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***Ordo et connexio rerum: Metaphysical
Cosmology, Orders of Ideas and the
Problem of Freedom in Spinoza's
Thought***

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List of Abbreviations

Abbreviations of Spinoza's Works

TIE = *Tractatus de intellectus emendatione*, in B. Spinoza, *Oeuvres I, Premiers écrits*, texte établi par F. Mignini. Paris: Puf, 2009, 19–155. English translation in C1.

KV = *Korte Verhandeling van God de Mensch en deszelvs welstand*, in B. Spinoza, *Oeuvres I, Premiers écrits*, texte établi par F. Mignini. Paris: Puf, 2009, 157–474. English translation in C1.

PPC/CM = *Principia Philosophiae Cartesianae and Cogitata Metaphysica*, in *Spinoza Opera, im Auftrag der Heidelberg Akademie der Wissenschaften*, hrsg. von C. Gebhardt, 4 vols. Heidelberg: Carl Winter, 1925. English translation in C1.

TTP = *Tractatus Theologico-Politicus/Traité Théologico-Politique*, texte établi par F. Akkerman, traduction et notes par J. Lagrée et P. F. Moreau. Paris: Puf, 1999. English translation in B. Spinoza, *Theological-Political Treatise*. English translation in C1.

E = *Ethica more geometrico demonstrata*, in *Spinoza Opera, im Auftrag der Heidelberg Akademie der Wissenschaften*, hrsg. von C. Gebhardt, 4 vol. Heidelberg: Carl Winter, 1925. English translation in C1.

TP = *Tractatus Politicus/Traité Politique*, texte établi par O. Proietti, traduction, introduction, notes, glossaires, index et bibliographies par C. Ramond, notice de P. F. Moreau sur la réception du TP, notes d'A. Matheron. Paris: Puf, 2005. English translation in C2.

Letter = *Epistolae*, in *Spinoza Opera, im Auftrag der Heidelberg Akademie der Wissenschaften*, hrsg. von C. Gebhardt, 4 vols. Heidelberg: Carl Winter, 1925. English translation in C1 and C2.

C1 = The Collected Works of Spinoza, vol. 1, translated and edited by Edwin Curley. Princeton and Oxford: Princeton University Press, 1985.

C2 = The Collected Works of Spinoza, vol. 2, translated and edited by Edwin Curley. Princeton and Oxford: Princeton University Press, 2016.

Internal Abbreviations

AD = definitions of affects (E3)

adn = annotation

app = appendix

ax = axiom

c = corollary

def = definition

dial = dialogue (KV)

dem = demonstration

l = lemma

p = proposition

post = postulate

pref = preface

s = Scholium

In references to Spinoza's works, the first roman number after the title abbreviation refers to the part or chapter of the work, and the subsequent number refers to paragraphs or sections within that chapter or part. For example, 'TTP, I, 1' refers to *Tractatus Theologicus Politicus*, chapter I, section 1. In the case of TIE and KV, numbers preceded by '§' indicate section numbers. For example, 'KVI, 2, §3' refers to *Korte Verhandeling*, part 1, chapter 2, section 3.

Abbreviations of Bacon's Works

IM = *Instauratio magna*

NO = *Novum organum*

Edition and English translation in *The Instauration magna Part II: Novum organum and Associated texts*, trans. and edit. by G. Rees and M. Wakely, Oxford: Oxford University Press, 2004. In citing Bacon's works: *Instauration magna* = IM, p.; *Novum organum* = NO, Book number, preface page or aphorism number. For instance: NO, I, 3.

Introduction

The Question

In my dissertation, I investigate Spinoza's notion of *order* in the (diachronic) development of his metaphysical, epistemological and ethical views, that is, from his early writings to the *Ethics*. The question of order is addressed from three interconnected perspectives: Spinoza's "metaphysical cosmology," his theory of mind and his account of free man. Tackling the issue of order from these three perspectives is necessary to clarify how Spinoza dealt with the problem of reconciling his necessitarianism, namely, his idea that all things necessarily follow from God's essence and cannot be produced in a different manner than that in which they are actually brought about, with the idea of human freedom (in its various guises in Spinoza's works). My ultimate goal is to show that Spinoza's mature account of freedom, according to which specific imaginative practices, habits and emotional states allow every individual to progress toward higher degrees of freedom, is deeply connected with his attempt to develop a mereological account of the universe. To prove this point, I do not only provide an internalist analysis of the development of Spinoza's notion of order in his works, but I also situate his views within the context of the scientific and theological debates of his days.

Much scholarly attention has been paid to several metaphysical and epistemological aspects of Spinoza's *Ethics*, while the *Theological-Political Treatise* and, more recently, the *Political Treatise*, have mostly been considered relevant to an understanding of Spinoza's critique of religion and to an analysis of his political thought. In Spinoza's scholarship, these ethical and political realms were long separated from each other in readings of Spinoza's *corpus*.¹

¹ Martin Saar has emphasized the difficulties in bridging the gap between Spinoza's ethical and political works (Saar 2013).

On the one hand, commentators have provided many valuable contributions that clarified specific metaphysical issues and theoretical problems of Spinoza's thought such as Spinoza's proof of the existence of God, his theory of attributes, or Spinoza's "intuitive science." Commentators have particularly insisted on these issues because a misinterpretation of these key points could threaten the overall consistency of Spinoza's philosophical system. Spinoza's political works have often been discussed *separately*, since the author's purposes in writing them were thought to be radically different from those behind the *Ethics*.² For instance, Spinoza's account of freedom in the *Ethics* has long been investigated without any relation to the question of the freedom of philosophizing in the *Theological-Political Treatise* and vice versa.³ In general, both analytical and historical readings have relied on a highly rationalistic view of Spinoza, in which the coherence of his system was the ultimate purpose of his philosophy.

