role of discovery. One could phrase this in terms of affects being registered and labelled against previous affects, in which the entrepreneur achieves his 'feel' for profit opportunities.

The second interrelated element of Kirzner (1997) – the role of discovery – related to a process called mutual discovery. In this process, market participants are becoming better informed of the plans that are being made by other participants. Whereas some initial plans would have to turn out to have been mistaken as a result of initial entrepreneurial error, these errors would tend to systematically become eliminated as market experience reveals the infeasibility of some hitherto sought after procedures. Contrary to mathematically correct and static equilibriums, the market-process of entrepreneurial discovery would produce flawed plans (i.e. those created on the basis of an erroneously imagined decision framework). These erroneous errors would then be corrected through the responsiveness of alert, imaginative entrepreneurs. The errors would in turn reveal themselves as opportunities as a result of the initially flawed plans. What this market-process of entrepreneurial discovery postulates then is that there is a tendency by routine-resisting entrepreneurial market participants to discover and grasp profit opportunities.

This can be explained by the third interrelated analytical concept of Kirzner; rivalrous competition. More precisely than just particular cognitive errors, what would be driving the market process would be entrepreneurial *boldness* and *imagination*. Subsequently constituting this process would be the series of discoveries generated by that entrepreneurial boldness and alertness (Kirzner, 1997).

One could question that arises – much like Marx and Engels' three elementary factors of the engineering labor-process – is why this distinction is at all helpful? It is exactly this boldness and imagination in the entrepreneurial practice that is affect-driven with regard to *nature* of the disposition itself as well. In addition to prior learning, market intelligence, and a deep understanding of the investment and the financial world, a large part of literature seems to point out that successful entrepreneurship is largely based on intuition, or more concretely; the affect. In this sense, entrepreneurial intuition is the affectively charged recognition and evaluation of a business venturing opportunity that originates out of rapid, non-conscious, involuntary, and associative processing (Sadler-Smith, 2016). More precisely, as will be explained shortly hereafter, the entrepreneur typically achieves his 'feel' for discovering and grasping profit opportunities through his entrepreneurial drive of *boldness* and *imagination*. As a result of fortuitous business deals that positively increase and aid the affect, entrepreneurs

can typically come to value and revere the kind of perceived satisfactory development, advancement and progress that comes with it. In other words, that 'winning feel' or 'winning mood' as a result of epinephrine boosting energy and mental activity and endorphins binding the pain receptors. But why is this important regarding intra-value conflicts?

Psychological literature has demonstrated that during intractable disputes, most people are more likely to focus on threats of potential loss rather than on opportunities for gains (Tversky & Kahneman, 1981; Schweitzer & DeChurch, 2001). Most people have the inclination to respond differently to a suggested action when its expected consequences are framed in terms of losings as opposed to gains. The anticipation of a perceived loss is often considered more prominent and higher valued than engrossing a commensurate gain. Although this might hold true for almost anyone else, the entrepreneur might not be one of them. As for the example of environmental sustainability mentioned earlier, whereas most people would focus on the *potential harm* of for instance shale gas and fracking (e.g. contamination of groundwater, methane pollution and its impact on climate change, air pollution impacts, exposure to toxic chemicals, blowouts due to gas explosion, waste disposal, large volume water use in water-deficient regions, fracking-induced earthquakes), entrepreneurs will typically focus on the *gains* that can be obtained from shale gas and fracking (e.g. the *opportunity* to 'realize cheap and relatively quick CO2 reduction,' the *opportunity* to improve the economy and the *opportunity* to increase the amount of jobs. This is – at least for a substantial part – because of the 'nature' and intuition of the entrepreneurial disposition as mentioned above.

What will always happen is that entrepreneurs will simplify the world according to the kind of gains (e.g. non-profitable benefits, 'progress,' or the possibility to obtain a profit) that will arise in potentially perilous situations and opportunities, leading to for instance conceptualizations of environmental sustainability in terms of sustainable economic development. As such, what might be stressed in an intra-value conflict from an entrepreneurial perspective can be the aspect of opportunistic gain in itself.

In and of itself, there seems little wrong with entrepreneurs boldly and imaginatively benefitting from opportunities, since entrepreneurs are doing a great job of catering to human needs.[34] Tech entrepreneurs can be seen as important for making particular technologies show up as meaningful. Whether it is a start-up in the garage or on university campus, or as "spinoffs" or "spinouts" of existing companies, numerous entrepreneurs envision their technological concept to profitably provide for the things that society requires and desires. In a perfect world, entrepreneurs (including so-called social and environmental entrepreneurs) would be willing to take the necessary risk to achieve the desirable states of the members of society. Especially with more informed consumers and behavioural changes taking places, the market process would determine what would be of value to society and what not. The problem is, however – much like the engineer's technological fix described earlier – when the feelings of exultation derived from successfully discovering and grasping profit opportunities turn into the excessive desires for personal gains, rather than societal need-finding. How this works will be explained next.

2.1.1. The Entrepreneurial Spirit

To return to the question posed at the beginning of this entrepreneurial perspective; "what are the qualities – the practical skills and methods – and valuations that are being promoted in an entrepreneurial disposition towards technology?" we can formulate the following answer. According to empirical research, two broad categories of factors can be found in the entrepreneurial literature that influence the probability of particular people discovering particular opportunities. A first category involves the possession of prior information necessary to

[34] Assuming that a welfare state is the best solution humanity can come up with, in which the lower class can purchase those things which are deemed necessary for equal opportunity.

identify an opportunity and a second category involves the affective and cognitive properties necessary to value it (Shane & Venkataraman, 2000).[35]

Regarding the possession of prior information to discover particular opportunities, individual factors include financial capital (Evans & Leighton, 1989), strong social ties to resource providers (Aldrich & Zimmer, 1986), useful information for entrepreneurship from their previous employment, the transferability of information from prior experience to the opportunity (Cooper, Woo, & Dunkelberg, 1989), and prior entrepreneurial experience (Carroll & Mosakowski, 1987). Such factors reduce what is called the opportunity cost and lead to the pursuit of alternative activities in decision-making. In other words, these factors inform the entrepreneur on whether or not to exploit and pursue a certain opportunity when the opportunity cost is perceived to be low (Amit, Mueller, & Cockburn, 1995; Reynolds, 1987).

Regarding the affective and cognitive properties necessary to exploit a profitable opportunity, a main individual factor for entrepreneurs includes overconfidence. In addition to the willingness to bear risk in the decision to exploit opportunities (Khilstrom & Laffont, 1979), entrepreneurs who exploit opportunities tend to frame information more positively and then react to these positive perceptions (Palich & Bagby, 1995). This optimism translates into the tendency of entrepreneurs who typically perceive their likelihood of success a lot higher than they realistically are, much higher even than those of others in the industry (Cooper, Woo, & Dunkelberg, 1988). Based on the fact that most new firms fail (Dunne, Roberts, & Samuelson, 1988), and few firms ever displace incumbents (Audretsch, 1991). Research is suggesting that entrepreneurs who typically exploit opportunities are, on average, excessively optimistic about the value of the opportunities they discover. This over-optimism, tends to lead entrepreneurs to act first and analyse later (Busenitz & Barney, 1997), search for relatively small amounts of information (Kaish & Gilad, 1991), and thereby triggering and stimulating overly bright forecasts of the future in the exploitation of the opportunity (Kahneman & Lovallo, 1994).

What is at stake is that the boldness and imagination changes into the psychological behaviour of subsequent success. When the 'winning feel' turns into the kind of avarice in which "greed clarifies, cuts through, and captures the essence of the evolutionary spirit," and, as a result, the quality of entrepreneurial innovation is converted into capital beyond the needs, wants and demands *of* society.

In other words, when the initiation of useful change or innovation is successful for once, the entrepreneur commits to a hasty generalization.[36] This might lead to the entrepreneur producing a failed composition to make a sweeping generalization, committing to hot-hand fallacies, and making an appeal to probability while suppressing evidence. This kind of faulty inductive reasoning becomes problematic when the receptive and felt responsiveness to the world in terms of success and achievement (based on such fallacies) is taken as representative to the desirable states of the members of society, rather than the initiation of useful change or innovation. However, due to their nature of framing information more positively and estimating their likelihood of success a lot higher than they realistically are, it might be no surprise that they come to value success (or destruction of the creative) over actual Schumpeterian creative destruction.

As such, what might be stressed in an intra-value conflict from an entrepreneurial perspective can be the gain in itself, and the subsequent success hereof. Based on this fallacious inductive reasoning, the technological infrastructure might become so ingrained into society that there can no longer any creative destruction. In other words, by way of unlimited gains no disruption of the status quo can take place, therewith squandering the potential to transform our world for the better. These unlimited and excessive gains might in turn lead to overexploitation, and with it – among other things – the produce of stuff we don't need, affective conditioning in advertising having consumers chase things they don't actually like, companies "too big to fail" and "tragedy of the commons". As for

[35] Scott and Venkatraman (2000) did not mention affective properties explicitly, although many psychological terms are intrinsically related.
[36] Inductive reasoning fallacy that occurs when too few examples are cited to warrant a conclusion.

sustainability, for instance, that what can be seen as sustainable might be a local and healthy mix of renewables, but for entrepreneurs this might make absolutely no sense when looking at operational costs, cost of land, transmission costs, andsoforth in comparison to technologies that are increasing their profits. That is why entrepreneurs are putting forth shale gas, for instance, as offering the opportunity to 'realize cheap and relatively quick CO2 reduction.'

As was previously stated, the technological disposition and its engineers might typically be content and able to apply their knowledge and technical skill to self-fulfilled prophecies. On top of that, entrepreneurs might be good at 'need-finding', but can easily substitute their innovativeness for success to the end of irrelevant gains. Instead of this bottom up approach, one argument could be made that these dispositions need to be either directed, modulated, or controlled. As such, governance can be seen as being able to direct such dispositions toward socially desirable ends. Therefore, in the next section, the distinctive qualities and patterns of valuation within a governance perspective will be explored.

§ 2.2: The Governance Perspective on Technology

"It's good steering with wind and tide"
Dutch Proverb

To provide for a governance perspective, the following question is asked: what are the qualities – the practical skills and methods – and valuations that are being promoted in the governance disposition towards technology? An initial answer to this can be found in one of the earliest and most telling metaphors that was presented by Plato's Socrates in his fifth book of the Republic. Socrates' metaphor consisted of a ship-owner and his ship, which was presented to represent and symbolize a guardian and his state. What governance commonly entails, according to Plato's Socrates was the kind of steering that keeps all actors on the boat satisfied, rather than sailing the proper course according to someone who knows the direction. As such, what is commonly required of someone in charge within governance is representing the interests of those who are involved.

Plato's metaphor alone obviously doesn't do justice to what it means to administer public policy and affairs. But if we look past the metaphor presented by Plato's Socrates, the metaphor is still very alive as a working definition. In Kooiman's Modern Governance (1993, p. 2) for instance, governance is defined as all those activities of social, political and administrative actors that can be seen as purposeful efforts to guide, steer, control or manage (sectors or facets of) societies. As such, over the span of 2373 years or so, not much seems to have changed. The notion of governance is, however, becoming increasingly complicated when considering modern day dynamics in which such professionals operate. As of the last few decades, a paradigm shift has taken place in public administration (Morse, 2008). The image of public administration such as presented in a Weberian hierarchy is giving way to an image of 'the interorganizational network.' Rather than an emphasis on command-and-control, the current buzzwords seem to be collaborate-and-connect. This is, of course, is not only unique to public administration, but is rather part of a larger trend that is transcending sector and place.

Why is indicating this transition towards collaborate-and-connect at all helpful? It is exactly in this collaborate-and-connect practice that governance might not only be value-laden within the socio-cultural context, but also affect-driven with regard to nature of the disposition itself as well. More specifically, on the dyadic and intra-individual level, positively connecting with other actors will positively increase and aid such a governance professional's affect. Being a recipient of great compassion will positively affect the ability to feel warmth and compassion for oneself. It will release oxytocin, reduces cortisol and calm cardiovascular stress that produces feelings of empathy and approval (Hurlemann, 2010), which can be considered important for the kind of governance professional that craves acceptance in such a collaborate-and-connect approach Based on emotional

contagion theories, the emotions of governance professionals are directly triggered by those of whom they are collaborating and connecting with, implying a necessary amity or comity. The stronger the affects, feelings, and emotions of sets of actors that can be received by the government professional, the more intense the governance professional's reaction will be in unconsciously mirroring the expressions of these emotions and establishing a feel with regard to the reflection of those emotions.

This becomes problematic, however, when the emotions and concerns of other perspectives are taken for granted and are seen as inevitable in resolving or steering the kind of differences in many of the intractable disputes, regardless of its scientific verifiability or ethical acceptability. With regard to environmental sustainability, for instance, what might be taken as definitive is the unequivocal support of the public who might be poorly informed about environmental issues or large commercial enterprises who want to continue profitable, yet unsustainable, endeavours. Solely fostering this deep authentic affective experience of emotional synchronicity between individuals – and its regulation of governance professionals through coordinated emotional interchanges as a result of it –, might result in prioritizing reaching 'common ground' rather than critical reflection.