However, a chronological approach to the investigation Spinoza's *corpus* became more prominent among Spinoza scholars, most of whom have abandoned the idea that his philosophy can only be appreciated on the ground of assuming full conceptual consistency. Even though Filippo Mignini has already focused on a chronological analysis of Spinoza's *corpus* in the 1980s,⁴ this research trend has gained traction only in the last twenty years. In his biography of Spinoza, Steven Nadler (1999) has undertaken a chronological analysis of Spinoza's works (in addition to more biographical aspects) and, at the same time, he has stressed the importance of an investigation of the social and political contexts of seventeenth-century Europe in order to understand Spinoza's intellectual development. After the publication of Nadler's book, many

² See, e.g., Smith 1997 and Den Uyl 2003.

³ An analysis of the cultural and political framework in which Spinoza develops his idea of freedom of philosophizing is provided by Laerke (2021).

⁴ Mignini has worked on the development of Spinoza's account imagination throughout his works (see Mignini 1981). The main contribution of Mignini's research concerns his reconstruction of the chronology of Spinoza's works (See Mignini 1983, 1984-85 and 1988).

contributions have addressed specific issues of Spinoza's philosophical development. Building on Mignini's work, Giuseppina Saccaro del Buffa (2004) has argued for the existence of a metaphysical shift from the early hierarchical ontological structure presented in Spinoza's *Short Treatise* to the well-known pantheistic identification of God and Nature in the *Ethics*. Chantal Jaquet (2004) has highlighted that Spinoza's theory of affects as presented in the third part of the *Ethics* differs in relevant respects from the early theory presented in the *Short Treatise*, which was, in turn, rather inspired by Descartes' *Passions of the Soul*. Maria Emanuela Scribano (2012) has provided a detailed historical reconstruction of the development of Spinoza's notion of *conatus*. Furthermore, Andrea Sangiacomo (2013) has focused on Spinoza's account of mereology, and on the evolution of problem of defining the essence of body from the *Short Treatise* to the *Ethics*. Sangiacomo (2019) has adopted an analogous perspective in his study of Spinoza's ethical views.⁵ A brief overview of these studies should be enough to bring to light the great number of themes discussed by the scholars who engaged in a chronological reading of Spinoza's *corpus*. Attempts to understand the development of Spinoza's thought have become important not only within the so-to-say Continental framework, but have also motivated Anglo-American studies.⁶

Concerning Spinoza's theory of order more specifically, several studies have addressed it from different perspectives which were not mutually exclusive but were useful to stress the complexity of this topic.⁷ In proposition 7 of the second part of the *Ethics*, Spinoza

⁵ Sangiacomo (2019) has argued that Spinoza's moral philosophy evolved from the ethical intellectualism of the early writings to a mature ethical view, in which forms of social appropriation became fundamental to achieve the Supreme Good.

⁶ A limited but a relevant chronological interpretation concerns the development of Spinoza's intuitive science from the version of the *Treatise on the Emendation* to the *Ethics* (see Carr 1978). A broader chronological reading is embraced in the recent volume edited by Yitzhak Melamed (2015) *The Young Spinoza. A Metaphysician in the Making*.

⁷ Scholars have largely investigated Spinoza's order of nature by linking it with his metaphysical necessitarianism (see Garrett 2018, Newlands 2018). However, this topic has also been addressed from a physical perspective (see

affirmed that “the order and connection of ideas is the same as the order and connection of things”.⁸ This thesis is well-known as the “theory of parallelism,” even though this expression is often considered to be somewhat misleading, and, in any case, interpreters would rather speak of “correspondence” or even of “equality of the attributes”.⁹ As a matter of fact, the thesis of the equality of extension and thought has received much attention not only in scholarship on Spinoza, but also in more contemporary literature on neurophysiology and science.¹⁰ Even though this thesis is usually considered Spinoza’s solution to the Cartesian dualism it is, above all, another version of Spinoza’s core thesis that God’s power of thinking corresponds to Its production of many different things. The notion of “equality of the attributes” also presents many problems in relation to Spinoza’s claim to the effect that the mind is eternal beyond the existence of the body, as it is presented in the fifth part of the *Ethics*, where the problem of human freedom is at stake.

The title of my dissertation intentionally accentuates the order of things [*res*] and omits a reference to the order of ideas which was contained in Spinoza’s original passage. This choice needs a proper justification, since the perspective I adopt might appear unusual seen against the background of contemporary Spinoza studies and, therefore, possibly problematic. I do not ascribe to Spinoza’s attribute of extension an explanatory and ontological priority in comparison to the attribute of thought, as it is implied by many materialist readings of Spinoza. Rather, the focus on extension provides two advantages for clarifying Spinoza’s notion of order, and to assess his interest in

Parrochia 1985). Since its immediate reception, Spinoza’s philosophy has been accused of denying any freedom to human beings and of submitting all human actions to some sort of ‘fatal necessity’ as Letter 74 written by Oldenburg shows.

⁸ In Latin : “*ordo et connexio idearum idem est, ac ordo, et connexio rerum*”.

⁹ See Chantal Jaquet’s explanation of Spinoza’s thesis in *The Bloomsbury Companion to Spinoza* (Van Bunge, Krop, Steenbakkers and van den Ven 2011, 278). Throughout the dissertation, I will discuss the problem of “parallelism” at length.

¹⁰ There are many recent studies which praised Spinoza’s idea of the body-mind union as a precursor of contemporary physiological theories. The most relevant one is Antonio Damasio’s *Looking for Spinoza. Joy, Sorrow, and the Feeling Brain* (2003).

and contribution to several scientific debates.¹¹ First of all, by focusing on the attribute of extension, it is possible to develop an interpretation that highlights the importance of the relationship between God and the world. Furthermore, I intend to stress that Spinoza's philosophy cannot be reduced to mere conceptual issues and problems as an extremely rationalistic reading, inspired by the idealist tradition, indirectly implies.¹² Instead, focusing on the attribute of extension helps reveal aspects of Spinoza's works which are easily overlooked by these rationalist interpretations, and will enable us to rethink Spinoza's approach to scientific issues. I aim to highlight how Spinoza tackled the issues of the order of nature and of natural laws, including the physiological problem of the constitution of the human body as well as a moral order of universe. These issues were addressed from many different points of view in the early modern age and the field of knowledge to which they belonged – metaphysical, physical, theological, or ethical – was not yet clearly defined. By investigating whether and how Spinoza dealt with such problems in his works will make it possible to clarify his own approach and original contributions to the scientific and cultural debates of his time.