Based on this affect and paradigm shift in governance, it appears that in terms of process frames and conflict-management literature, current governance practices have the tendency to determine which alternatives are more *effective* in particular situations, which then becomes favoured over a governance professional's ability to critically reflect upon alternative options. What might become important is dealing with the *structure* or *affairs* of government and politics, creating the necessary bureaucracy for the proper implementation of governance. When one simplifies the conflict through one particular conflict-resolution lens, however, one tends to be oblivious for competing solutions, without giving them the careful evaluation they might merit. The same goes for a number of approaches focusing on 'midstream modulation', public engagement, and social-technical collaborations, specifically those with little to no intervention from a critical stance. On the one hand, the focus on reflexive participation by engineers to bring societal considerations to bear on their work might precede its cause as indicated earlier in the engineering perspective. On the other hand, the focus on inclusiveness by including more actors might become dependent only on the cultural logic of the human actors who adopt and use the technology.

What governance has now ended up with are 'governance networks' and 'meta-governance'. Meta-governance is then seen as the organization of self-organization (Jessop, 1998). As such, authors such as Peters and Pierre (2000) see governance as the articulation and pursuit of collective interests in the "post-strong state" era. A governing body would perform such meta-governance by steering – rather than rowing – through contracts (Brinton & Provan, 2000). Governance and public management is then becoming more of a network management in situations of interdependencies (Kickert, Klijn, & Koppenjan, 1997). Such network management aims at coordinating actors' strategies with different goals and preferences with regard to a certain problem or policy measure within an existing network of interorganizational relations. This kind of management aims to initiate and facilitate interaction processes between actors, thereby creating and changing network arrangements for better coordination.

What might be lost in such spaces is the kind of principles and belief in relation to issues such as the human condition. The approaches are admirable in the sense that they tend to create genuine and open reciprocity rather than closed structures and hierarchies. Nonetheless, in doing so, fundamental questions about how human-technology relations can promote and nurture existential growth and development, as well as considerations about the meaning and understanding of human-technology relations, might be overlooked. As such, such collaborate-and-connect approaches can commit to a fallacy ad populum and jumping the bandwagon, in which the agent appeals to the emotion or the common consensus of the crowd.

What happens as a result of this steering is that governance professionals focus on intra- and intergenerational justice in which it is ensured that one set of actors does not diminish the prospects and resources of other (future) sets of actors. As mentioned earlier, with regard to environmental sustainability, what might be

understood as environmental sustainability is the capability for the environment to be sustained in order for its resources to be fairly distributed. What is typically meant with environmental sustainability here is the wide-reflexive equilibrium and social-acceptance of the extent to which the environment should be sustained.

With regard to sustainability, such a collaborate-and-connect approach might prevent valuable clean and green technology (e.g. the noise of windmills), as it might be intrusive to the comfort of people's lives, contrasting their right to live long dignified, comfortable, and productive lives. Similarly, with regard to well-being, positive computing and 'technology for well-being' seem to be capable of enabling stress management, positive emotions, and empathic social interaction at our work-place through more and more collaborativity and flexibility. However, a large part of society seems to be incapable to adapt. Due to the pace of near-constant waves of innovation driven by these new technologies, a large part of traditional jobs are being destroyed, making the skills of these people obsolete. In not being capable of adapting to this level of hyper-accelerated pace change, the interorganizational network aims at preventing these kinds of disparities, inequalities and other forms of apparent maldistribution. What can be stressed in an intra-value conflict from a governance perspective can then be *social justice and equity* in itself, and the subsequent unconditional inclusiveness hereof.

If entrepreneurship and governance come with their limitations, one could infer into the theoretical explanations of the (social) sciences. Therefore, in the next section, the distinctive qualities and valuations within a scientific perspective will be explored.

§ 2.3: The Scientific Perspective on Technology

> "One cannot help but be in awe when contemplating the mysteries
> of eternity, of life, of the marvellous structure of reality."
> *Albert Einstein*

To provide for a scientific perspective, the following question is asked: what are the qualities – the practical skills and methods – and valuations that are being promoted in a scientific disposition towards technology? To do so, it might be helpful to briefly look at what is understood as science and two elementary factors involved in the related labour-process such as addressed by Mill and Whewell.

Following Aristotle's Organon, Bacon Novum Organon, Galileo's Saggiatore, and Descartes' method of doubt, Newton's Regulae marked the beginning to which the certainty of scientific knowledge had been generalized to include inductive procedures as well (Hoyningen-Huene, 2008; 2013). As a result, scientific knowledge now ought to infer explanations from observations, not to invent systems. This warrant offered for scientific claims by means of inductive justification, was, however, also undermined by philosophers such as Hume in terms of the 'inductive problem'. Kant, 'awoken in his is dogmatic slumbers' by Hume's inductive problem, would argue that the innate capacity for judgment was to be the central cognitive faculty of the rational human mind, and with it introduced an important question within the scientific discourse; whether there was any role for the *scientist* during the discovery phase or what is called "radical" and "revolutionary" conceptual change (Nersessian, 1992).

Central to this debate could be seen John Stuart Mill and William Whewell. Mill would for instance argue that "in so far as a natural classification is grounded on real Kinds, its groups are certainly not conventional; it is perfectly true that they *do not depend upon an arbitrary choice* of the naturalist" (Mill, 1846, p. 439)(own emphasis). Contrary to Mill, Whewell would argue in his Novum Organon Renovatum, that in induction, "there is a New Element added to the combination of instances *by the very act of thought by which they were combined*" (Whewell, 1847, p. 48)(own emphasis). This "act of thought" is a process that Whewell would call 'colligation'. Under colligation, Whewell understood the mental operation of bringing together a number of empirical facts by

"superinducing" upon them a conception which would unite the facts and would render them capable of being expressed by a general law. In short, Whewell was arguing that scientific reasoning – prior to the discovery of laws – had and should involve the creative a priori development of concepts, whereas Mill was claiming that observation and induction alone could determine or discover facts about the world and elicit its concepts used in science (Snyder, 2006).

Why is this distinction at all helpful? It is exactly because this "creative a priori development" is often taken out of often the equation, and the scientist is taken as a ratiocinative human. His epistemic values are taken to be accurate measurement and representation of natural phenomena, including criteria like exactness, objectivity, verifiability, and reproducibility. And, as a result, what are left in literature are only the kind of non-epistemic socio-cultural values. But to label scientists as solely ratiocinative would not do justice to the nature of the scientific disposition.

What sparks and fuels the scientist's curiosity and fascination are the most basic questions about the universe and human life; science as the art of interrogating nature, with a commitment to understanding the natural world. The drive to learn new information is often initiated by the anticipation of reward, which is naturally tied to a notion such as curiosity (Costa, Tran, Turchi, & Averbeck, 2014). Research has indicated that the striatum will lit up like an inferno of dopamine as well as opioid chemicals surging into the brain, when being on the verge of solving a startling mystery, hoping to be rewarded. Take for instance Einstein's thought experiment of chasing after a beam of light to problematize emission theories. On the basis of emission theory, he imagined himself observing a "beam of light as an electromagnetic field at rest though spatially oscillating." But, he concluded as a result of the thought experiment, that neither on the basis of experience, nor according to Maxwell's equations this could be so, since, so he argued, "from the very beginning it appeared to me intuitively clear that, judged from the standpoint of such an observer, everything would have to happen according to the same laws as for an observer who, relative to the earth, was at rest" (Einstein, 1970). This is what keeps the true scientists going and awake at night. Yet, values such as curiosity and fascination are rarely recognized as non-epistemic values, even though they might be exercising some of the most powerful and irresistible influences on the affect. It finds its exclamation of triumph upon discovering or solving something in the uncommon event of hearing the (oft-sequestered) scientist shout 'eureka!'

It is then this process of discovering that creates the kind of positive feedback loops between the curiosity and the attained discovery that creates feelings and emotions that manifest themselves into how and what scientists ultimate valuate; namely the satisfaction of one's curiosity (i.e. laws of nature). Much like the engineer's 'being in the zone' in which hyperfocus is provoking enjoyment, being deeply in awe of the workings of the world is a 'feel' that is hard to put into words, but nonetheless plays a fundamental role on when its clashes with other types of affects. On their own, any value-interpretations from a scientific perspective will always result in the kind of claim that can be validified and settled by referring to observations of phenomena *as a result of* this fascination and curiosity.

With regard to environmental sustainability, in reference to the cognitive-conceptual element, the kind of simplification of the world according to the kind or constructs that are present for ecologists is very clear. In the current cognitive–historical analyses of science, most discussions on the representational forms of conceptual structures focus on schematic models and theoretical models (Gentner & Stevens, 2014). Authors such as Darden (1991) and Bechtel & Richardson (2010) have considered science as problem solving and have investigated scientific problem solving as a specialization of the general concept of problem-solving. According to Nersessian (1999), a minimalist version[37] of a mental modelling hypothesis for scientists can be described as following: in

[37] Due to its controversy, its most acceptable form.

certain problem solving tasks humans reason by constructing an internal model of the situation, events and processes that in dynamic cases provide the basis for simulative reasoning.

A recurrent element that can be found in mental models are the use of analogies[38] and its subspecialties of imagistic reasoning, thought experiments and limiting case analysis (Nersessian, 2008). Several philosophers of science have emphasized on the function of analogy in the development of new knowledge. Nersessian (1999) for instance argued that examples of productive reasoning by analogy in science were showing to yield powerful and creative results. To counter Carnap, who argued that "reasoning by analogy can only yield weak results" as it was at best a form of inductive argument, Nersessian (1999) has argued that at the heart of analogy is the employment of generic abstraction *in the service of* model construction, manipulation, and evaluation. The added value of employing an analogy is its process of bringing ideas that are well understood in one domain to bear on a new one (Thagard, 1984; Holyoak & Thagard, 1996).

With regard to intra-value conflicts, science has to deal with the ancient old problem of presuming that the things and events in the universe occur in consistent patterns which can be made comprehensible through careful, systematic study. The problem with consistency here is the involvement of human nature in which scientific judgements made about for instance environmental sustainability have to jump from judgements of facts about ecology (the *is*) towards judgements of value regarding human integrity towards ecosystems (the *ought*). It is not that science is wrong, even on the level of this kind of human integrity, but these kinds of mathematical, statistical, and quantitative value judgements might leave no room for different kind of affects, feelings, emotions of other perspectives (e.g. fairness in distributive (ecological) justice). Especially when *genuine* affects, feelings, emotions of other perspectives – which might not necessarily be empirically justified – are not even taken serious and labelled irrational.

As such, scientists such as ecologists will typically abstract and equate into their knowledge concepts such as environmental sustainability *in the service of* their ecological model. As a result, value conceptualizations of environmental sustainability appear to highlight the aspect of reducing the kind of negative human impact that ought to lead to healthy ecosystems (environments) and is seen as necessary for the survival of humans and other organisms. The particular conceptualization of environmental sustainability here is the human-ecosystem

[38] An important source for the importance of analogies can be traced back to Mary Hesse's conception of models and analogies in theory construction and development. Hesse would argue that models and analogies are integral to understanding scientific practice advancement, in particular the way in which the domain of a scientific theory would be extended and how genuine novel predictions could be generated. In her approach, Hesse introduces the distinction between positive, negative, and neutral analogies between different domains. In a positive analogy, there would be properties that are common to both domains. In a negative analogy, there are properties that can only be ascribed to the model but not to the target domain. And in a neutral analogy, there are properties of the model about which the scientist does not know whether the properties are positive or negative analogies, and can be considered the most interesting properties set of properties. Neutral analogies hold significant properties because they might lead to new insights about the less familiar domain. Based on this idea, authors such as Magnani, Nersessian and Thagard (1999), have distinguished between two components of analogy; the target and its source. The target is the concept or problem that the scientist is attempting to solve or explain. The source is another piece of knowledge that the scientist uses to understand the target, or explain the target to others. The scientist then maps features of the source onto features of the target when making an analogy. By mapping features of the source onto the target (e.g. forward chaining), new features of the target may be discovered, the features of the target can be rearranged so that a new concept can be invented (e.g. modular sub- and re-assembly), or the scientist can highlight a specific feature of the target for other people. Similarly, Bartha (2010, p. 25) has argued for "The Articulation Model" in which he put forth two principles called 'the requirement of prior association'[38] the 'requirement of potential for generalization'. Complementary to the cognitive employment of an analogy is visual modelling. Visual modelling appears to be highly developed and effective from of human reasoning in a wide variety of circumstances (Nersessian, 1999). When applied to science, it presents itself as a powerful tool for science when sufficient constraints are incorporated into the reasoning process. Additionally, the thought-experimental process, by linking the conceptual and the experiential dimensions of human cognitive processing, demonstrates the undesirable real-world consequences of a representation, thereby compelling representational change. As such, model-based reasoning is composed of cycles of construction, simulation, evaluation and adaption of models that suffices for interim interpretations of the target problem to be solved. This process will frequently lead to modifications or extensions, and a new cycle of simulation and evaluation. However, Nersessian has also emphasizes that "creative model-based reasoning cannot be applied as a simple recipe, is not always productive of solutions, and even its most exemplary usages can lead to incorrect solutions" (Nersessian 2008, p. 11)

equilibrium or homeostasis. When faced with a different claim that something is true or of value, the scientist will typically respond by asking what kind of evidence is supporting it.