The emphasis on extension is relevant also because it sets precise boundaries to my investigation of Spinoza's works. The term *order* occurs many times and with many different meanings in Spinoza's works (Giancotti 1970, 789-92). Even if the reference to the "order and connection of things" narrows down the conceptual framework,

¹¹ A general assessment of Spinoza's natural sciences and methodology has been provided by Alan Gabbey (1995) and Luisa Simonutti (2007). Several pages have been devoted to Spinoza's interest in physics (see a few examples Messeri 1984, Parrochia 1988, Peterman 2014, D'amico 2018), but less attention has been paid to Spinoza's other scientific interests.

¹² A relevant role has been played by Michael Della Rocca's main contribution to Spinoza's scholarship which consisted in the acknowledgment of the importance of the principle of sufficient reason in Spinoza's metaphysics. Della Rocca's works (2008 and 2012) have clearly fostered an extreme rationalist reading of Spinoza's works as one might see from the predominant focus of Anglo-American scholarship on metaphysical issues, such as the nature of attributes, or logical consistence. I do not intend to undermine or belittle the importance of the results of Della Rocca's reading of Spinoza. Rather, I embrace a different approach which adds different elements and helps rethink the content of Spinoza's works.

still, there are many ways to address the topic of order. This explains the second part of my title, which refers to “metaphysical cosmology,” orders – in the plural – of ideas, and to the problem of freedom.

By “metaphysical cosmology,” I mean a comprehensive view of the physical universe based on specific metaphysical premises. In this sense, the mereology of the universe as well as the connections and causal interactions among natural things, are within its reach. “Metaphysical cosmology” differs from “empirical cosmology” insofar as the latter is concerned with natural phenomena and observations. In Spinoza’s philosophy, metaphysical cosmology involves the understanding of the infinite universe in terms of whole-parts relationships as well as the clarification of universal laws and of the order of Nature informed by his account of substance monism. I will argue against a mere conceptual reading of parts and particular things in Spinoza’s works,¹³ stressing that Spinoza took to the universe to be an infinite modal whole. The universe is not infinite by virtue of its own nature, as Spinoza’s definition of substance implies, but by virtue of its cause. Therefore, it is a mode which follows from Its nature and should be distinguish from the concept of God even though it presents a similar conceptual and ontological priority in relation to particular things.

My contribution to recent debates on Spinoza’s mereology is twofold: 1) I will support an ontological reading of Spinoza’s mereology informed by the development over time of his account of the universe; 2) I will stress the key role of Spinoza’s notion of ‘agreement’ for his “cosmological turn”, i.e. his definition of the universe as an infinite modal whole. This will enable me to address Spinoza’s mereology from the perspective of existing things and to clarify how particular things can exist and produce effects in a certain way without undermining the unity of the whole and the necessity of nature. This reconstruction will, therefore, contribute to highlighting

¹³ In different ways, I think that a conceptual or idealist reading of Spinoza’s notion of parts is implied in Melamed (2009), Peterman (2015) and Matyasi (2020).

the relevance of the notion of “agreement” from a cosmological point of view.

By ‘different orders of ideas’, I understand Spinoza’s distinction between knowledge of the order of Nature provided by the intellect and knowledge of the common order of Nature provided by the imagination. Here, I will focus on the apparent gap between Spinoza’s notions of the imagination and reason. My aim is to rethink the relationship between these notions and between inadequate and adequate ideas. This lead me to revise some interpretations of Spinoza’s account of mind by showing that the imagination-reason gap is sometimes less sharp than it appears *prima facie*. The possibility of a connection between two different orders is due to the fact that the order provided by the imagination is not *per se* false, but is established by a necessary (although incomplete) connection of causes. There are some passages in which Spinoza offers examples of a virtuous use of imagination. What I call a “virtuous use of imagination” involves the idea that virtue is one and the same with the power of a thing, and the fact that human beings can increase their power by means of reason. Consequently, using our imagination can be considered virtuous as long as it increases our powers by supporting reason. Instead of arguing that the imagination might play only a limited practical role to foster human cooperation, or, instead of stressing the unbridgeable gap between the imagination and reason, I aim to show the extent to which Spinoza’s account of the imagination and of reason are interconnected working together towards an adequate understanding of things.

Third, I address the problem of Spinoza’s account of freedom from the specific point of view offered by Spinoza’s figure of the “free man.” In my reading, the free man is a *rational* model of human nature with all specific features that human beings, as parts of the whole Nature, have in common with each other. The rational model provided by the free man plays a twofold role: 1) it has a pivotal pedagogical and practical function as a visible – and not merely ideal – model to which human beings might look and whose behavior they

can imitate with the aid of imagination; 2) the habits and daily praxis provided by this model rest on common notions (which are adequate ideas) and allow human beings to know what is really useful to all individuals. This last claim enables us to clarify the positive relationship between the imagination and reason, daily praxis and adequate knowledge in Spinoza's mature account of freedom, and in light of his notion of "agreement."

The common denominator of my inquiry is Spinoza's claims that every part of Nature belongs to one and the same order and, at the same time, that a variety of effects can be produced by particular things within the whole infinite universe. However, this conception of Nature is not yet present in Spinoza's early writings, but is only a consequence of Spinoza's metaphysical cosmology as it is formulated in the mature works. According to this mature view, each part of Nature is ontologically grounded and can produce particular effects through its dynamic connection with the other parts. In the *Ethics*, this reading is possible because of the notion of "agreement," which implies that the causal interaction among things is possible and more successful when they have features in common. Spinoza's account of the universe implies the existence of various degrees of causal power within the whole infinite universe, which turns out to be fundamental also for the relationship between the imagination and reason as well as for the establishment of human freedom.