In this limitation in the scientific disposition due to the involvement of social factors, one might be persuaded to look at the social sciences for answers.

2.3.2 The Social Scientific Condition

In an attempt by several philosophers to put an end to debates about metaphysical realism, antirealism and idealism, logical positivism was introduced. The term positivism was coined by the French philosopher Auguste Comte who argued that societies pass through three stages – namely the theological, the metaphysical and the scientific. Logical positivism did not depend on the arbitrary choice of 'the naturalist',[39] but on pure and simple logic and mathematics, free from contextual (or non-epistemic) values.

This, however, became especially problematic when Comte used the term "science sociale" (or social physics) to describe the field of social science. In an attempt to establish sociology as a positivist social science, authors such as Émile Durkheim undertook the study of "social facts" trying to avoid prejudice and subjective judgement. For human-technology relations, such social facts might be of great importance since the current states of human-technology affairs and therewith the grand challenges could be causally determined by the antecedent social facts (e.g. individualism, excessive hope, too much freedom undermining social norms, the absence of community in atheism, and the weakening of the nation and the family). Durkheim committed to what is now known as methodological holism, defending the view that holistic explanations should be provided to account for social phenomena. Social facts were sui generis, according to Durkheim, and would have an independent existence greater and more objective than the actions of the individuals that would make up the constituent parts of society.

An early and tenacious critic of such positivist ideals was Karl Popper, who argued for the deductive fallacy of only affirming the consequent and the absence of bold conjectures.[40] Social facts of themselves – which Durkheim termed the collective or common consciousness –, however, can be seen as purely descriptive of the status quo; there is no positing bold conjectures in such sociology that can actually be falsified. The same could be said for other macro techniques for understanding social reality - such as critical theory in the 30's and structuralism in the '60s and '70s – which have been struggling with the great dilemma of moving on from understanding people's passive contemplation of the world, to *actually* taking part in it.

One answer to this problem of affirming the consequent within for instance sociology – or staying clear from the 'fallacy of misplaced concreteness' – came in the form of Weber's approach of grounding his sociology in the German hermeneutic tradition of interpretation of interpersonal social interactions (i.e. 'verstehen'). Weber would do this by way of making a sharp precise distinction between the logically comparative analysis of reality by ideal-types in the logical sense and the value-judgment of reality on the basis of ideals" (Weber M. , 2007 [1904], p. 215) This hermeneutic tradition of 'verstehen' differentiated between the study of nature and the study

[39] Logical positivists had the following basic commitments: 1) science is only intellectually respectable form of inquiry, 2) all truths are either: (a) analytic, a priori and necessary, in other words, tautological, or (b) synthetic, a posterior and contingent. So far as knowledge goes, it is either purely formal and analytic, such as mathematics and logic, or it's a kind of empirical science, 4) the purpose of philosophy is to explicate the structure or logic of science. Philosophy is really the epistemology of science and analysing concepts, 5) logic is to be used to express precisely the relationships between concepts, 6) a statement is literally meaningful if and only if it is either analytic or empirically verifiable (the verifiability criterion of meaning), and 7) the meaning of a non-tautological statement is its method of verification; that is, the way in which it can be shown to be true by experience (the verification principles) . (Ladyman, 2002).

[40] "I can therefore gladly admit that falsificationists like myself much prefer an attempt to solve an interesting problem by a bold conjecture, even (and especially) if it soon turns out to be false, to any recital of a sequence of irrelevant truisms, Popper argued (1969, p. 231). He would give priority to this, because he believed that falsification would be the way in which scientists could learn from their mistakes. In finding that a certain conjecture was false, scientists should learn much about the truth, having got nearer to the truth.

of society. Based on this differentiation, authors such as Giddens (2001) have suggested that, "while we can 'explain' natural occurrences in terms of the application of causal laws, human conduct is intrinsically meaningful, and has to be 'interpreted' or 'understood' in a way that has no counterpart in nature" (Weber M. , 2001 [1930], p. ix).

With regard to sustainability for instance, it might be easy to stress the biodiversity and ecological integrity of natural resources and thus implying the value of environmental quality in intra-value conflicts about sustainability, but well-being has to deal with the kind of human conduct that is intrinsically meaningful. Giddens has put forth the concept of the "double hermeneutic" in which everyday "lay" concepts and the concepts of the social sciences have a two-way relationship. As such, social scientists are prone to project their own ideal interpretation on how the social should be interpreted. Looking at the sociological analyses of Karl Marx and Max Weber, for instance, their work has be considered in this double hermeneutic. Marx wrote down his sociological analyses in works such as 'Capital: Critique of Political Economy' (1867) during a time when he lived in London, witnessing firsthand the wretched and unfortunate results of laissez-faire capitalism for the middle classes. Or, as his collegial author Engels described in 'The Condition of the Working Class in England' in 1844 [1892], people were living in crude shanties and shacks with dirty floors and no sanitary facilities (p.45). With many workers having to share rooms without furniture and sanitary, diseases like cholera were spreading through contaminated water supplies, or tuberculosis and lung diseases were the result of congested dwellings (Engels, 1892, P. 48-52). These concerns that would emphasize the disagreeable human condition took mainstream traction during the few decennia leading up to the first world war (Cannadine, 1984)[41]. Hence, it might come as no surprise that it was during this time that Weber first coined the term (colloquially known as) the 'Iron Cage' in his work 'The Protestant Ethic and the Spirit of Capitalism' (1905).[42]

Although Marx and Weber are often (somewhat wrongfully) accused of blatant determinism based on a number of inferences they have made, both authors have, however, provided some of the most precise and valuable micro-analyses. Among others are Marx's representation of the 'gattungswesen', or Weber's notion of subconscious frames – being constitutive of an 'ethic' or 'spirit - that invidiously and restrictively shape our everyday social, individual and even ecological experience.

What is a stake is that the essential elements in for instance sociological and psychological analyses are easily clouded by its larger social context. Although there is always going to be some kind of larger social context, it is always going to be a shifting – and above all provisional one –, for the reason that it is always in the process of construction by way of actors that pursue forms of value. What can be considered important is demarcating what kind of empirical observations for the actor are creating a positive or negative affect – and are thus producing the negative or positive value that is realized this way – from *larger* statistics based on societal critiques, ideologies, and dogma's.

In going through these perspectives, it seems that different value-interpretations can be made which are implying that simply no way of seeing the world can be taken as definitively true. Based on the analysis and interpretation of these perspectives, the next chapter will aim at providing a solution for dealing with intra-value conflicts.