In a nutshell, the notion of order, which is often discussed in relation to issue concerning the attribute of extension, offers the red thread for an investigation of the relationship among Spinoza's account of cosmology, theory of mind and activity established through the notion of agreement. I consider that a chronological reading of Spinoza's *corpus* is highly fruitful as it provides a twofold advantage: first, it enables us to highlight that Spinoza dealt with similar problems from different conceptual frameworks throughout his intellectual development; second, a chronological reading makes it possible to critically assess the influence of neglected sources and

of scientific, theological and cultural contexts, on the evolution of Spinoza's philosophy.

Methodology

The issues that I tackle in my dissertation and the chronological approach that I adopt need further clarifications in methodological terms. As I argued, the adoption of a chronological approach has two main advantages. This includes hitherto the investigation of neglected sources, such as Francis Bacon's *Novum Organum* and Descartes's *Treatise on Man*, both of which played a key role in the formation of a scientific culture in the Dutch Republic. The choice of Bacon and Descartes's *Treatise on Man*¹⁴ is not motivated by a conviction that they are more important compared to other texts – such as Thomas Hobbes' or Robert Boyle's works – or to other cultural influences – such as the Jewish tradition. Rather, my choice is rooted in intention to contribute to the extant literature on Spinoza's sources, by focusing on sources that have been less investigated or fully neglected up to now but are important to explain the development of his thought and the addition of certain philosophical arguments. The common view of Bacon as an empiricist and of Spinoza as a rationalist has contributed to the scholarly disinterest in Bacon's influence on Spinoza. Since only a few interpreters have inquired into this topic,¹⁵ I aim to contribute to closing this gap in Spinoza scholarship by focusing more systematically on the influence of Bacon on Spinoza's theory of errors and his account of history.

For what concerns the influence of Descartes's *Treatise on Man* and the connected physiological debates on the elaboration of

¹⁴ While there are a lot of contributes about the influence of Descartes' metaphysics, theory of knowledge and affects on Spinoza philosophy, there are only a few scholars who have focused on the physiological aspects.

¹⁵ Filippo Mignini (1983) stressed the influence of Bacon on Spinoza's *Treatise on the Emendation of the Intellect* and Messeri (1990) suggested that Spinoza's idea of order of Nature might be indebted to Bacon's schematism. However, both authors did not provide a careful analysis of this influence. The amount of studies on the relationship between Spinoza and Bacon had recently increased (see Pousseur 2000, Selcer 2013, Van Cauter 2016, Van Cauter and Schneider 2021).

Spinoza's thought, recent studies have pointed out Spinoza's interest in medicine and the influence of the Descartes' physiology on the *Ethics*.¹⁶ However, an analysis of how these debates have contributed to shaping Spinoza's theory of mind is still (by and large) missing.

In the dissertation, I follow Mignini's chronology of Spinoza's works. The *Treatise on the Emendation of the Intellect* was probably composed around 1657 and before the *Short Treatise* (1660-61) – even though Spinoza possibly made some additions in the meantime. Spinoza worked on his *Principles of Cartesian Philosophy* from the 1662 until the publication of the text in 1663. It is more difficult to clarify which parts of the *Ethics* were contained in the early draft on which Spinoza worked from 1662 to 1663 and how these three parts correspond to the parts of his final work. The *Ethics* was published only in the 1677 in the *Opera Posthuma* but the manuscript was circulating among Spinoza's friends already in 1675. In contrast, Spinoza's correspondence enables to shed light on the dates of composition of the *Theological-Political Treatise*, i.e., between 1665 and 1670. Finally, the *Political Treatise* was composed between 1676 and 1677.¹⁷

A final remark about the role of Spinoza's letters is necessary to understand my analysis of the development of Spinoza's thought. The main problem, here, concerns the fact that Spinoza's friends selected some of the letters, while excluding others, in order to protect the identity of some Spinoza's correspondents and it is difficult to establish in how far this has affected the completeness of the *Correspondence*. Furthermore, there are other problems which arise from plain discrepancies between the available versions of the letters

¹⁶ Scribano (2015) has suggested that the posthumous publication of Descartes' *Treatise on Man* in 1662 inspired Spinoza's late way of conceiving the mechanism of the imagination, while Raphaële Andrault (2019) has contributed to overcome the prejudices around Spinoza's lack of interest in the medical and physiological debates of his time.

¹⁷ The *Treatise on the Emendation of the Intellect*, the *Short Treatise* and the *Political Treatise* are unfinished – in the last case because of Spinoza's death.

in Dutch and their manuscript forms.¹⁸ Notwithstanding these difficulties, I assign to the *Correspondence* a crucial role in my research and I consider it an original and key source of information within Spinoza's *corpus*.¹⁹ As a matter of fact, a careful analysis of the letters is fundamental in order to understand certain problems and in order to reconstruct the conceptual framework within which Spinoza developed his philosophy.

Structure and Summary of the Thesis

My dissertation is divided into three parts, which correspond to the three topics described above: (1) Spinoza's metaphysical cosmology, (2) the relationship between imagination and reason in his theory of mind and (3) the account of the free man provided in the fourth part of the *Ethics*. These three parts are developed as three self-standing and autonomous investigations. Each topic needs a precise and independent contextualization and an analysis of different passages chosen from Spinoza's works. The structure of my dissertation makes it possible to preserve the logic of Spinoza's arguments, while at the same time addressing many contextual problems and debates which are relevant to understand Spinoza's account of order and its metaphysical, epistemological and ethical implications.

Although the three parts of the dissertation are independent from each other, they do address interconnected problems concerning Spinoza's worldview and notion of agreement, and share a common ground in Spinoza's *corpus*: Letter 32 to Henry Oldenburg and of the so-called *Physical Interludes*²⁰ contained in the second part of the *Ethics*.