[41] According to Cannadine (1984), the decennia leading up to the I920s, contemporary preoccupations with social surveys and poverty influenced the prevailing interpretation of the so called Industrial Revolution (P. 132).
[42] According to Weber, society "… is now bound to the technical and economic conditions of machine production which today determine the lives of all the individuals who are born into this mechanism, not only those directly concerned with economic acquisition, with irresistible force." (1905, 181)

CHAPTER 5: TACKLING 'GRAND CHALLENGES'

A solution to intra-value conflicts

Previously, I have argued that different perspectives exist that influence how particular values relating to technology are disclosed. This argument has served in particular to answer how can intra-value conflicts about technology be made comprehensible. Building on this argument, a suggestion is made on how such an understanding contribute to ethical decision-making.

Earlier, it was demonstrated that people may have a different conceptualization of a value in which they merit different attributes and other content-related aspects that are implied by the given value. Beneath the surface of this alleged (linguistic) consensus on content-related aspects – and thus a *perceived* consensual understanding –, ethical forms of conduct and application can still be found to differ. On a general note, the protracted conflict about what a value entails can be considered the direct result from a clash between differing perspectives. When different perspectives have different ideas about what a value denotes, it is often the result of stressing the importance of different aspects to which radically different or incompatible conduct can be initiated. The most fundamental and cherished assumptions and value-interpretations of one perspective may radically differ from another. Because these value-interpretations of different perspectives are firmly established and deep-seated through long conditioning of the affect, people might be unwilling to compromise or negotiate such an interpretation.

To extend the postphenomenological tradition, it has been argued that valuations arise through the circular interaction between affective affordances in the environment and the bodily resonance of the subjects. Thus, an individual's valuation must always be understood within the context of this particular interaction. These affective patterns shape the existential feelings within a perspective as well as the affective atmospheres that are perceived as being present. It is then important to recognize that it is often this affective valuation within such a perspectival reality that dictates the value-interpretation and appropriate codes of conduct. Committing to conceptualizations alone will lead to intra-value concepts, stressing the particular perspective from which it is viewed upon. Our comprehension might therefor be restricted to what our existence and the world have shown themselves to be, and how it might be involved in our experience. This might cloud our judgement of what other human beings find meaningful and desirable. Any moral statement can therefore be only called true only for the perspective of the mind from which it is viewing it: viewed absolutely, any statement of this sort falls short.

This unfolds itself in humanity when people with a similar perspective are affected by equivalent realities and mindsets. As a result, their values and the particular conduct hereof becomes part of their 'common sense.' However, when a plurality of perspectives does not share a similar sentiment and sensibility, to which the different presuppositions of proper conduct must interact, the probability of a clash is great. Each perspective may assert the view that there is no alternative apart from its specific conceptualization and conduct of a value, leaving other value-interpretations and codes of conduct as inferior, strange, or morally wrong. The particular intra-value conflict surfaces when the different disputants are affected by unknown atmospheres, according to what are perceived as the kind of alien feelings, emotions, and valuations that are attached to them. One of the primary reasons that people with different perspectives (in conflict situations) have problems with breaking the pattern of interaction between them, is that each perspective is caught up in its own emotional environment.

Considering the fact that different perspectives have radically different ways of valuating, it is probable that one perspective could deem a particular code of conduct as good and prudent, whereas another perspective could deem it as evil and foolish. One explanation is because the expression of a feeling or emotion from another perspective is perceived incongruent with the subject matter that is being discussed or witnessed. The other

perspective might thus not express the full range of expected emotions which 'makes sense' in a particular situation.

When a scientist shares his thoughts on the importance of ecological integrity, for instance, the conflict might not result from a rational agreement, but the way the other has been utterly unaffected by what the ecologist considers the overwhelming, bewildering richness and complexity of earth's ecology and the catastrophic disaster of the destruction hereof. This is typically paired with the ecologist noticing a lack of arousal and motivational intensity to not just rationally agree on the conceptual issue, but to actually create the proper impact. As such, it is not about a feeling of harmony or agreement, sympathy (Mitleid), consonance or accord, or even about compassion or commiseration in this sense. Rather, it is about understanding *why* – from our affectional and conational endowments – people have the visceral feelings and purposes that have caused a person to have a particular perspective in the first place. In this way, intra-value conflicts are often heavily affect-laden in a manner many other scientific and factual disputes are not. Although the ecologist could have his subject 'down to a science' in which he or she understands the subject extremely well, others might not be on the same *wavelength*, i.e. share the similar kind of feelings. What often happens is that the scientist will 'blind someone with science' in which other perspectives will be confused with such highly scientific concepts that it does not affect the person or group of people on the receiving end. Understanding how to get on the same wavelength with scientists, however, is key in tackling this conflict and conveying the scientific message.

In the engineering perspective, the importance of the state of flow has been emphasized to demonstrate how engineers can be fully immersed in a feeling of energized focus, full involvement, and enjoyment in the process of constructing, contriving and devising. Yet, this might be a limited picture. Although it might be nice for the engineer to fire on all cylinders in order to see that his well-oiled machine is up and running, this might be 'easier said than done'. More often than not, engineers realize that they need to work more effectively to catch up with deadlines in what is colloquially called the sputnik moment. Or, they might realize that they do not need to re-invent the wheel; wasting time in undertaking activities that have already been done in a much more effective way. With engineer's having their imaginative purpose in mind, trying to establish original and ground-breaking technology, the conflict might for instance not readily result from framing the risk about issues with regard to contested technology a lot lower than other perspectives based on their assessment of the risk. Rather, the conflict arises from a *misunderstanding* of other perspectives just *why* and how engineers work that hard. It is 'garbage in, garbage out' time after time, and definitely not rocket science. Understanding how to get in tune with engineers and not getting the wires crossed is essential in preventing technical bias, built-in consequences and technological fixes.

As for entrepreneurs, not only do other perspectives seem to misunderstand the name of the game, it seems they don't understand what it means to win. In the previous chapter I have described how entrepreneurs will typically be overly optimistic about the *gains* that can be obtained in the discovery of opportunities nature' and intuition of the entrepreneurial disposition. However, it can be this same passionate disposition – this winning feel as described earlier – that drives entrepreneurs heedlessly toward the kind of success that can sometimes 'consume' them. Resolving the conflict with entrepreneurs might not necessarily be done by addressing entrepreneurs in that they frame opportunities more positively than they actually are (e.g. the *opportunity* to 'realize cheap and relatively quick CO2 reduction,' the *opportunity* to improve the economy and the *opportunity* to increase the amount of jobs). Rather, it might be understanding that for them, in order to stay ahead of the game, many entrepreneurs sometimes have to go for broke. When faced with opposition, they either have to take the bull by the horns and go down swinging or fall through the cracks. Their livelihood depends on either holding their horses, jumping the gun, or dropping the ball.