¹⁸ Pierre-François Moreau (2004) focused on the issue concerning the reading of Spinoza's *Correspondence*. For an overview of the problems concerning the existing editions of the *Correspondence* see Licata (2020).

¹⁹ For this reason, I refer to the whole collection of Spinoza's letters as the *Correspondence* as if it would be a proper work.

²⁰ I always refer to the *Physical Interludes* in italics, even though they are a part of the *Ethics*, in order to follow the common way of referencing in Spinoza scholarship.

In the first two parts, I follow the same approach in the exposition of the main argument while the third part is organized in a different fashion, since it plays a twofold role. On the one hand, it provides an original interpretation of Spinoza's account of the free man, on the other hand, it is the conclusive statement of my dissertation, where the interconnection of all three parts is shown in Spinoza's thinking about practical philosophy.

In the first chapter, I show the theological implications of Spinoza's account of extension as an attribute of God and clarify his metaphysical approach to physics. In addition, I present Spinoza's early conception of immanent causation and of natural laws, in order to shed light on the continuities and discontinuities of the kind of metaphysical cosmology that he provided in the *Ethics*.

In the second chapter, I begin the chronological investigation of Spinoza's *corpus* by focusing on the development of his account of the universe from the *Short Treatise* to Letter 32 to Oldenburg. This chapter plays a double role: (1) to reveal a major conceptual and terminological development in Spinoza's philosophy. More specifically, the notions of whole and parts, which were ambiguously defined in the *Short Treatise* as "beings of reason," are given a proper ontological foundation between 1661 and 1665. (2) To show that this conceptual turn led Spinoza to develop a mereological account of the universe based on the notion of "agreement" in Letter 32. This notion is fundamental to clarify the possibility of a coexistence of the universal natural order and particular natural laws.

In the third chapter of the first part, I briefly explain Spinoza's account of law in the *Theological-Political Treatise*, as I wish to clarify the continuities and discontinuities with regard to his earlier texts. After having analyzed a few passages from the *Theological-Political Treatise*, I focus on Spinoza's rejection of the arguments against divine extension presented in the *scholium* to EIp15. This analysis sheds light on continuities and discontinuities regarding Spinoza's argument for attributing extension to God from his early writings to the mature works and, more specifically, to substantiate

how Spinoza deviated from Descartes' conception of matter. The *scholium* to E1p15 also laid the foundation for Spinoza's cosmological view as it is presented in the so-called *Physical Interludes* of the second part of the *Ethics*. Since the *Physical Interludes* consist in a mechanical explanation of the general laws of motion and collision—as well as of the common features of all bodies—they are vital in order to understand Spinoza's metaphysical cosmology. Before tackling this complex issue, I address problems raised by Spinoza's theory of infinite modes, since Spinoza referred to the mereological description of Nature (as it is presented in the *Physical Interludes*) in the terms of "*facies totius universi*" in a letter written to Georg Hermann Schuller in 1665. This will bring to light the problem of the relationship between modes of thought and modes of extension. To conclude this chapter, I show, against a pure conceptual reading of parts and individuals, that Spinoza saw the universe as an infinite modal whole in which particular things exist and produce effects in a certain way without undermining the unity of the whole and the necessity of nature.

The fourth chapter opens up the second part of my dissertation by offering an overview of the metaphysical, theological, and physiological debates concerning the perfection and nature of the human mind. I begin with Spinoza's criticism of Descartes and Bacon as presented in Letter 2 (written to Oldenburg in 1661) which sheds light on the different reasons behind Spinoza's criticism of Bacon's theory of idols. Since Spinoza's criticism concerned mainly Bacon's premise regarding the corruption of the human mind after the Fall from Eden, I briefly present the theological and epistemological implications underpinning a conception of human nature as corrupted after the Fall. Next, I offer an overview of a few aspects of Bacon's philosophy and its reception in the Dutch Republic, in order to lay the foundation for a critical assessment of its role in the development of Spinoza's thought. Finally, I focus on the physiological debates which arose after the posthumous publication of Descartes's *Treatise on Man* in the Netherlands, to show Spinoza's familiarity with these

debates and his interest in medicine despite the apparent absence of an interest in physiology in his works.

In the fifth chapter, I analyze Spinoza's theory of mind and knowledge in his early writings. In the *Treatise on the Emendation of the Intellect* Spinoza referred to the human mind using different terms, such as "*intellectus*" and sometimes "*animus*," and four kinds of perception instead of three kinds of knowledge. Furthermore, in the *Treatise on the Emendation of the Intellect* and in the *Short Treatise* there are some passages in which the interaction between mind and body is conceived as possible. Then, I focus on the *Short Treatise* where Spinoza provided only a somewhat vague reassessment of the mind-body relationship in terms of (mere) correspondence. In these early writings, he assumes a kind of a self-sufficiency of the human mind, an idea that had important epistemological and ethical implications. Finally, I conclude this chapter by analyzing Spinoza's explanation of fictitious ideas in the TIE in order to show that there is a kind of dialectic relationship between the ideas provided by the imagination and those produced by the intellect. This shows Spinoza's struggle with the explanation of ideas which were usually conceived in relation to free acts of the will.

In the sixth chapter, I study the development of Spinoza's account of the imagination from 1662 to the publication of the *Theological-Political Treatise* in 1670. After the publication of Descartes' *Treatise on Man* in 1662, Spinoza paid a great deal of attention to bodily affections to understand the causes of human superstitions and of imaginative ideas. Indeed, he explained the mechanism underlying human imagination in terms of affections of the body in both the *Theological-Political Treatise* and the *Correspondence*. Consequently, I aim to show that, even though Spinoza clearly distinguished imagination and reason with respect to their role in achieving adequate knowledge, there are some passages – such as Letter 17 (1664), Letter 32 (1665) and also the reference to Bacon's *historiola mentis* in Letter 37 (written to Johannes Bouwmeester in 1666) – where Spinoza ascribed to experience and

imagination a seemingly positive and practical function, i.e., that of grounding human knowledge. In particular, I argue that Spinoza's reference to Bacon can be better understood by taking into account the scientific context of seventeenth-century Netherlands and by focusing on certain aspects of Bacon's thought, such as the theory of idols and historical method. As a matter of fact, Spinoza developed a method to interpret Scripture based on the assumption that the true meaning and universal teaching of the Bible could only emerge from a historical understanding of the text. Furthermore, Spinoza's explanation of prophetic knowledge in the first two chapters of the TTP shows, on the one hand, the physiological and environmental aspects which characterize the vivid imagination of the prophets, on the other hand, a connection between imaginative and true knowledge within a practical and ethical realm. Finally, a similar positive connection between imagination and reason turns out to be fundamental for his political project (that is, laying the foundation of a republican state) as well as in relation to Spinoza's ideas of democracy as the most natural form of government [*imperium*].

In the seventh chapter, I conclude the second part of my dissertation with an investigation into Spinoza's theory of mind and his theory of knowledge in the *Ethics*. First, I will address Spinoza's mature doctrine of body-mind identity. I will situate my reading in the debate about the true meaning of this thesis by arguing that the definition of the mind as a mode of God does suffice to explain its cognitive power. Indeed, there are two interconnected perspectives which are required to understand Spinoza's mature theory of mind and knowledge: (1) the general ontological and metaphysical roots of the first part of the *Ethics* are applied to clarify the specific ontological status of the human mind and its nature; (2) the explanation of the constitution and cognitive power of the mind, which rests on the *Physical Interludes*, is based on a detailed account of Spinoza's account whole-parts relationships. Secondly, I follow Scribano (2015) in making a brief comparison with Descartes' *Treatise on Man* in order to show to which extent Spinoza's

explanation of the mechanism of imagination might be understood in the context of early modern debates about physiology. Furthermore, I will discuss in detail Spinoza's mature account of the imagination as a power of the mind and its relationship to the cause of errors. Since the imagination is not intrinsically fallacious, and inadequate ideas consist only in a lack of completeness, adequate ideas do not provide a different representation of reality but only a complete understanding of the underlying causes. Finally, I focus on the relationship between imagination and reason in order to show the continuity between these two kinds of knowledge. I will argue that the systematic use of the notions of whole and parts turns out to be fundamental for Spinoza's explanation of cognitive processes and, in particular, for his distinction between imagination and reason as well as that between the common order of Nature [*communis naturae ordo*] and that of true correlations among things. These distinctions can be understood by taking into account Spinoza's novel account of common notions in the *Ethics* which is deeply connected with his notion of agreement and his new account of whole-part relationship. Indeed, reason is not simply the knowledge of the most universal laws of nature, but it comes in stages and concerns both the laws of human nature and the universal laws of motion. This way of looking at things has a twofold advantage: on the one hand, it stresses a relevant discontinuity between Spinoza's early and mature account of reason by focusing on its connection with the notion of agreement. On the other hand, it shows that Spinoza's cognitive therapy to overcome errors ranges over affections, experiences and social cooperation in the *Ethics*, too.

The third part of this dissertation concludes my investigation. It unveils the interconnection between metaphysical, scientific, epistemological, and ethical aspects of Spinoza's notion of order. In the eight, and final, chapter, I address the problem of the "free man" and engage with the main interpretations provided by Spinoza

scholars on this issue.²¹ First, I lay down the foundation of my own interpretation of EIV by suggesting that Spinoza sought to provide a model of human nature based on common notions, and not – as in the case of imaginative models – based on universal ideas or on abstraction from particular things. This is important so as to make clear that Spinoza’s model of human nature does not only play a marginal role in his practical philosophy. Secondly, I analyze, Spinoza’s argumentative strategy in Letter 32 to highlight a virtuous use of the imagination that might lead to an adequate understanding of the human condition – as a part of Nature – based on his account of freedom. In this letter Spinoza sketched his account of agreement and disagreement that is fundamental to clarify his conception of human nature and the function of the free man in EIV. Finally, I turn to the actual investigation of EIV. I show that counterfactual statements employed during the presentation of the concept of the free man should not be understood as entailing the impossibility of his existence. Rather, they imply a virtuous use of the imagination so as to provide an adequate understanding of common human features. EIVp18s clarified the role and function of the free man, and why he could be considered as a rational model of human nature. Here, Spinoza took for granted the existence of a common human nature and, since the dictates of reason oblige one always to act according to one’s own nature, the free man always acts for the interest of all individuals as far as he can.

²¹ From an ethical standpoint, the free man seems to have only adequate ideas and no passions (See Kisner 2011, Chapter 8). No individual could achieve this kind of perfection because all human beings necessarily have inadequate ideas and are passive to some extent (EIVp4c). Hence, the free man would be an idealized, imaginative and unattainable model of human nature (Garrett 1990). Nevertheless, this contradicts Spinoza’s ethical and political realism which does not aim to conceive human beings as we “would like them to be,” “to laugh at human actions, or mourn them, or curse them, but only to understand them” as they really are according to their nature (TP 1,1). Having adequate ideas is the only way for human beings to become active and free. The perfection of the free man and his kind of freedom does not seem to be based on an understanding of human nature and human freedom. Consequently, individuals would struggle in vain to achieve an unrealizable perfection and form a wrong conception of human freedom which cannot improve their power of acting and the understanding of human nature.