As for governance, in the previous chapter, the argument was made that governance professionals can simplify the conflict through one particular conflict-resolution lens in which someone can become oblivious for

competing solutions. In doing so, they might fall into the populist pitfall, committing to fallacies ad populum and jumping the bandwagon, in which the agent appeals to the emotion or the common consensus of the crowd. What might lie under such a surface however, is other perspectives not grasping the ongoing effort to build shared meaning and common purposes that keep everything from falling apart. Committees are not just men who keep minutes and waste hours, they have to go through excessive red tape that turns action or decision-making into a real juggling act, all for the cause of having someone's best interests at heart and act on someone's behalf. It is no longer about divide and conquer, but creating a creating a level playing field, and this process is time consuming and other perspectives may not realize that this process might not necessarily reach an agreement on solution. It is give-and-take in building mutual trust, internal legitimacy and shared commitment in order to prevent people from shooting themselves in the foot, cutting off their noses to spite the face, or digging their own graves. Often it requires biting the cartridge or bullet in order to prevent other perspectives from getting up in arms. For the governance professional, the procedural and institutional arrangements in terms of process protocols and structures for interacting are often needed informally as well as formally (i.e. rules, bylaws) as a prerequisite for respecting the rights and interests of the stakeholders in a spirit of democracy.

This might all seem like a lot of colourful language, but these perspectives are themselves rooted in the kind of affects and their associated patterns of valuation that can be considered just as important for our practical and evaluative lives as for our cognitive life. Yet, such an angle is extremely scarce in literature. Hence, the use of some colourful language to express that the meaning of such language cannot be understood simply by knowing the meaning of the words as such. So how to deal with these conflicting perspectives and value-interpretations?

The answer lies in the organizing principle of the conflict. Fundamentally, what can be considered important with regard to these conflicting value-interpretations called intra-value conflicts is making fruitful the conflict to the extent that each perspective can heighten its understanding of the other's perspective without one of the perspectives becoming dominant. According to authors such as Aydin (2007), being engaged in a certain amount of struggle of interpretations could actually be seen as a sign of strength, as long as it is shaped into a well-structured and strong organisation. “A strong or healthy “will to power” organization is characterized by considerable divergence and struggle that is forced into a unity in a structured manner,” Aydin argues (2007, p. 39). A prerequisite of what can be considered strong cooperation is then the combination of a strong organization that does not go without intense struggle. One the one hand, a great organizational force is a sign of strength. On the other hand, a kind of discrepancy or instability, or chaos, is ought to be inherent in the strong type or cooperation. This kind of refinement of what is put forth as a strong or healthy does not imply some brutal, bodily force. Rather, more compatible with such notions of strong and healthy, can be seen as concepts such as “dynamic,” “growth,” and “richness.”

As such, on the one hand, a certain ground from being given an unconditional status should be prevented that might lead to e.g. technical bias, built-in consequences and technological fixes in the engineering perspective, sole focuses on gains in the entrepreneurial perspective rather than revolving around human relationship, or appeals to the emotion or the common consensus as the only justification in the governance perspective. On the other hand, other perspectives should be prevented from being completely destroyed, e.g. technology being labelled as this glooming, dooming, inescapable phenomenon, the root of all evil in entrepreneurship being perceived as greed, or the Marxist dissolution of the Welfare State that is by some deemed necessary. For Nietzsche, the problem of the opposing interpretations did not have to be abandoned, but rather embraced. He writes that (WP 616; KSA 12:2[108]) that the value of the world lies

> “in our interpretation (-that other interpretations merely human ones are perhaps somewhere possible-); that previous interpretations have been perspective valuations by virtue of which we can survive in life, i.e. in the will to power, for the growth of power, that every elevation of man brings with it the overcoming

> of narrower interpretations; that every strengthening and increase of power opens up new perspectives and means believing in new horizons – this idea permeates my writing."

In this sense, there *has* to be struggle for the sake of struggle, because people become what they are by virtue of interaction. Most importantly, as I have tried to demonstrate in the fourth chapter, this interaction should revolve not only around concepts and constructs, but in terms of moral values also by way of people's affects and drives. Nietzsche self has attempted to guard philosophers against the dangerous old conceptual fiction that would posit a "pure, will-less, painless, timeless knowing subject" - and the snares of such concepts such as "pure reason," "absolute spirituality," and "knowledge in itself." Such conceptualizations would demand that we should think of an eye that is completely unthinkable; an eye that would be turned in no particular direction, in which the active and interpreting forces, through which alone seeing would become seeing something, were supposed to be lacking. In his words:

> "There is *only* a perspective seeing, *only* a perspective "knowing"; and the *more* affects we allow to speak about one thing, the *more* eyes, different eyes; we can use to observe one thing, the more complete will our "concept" of this thing, our objectivity," be."

When there is no relatedness, violence kicks in as the ultimate destructive substitute which rushes in to fill the vacuum where there is no relatedness. This can be seen as true for every human being. When one person cannot affect or even genuinely move another person, violence flares up as the monstrous necessity for contact, a mad kind of drive forcing human touch in the most direct way possible. To throw in some Nietzschean clichés; where one despises, one cannot wage war. The good cause does not justify the war, it is the good war which justifies every cause. Yet is seems that we forgotten how to wage war and deal with intractable conflicts.

CONCRETE SOLUTIONS

One way to organize such a conflict of opposing interpretations is through what is called reframing. "The art of reframing is to maintain the conflict in all its richness but to help people look at it in a more open-minded and hopeful way" (Mayer, 2010, p. 139). In intra-value conflicts, framing typically refers to the way a conflict is described or made expressional, and in terms of this thesis refers to the cognitive-conceptual element of intra-value conflicts. Reframing is then the process of altering the way a thought is presented so that it maintains its fundamental meaning but is more likely to support resolution efforts.

Different perspectives can involve themselves or become occupied with reframing on their own, but in prevailing conflict management studies, it is often seen as helpful for a mediator or facilitator to guide the process. The specific task that is then laid down for the mediator or facilitator is to reformulate what each perspective have been stating in a manner that is seen as causing less resistance or hostility. Differently put, such a mediator or facilitator is present to assist opposing perspectives to communicate and redefine the way that they express their disagreement about the issue. The specific aim of the process towards which reframing is managed and supervised is to give rise to shared problem-definitions which are considered to be satisfactory to all perspectives involved, supposedly raising the potential for collaboration and consolidative solutions. This is typically done to achieve so-called win-win situations.

The process of reframing can occur quickly if parties are receptive to it, or it may take more time if they are not. This bears on whether the perspectives involved are willing to renounce their attachments of being right and give up being the star of their own movie. Such a renunciation often dramatically affects how someone interacts with others, how others are interpreted, as well as how someone interpret events.