Part I

Order and Mereology in Spinoza's Metaphysical Cosmology

Introduction

In the first part of my dissertation, I will deal with the question of the existence of a cosmological problem in Spinoza's works. My overall goal is neither to investigate Spinoza's reception of cosmological sources,²² nor directly address his ontological argument.²³ Rather, I aim to show the development of Spinoza's conception of the universe throughout his works, and its relationship with the idea of a fixed and eternal order of nature. I will argue that Spinoza saw the universe as an infinite modal whole which differs from the unique infinite substance, insofar as it is a mode of God, even though infinite and eternal. This means that the universe is not infinite by virtue of its own nature, as Spinoza's definition of substance implies, but by

²² This question might be understood in different ways. On the one hand, one who is familiar with early modern cosmological debates could expect an investigation of Spinoza's reception of Copernicus's system, or of his interpretation of astronomical phenomena such as the appearance of the comet in 1664. Emilia Giancotti stresses the importance of Copernicus' astronomy and Bruno's metaphysical thought for Spinoza's conception of human beings as a part of Nature (Giancotti 1996, 121). Nevertheless, it is hard to find explicit and relevant references to astronomical issues or debates in Spinoza's works. A clear reference to astronomical debates can only be found in the TTP in which Spinoza explains how one should interpret the Scriptures. In particular, he discusses Joshua's perception of God's stopping the sun in Chapter II of the TTP. On the continuity and difference of Spinoza's exegesis and Galileo's one, see Redondi (2013). Spinoza also discussed cosmological issues in the third part of in his *Principles of Cartesian Philosophy*, and was interrogated by Oldenburg about the Cartesian hypotheses while discussing the observations of some comets in 1665. However, the former shows only that Spinoza was familiar with Descartes cosmology in the *Principles* – Descartes *Le Monde* was not present in Spinoza's library and was only published in 1663. As of the discussion with Oldenburg, Spinoza answered his questions with a lapidary sentence: "I do not yet hear that any Cartesian explains the phenomena of the recent comets on the Cartesian hypothesis, and I doubt that they can be rightly explained on that Hypothesis" (Letter 30).

²³ who assumes a theoretical or historical-philosophical perspective might think that I took the cue from Hegel's criticism of Spinoza's ontological proof of God's existence. Scholars have shown much interest in Hegel's criticism of Spinoza's "acosmism," i.e., the idea that only God exists, and all things vanish in God. This question might be understood in different ways. Hegel defined Spinoza's account of God an acosmism. Since God is the only really existing entity, Hegel claims that in Spinoza's philosophy there is no place for any kind of pluralism of things or individual freedom. Hegel seemed in fact to reverse Pierre Bayle's criticism of Spinoza that picked on the identification of God with material things. Hegel did not argue that God corresponds to the things in the world, but that all things vanish in God and consequently, only one thing – namely God – exists in Spinoza's ontology. On Hegel's criticism of Spinoza, see Macheray (2003) and Morfino (2016a,175-230).

virtue of its cause. Then, it does not correspond to God, but it is modal, namely it is a mode which follows from Its nature. Finally, since the universe is a whole, this implies that it has a mereological structure. However, this whole shows some similarity with the unique substance, since it is ontologically independent from its parts which necessarily act according to universal and eternal laws. Furthermore, this whole is limited insofar as it is not the cause of itself, but there are no parts outside it. This seems to attribute to this whole a kind of necessity like that of the substance.

The focus of my research, although deeply interconnected with Spinoza's account of substance²⁴, enables to address his conception of the natural laws, of the order of existence and of the whole-parts relationship in the development of Spinoza's thought from an ontological, physical, ethical and epistemological perspective. Indeed, my approach highlights the ontological, epistemological, physical and ethical aspects related to Spinoza's conviction that human beings are not an *imperium in imperio*, but all things, even human beings, belong to the same and eternal order of Nature.²⁵ My aim is thus to clarify the development of what I will call "Spinoza's metaphysical cosmology." By "metaphysical cosmology" I mean an encompassing view of the universe based on specific metaphysical premises. In this sense, the mereology of the universe, as well as the connections and causal interactions among natural things, are within its reach. "Metaphysical cosmology" differs from "empirical cosmology" insofar as this latter is concerned with natural phenomena and observations. The former rather aims at explaining the deeper structure of the physical universe on the basis of certain metaphysical premises. This involves an understanding of the infinite universe in terms of whole-parts relationship, and of the issues deriving from the

²⁴ Spinoza's ontological argument have been investigated by many authors. See Gueroult (1968), Matheron (1991), Della Rocca (2002), Lin (2007) and Lærke (2011).

²⁵ I capitalize the word "Nature" to distinguish the whole nature/God from the nature of particular things.

definition of universal laws and the order of Nature in the light of Spinoza's metaphysical premises.

My claim is that Spinoza's metaphysical cosmology did not concern God's essence directly, but rather that which necessarily follows from this nature; in other words, this issue shows Spinoza's effort to clarify how different existing things act and are connected in Nature. As Lærke has pointed out, "Spinoza's cosmological argument," i.e. Spinoza's argument *a posteriori* for the existence of God which rests on the experience of the existence of finite things, has a clear link with Spinoza's theory of causation and power. This turns out to be fundamental to understand Spinoza's idea of Nature in his mature works.²⁶ Spinoza's account of the universe was not yet present in the early writings, but was the result of a speculative development leading Spinoza to offer an understanding of Nature in terms of whole-parts relationship as of 1665. From this year onwards, the universe was clearly explained as an infinite whole which had to be distinguished from the unique substance, since it belonged to the *Natura naturata*. This infinite whole or the whole of nature, as Spinoza called it in the *Ethics*, would correspond to the highest level of complexity, as all things act according to the laws governing this whole.

The problems of the order and of the whole-parts relationship in Spinoza's philosophy have been addressed by many scholars. In general, these two issues have been handled as separate ones in Spinoza's philosophy. On the one hand, the issue of the order of Nature went in parallel with what has been called "Spinoza's necessitarianism," namely the fact that all things necessarily follow from God's essence and cannot be produced in different ways as they are.²⁷ On the other hand, in Spinoza's monism, the whole-parts relationship is often connected with the relationship between God and

²⁶ Lærke defines the cosmological argument as "an argument which infers *a posteriori* the existence of an independent, necessary being, usually identified as God, from the experience that there exists some other being, often oneself, whose existence is dependent on this independent, necessary being" (Lærke 2011, 439).