For Nietzsche, renouncing the belief in one's own ego, to deny one's own "reality" would be the greatest triumph. This would then not merely not only include the senses, but appearance as well, which Nietzsche viewed as an even higher kind of triumph. More specifically, what was needed was a kind of violation and cruelty against one's own reason, which Nietzsche declared to be a voluptuous pleasure that would reach its height when the ascetic self-contempt and self-mockery of reason would declare: "there is a realm of truth and being, but reason is excluded from it!" (GM-III, 12). At least from the perspective from which it was viewed. Willing to see differently - the ability to control one's Pro and Con and to dispose of them - so that one knows how to employ a variety of perspectives and affective interpretations in the service of knowledge, Nietzsche thought was the solution. As such, we should procure a high esteem also for not knowing, for seeing things on a broad scale with a recognition of perspectivity. This would precisely be so for our mind, so "that it could be useful and important for its activity to interpret itself *falsely*" (WP 492; KSA 11:40[21]). The "psychology of the future" must be aware that "the great egoism of our dominant will" requires us "that we shut our eyes to ourselves" (WP 426 13:14[27/[28]), Nietzsche would argue.

However, in many cases, many people are not being able to do so or are not that familiar with the true nature of the conflict. What is then needed, is for the perspectives to enter into a process in which they come to understand the underlying causes of the conflict. These underlying causes pertain to how a certain perspective has been affected and what drives such a person or group of people, but has not been able to identify these affects and drives and bring them to the surface. In the fourth chapter, these affects and drives have been described for a number of perspectives.

While reframing does a proper job on the cognitive-conceptual level, reframing with regard to intra-value conflicts might be helpful, but not sufficient. In these intra-value conflicts, conficting perspectives need not only to identify a common language, but also need to examine their underlying affects and drives. As such, only when the perspectives start to understand the underlying causes of the intra-value conflict in terms of affects and drives, it becomes viable to begin working on genuine innovative solutions.

To answer to main question - how an understanding of intra-value conflicts can contribute to ethical decision-making –, the following suggestions can be made. 'Reframing' the intra-value conflict as a conflict of affects and drives can help to get the perspectives involved to focus on something that might collectively arouse and intensively motivate them for a cause, rather than focusing on their non-negotiable differences. This can be undertaken in either two ways. On the one hand, this can happen through voluntarily emphatic listening in which the interaction builds a firm integrity in the character of the other, enables the disputants to release their affects, weakens the tensions, encourages the surfacing of deep-seated drives, and creates a strong environment that is conducive to collaborative problem solving. This, however, all depends on the ability and willingness from other perspectives to listen with empathy. Not destroying the other perspective in this interaction typically happens through a mutual willingness to let the other parties dominate the discussion, being attentive to what is being uttered by other perspectives, a concern for not to interrupting the other perspective, practicing open-ended questions, the ability to let one be affected by the other perspective, and the subsequent reflexive ability of taking in the other's feelings and emotions that are being expressed (Burley-Allen, 1982). On the other hand, however, not everybody might be a voluntary emphatic listener, and this might involve getting some feelings hurt. However, it is *exactly* identifying the hurt and the purpose, not the rational or logical definition, *'in terms of'* the insights and understanding of the perspectives provided earlier, that such an approach is capable of solving even the most contracted intra-value conflicts. From life's school of war: what does not kill a value-interpretation makes it stronger.

In considering this thesis, there are a number of important shortcomings to address. First of all, there have been employed a limited number of perspectives. Although the perspectives in this thesis can be considered most important and central in opening up the conditions for technology to appear as meaningful, there are a number of perspectives worth mentioning, among others the artistic-aesthetic and socio-cultural perspectives that already have been mentioned in the beginning of chapter 4. Additionally, perspectives such as those pertaining to for instance the law, the media, as well as those relating to religious ones should not be considered irrelevant. One could argue, however, that there is a healthy balance of perspectives in order to get the point across.

Due to the limited scope of this thesis, which primarily has focused on its most important and fundamental tenets, a number of aspects could be explored in more detail. Due to the limited vocabulary available for the kind of subconscious drives and affects, an inquiry in the form of a content-analysis could be undertaken in order to broaden this shallow repertoire. Based on expanding this lexicon, a better division might be able to be made in terms of what perspectives commit to what kind of drives and affects. This could then be linked to the kind of value-interpretations that prevail within certain perspectives. Additionally, the thesis has focused on the strata of perspectivism and intra-value conflicts rather that the vertical integration of the elements. With the help of current psychological, psychoanalytic, and neuroscientific research, such connections are able to be made with the necessary time.

Nonetheless, this thesis can be seen as quite a novel and creative approach. Perspectivism itself is very rarely explored outside of traditional philosophical analysis itself, lacking the kind of empirical and practical insights that this thesis has aimed at. As such, the thesis can be considered to have contributed to the development of new knowledge and ideas to which the subject has enough potential to take ‘Tackling Grand Challenges’ to the new levels.

To follow-up this research, it is proposed to do a more extensive inquiry into subject areas such as affective and conative phenomenology which have been seen to surface in the last couple of years. Although this thesis has provided a number of preliminary answers, questions still remain around a number of topics. To start off, it is proposed to do a deep analytical inquiry into what the best way is to describe one’s affective and conative experiences? Based on such an outcome, other questions that can be posed are; to what extent can neuroscience and biology contribute to phenomenological accounts of the affect and conation in terms of the bodily dimension? And, somewhat more specifically, to what extent can affective intentionality be reduced to cognitive and/or conative experiences as vice versa? Building on such research could be the normative part, involving questions such as; what are the roles and functions of introspection and pre-reflective self-consciousness in the struggle to understand one’s affective and conative life? To what extent emotions are entangled into one’s so-called openness to the world? And, to what extent can the appraisal and valuation of the affect and the discipline of our conation within perspectivism be made into a full-blown ethical theory. Such phenomenological insights may contribute to our understanding of the nature of our affect, conation, and cognition, as well as contribute to solving contemporary debates about the nature of conflict.

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KSA	*Sämtliche Werke: Kritische Studienausgabe* (1980). Edited by G. Colli and M. Montinari. Berlin: W. de Gruyter.
BGE	*Beyond Good and Evil*, 1966 (1886). Walter Kaufmann (trans.). New York: Vintage.
GM / EH	On the Genealogy of Morals & Ecce Homo (1967), Walter Kaufmann (trans.). New York: Vintage.
GS	*The Gay Science*, (1974) Walter Kaufmann (trans.), New York: Vintage. / *The Gay Science*, (2001). J. Nauckhoff (trans.), Cambridge: Cambridge University Press.
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