²⁷ On Spinoza's necessitarianism see Garrett (2018) and Perler (2011).

things. Spinoza's contemporaries have usually interpreted this relationship in terms of inherence, and this interpretation is still supported nowadays (Carriero 1995; Melamed 2009). Other scholars have expressed doubts about this possibility and have suggested to read the relationship between God and things only as a causal relationship between God, which exists *per se*, and things, whose existence depends on God (Curley 1988; Messeri 1990). Jonathan Schaffer (2010) has offered an interpretation of Spinoza's account of substance in terms of whole-parts relationship. Schaffer attributes to Spinoza a form of monism in which the whole has an ontological and conceptual priority over its parts. The same issue is addressed by Dominik Perler (2015), who had suggested to interpret the whole-parts relationship in Spinoza's monism in terms of the relationship between a whole faculty and its parts, as it can be found in some Scholastic authors, such as Boethius and Thomas Aquinas.

These studies of Spinoza's whole-parts relationship have limited their consideration to the ontological aspects presented in the first part of the *Ethics*, without focusing on Spinoza's account of the universe. An attempt to address this issue can be found in Yirmiyahu Yovel (1991), who has tried to read the infinite modes in terms of natural laws,²⁸ in order to clarify the "crucial juncture of his [Spinoza's] system", i.e., that between the *Natura naturata*, "whatever follows from the necessity of God's nature", and the *Natura naturans*, "what is in itself and is conceived through itself" (E1p29s). Yovel concluded that Spinoza's *facies totius universi*, viz. the infinite mediate mode of extension, is the system of all laws of nature "taken as a whole" (*ibid.*, 88). A general investigation of the relationship between Nature, order and natural laws has been provided by Dan Garber, who compared Spinoza's conception of the order and of natural laws with that of Descartes, Leibniz and Hobbes, in order to show the different

²⁸ The idea of an order of Nature does not necessarily go together with that of laws of nature, even though they often appear interconnected or even as synonyms in the modern scientific discourse. However, the use of the term "law" in the modern scientific sense started to be widely used only in the second half of the seventeenth century, while beforehand it was mainly used in juridical, metaphysical or moral contexts (Roux 2001).

metaphysical foundations of such notions in these authors. Spinoza's account of the order of nature turns out to be very different from Descartes's one, since an immanent God has a different relationship with the material world than a transcendent God, who acts and creates the material world from the outside (Garber 2013).

A detailed investigation of Spinoza's account of the universe in terms of the whole-parts relationship has been neglected by scholars with few exceptions. William Sacksteder (1977) has investigated Spinoza's use of the terms "part" and "whole," and stresses that the whole nature as an infinite whole should be distinguished from the unique substance. Furthermore, he has argued that Spinoza develops a scale of degrees according to the mereological explanation of the universe presented in Letter 32, which does not only entail ontological and metaphysical issues, but also logical, physical, epistemological and ethical ones (Sacksteder 1991). From the connection between the face of the whole universe and Spinoza's physical use of the whole-parts relationship, Lorenzo Vinciguerra (2012) has underlined the presence of a cosmological hypothesis in Spinoza's philosophy. A hypothesis which becomes more relevant in the light of the distinction between extension – as an infinite, indivisible attribute of God – and an infinite whole as a mode of extension in Spinoza's *Ethics* (Schmaltz 2020, 247-253).

The original contribution of my research is to stress and clarify the development of what I have defined Spinoza's "metaphysical cosmology" by highlighting continuities and discontinuities from the early writings to the *Ethics*. While interpreters have usually undertaken a synchronic reading of Spinoza's *corpus* to substantiate their interpretations, the development of Spinoza's account of the universe supports the idea of a relevant theoretical shift from the early to the mature works. An investigation of the theoretical and contextual reasons for this development is essential to grasp whether Spinoza's conception of the universe is the result of a continuous theoretical effort or has been affected by external factors, such as the

criticism of theologians, new sources or the critical assessments of his interlocutors.

Furthermore, my investigation is based on two fundamental interpretative assumptions. First, to give a central importance to Spinoza's attribution of extension to God in the discussion of his metaphysical cosmology, since this topic is deeply related to the question of the relationship between God and the material world.²⁹ Indeed, God's role in the explanation of natural phenomena largely depends on how God acts or is involved in producing effects in matter. Moreover, in Letter 63 to Georg Hermann Schuller Spinoza offers as example of the mediate infinite mode only for God's attribute of extension: "the face of the whole Universe (*facies totius universi*), which, however much it may vary in infinite ways, nevertheless always remains the same" (Letter 64). Here, Spinoza refers to his explanation of individuals presented in the so-called *Physical Interlude of Ethics II* where he affirms that "we shall easily conceive that the whole of nature is one Individual, whose parts, i.e., all bodies, vary in infinite ways, without any change of the whole Individual" (EIIp14L7s).

Second, to assume the existence of a pluralism of things in Spinoza's substance monism. This does not mean that I have neglected the theoretical and argumentative problems concerning the possibility of the existence of infinite things in Spinoza's account of God. Rather, these issues have been largely discussed and several solutions have been proposed, so it is hard to provide any contribution from this perspective.³⁰ I take seriously the fact that Spinoza's aim is

²⁹ A pluralist reading of things is provided by Guigon (2011). The importance of Spinoza's account of extension for this topic have been also stressed by Tad Schmaltz (2020). Schmaltz investigate Suarez's and Descartes' philosophies to clarify Spinoza's conception of the material world, while I will focus on the development of this conception within Spinoza's own thought. However, I and Schmaltz agree on many key issues, such as the problem of the nature of extension and the existence of an infinite modal substance which follows from God's essence.

³⁰ The problem concerning the existence of more than one thing in Spinoza's ontological argument has frequently been discussed. Many scholars have seriously dealt with Hegel's criticism of acosmism and have tried to figure out whether Spinoza's argument was strong enough as to conclude the existence of a multiplicity of finite things. For instance, Melamed (2010) has claimed that the

to clarify how human beings, intended as particular things, act within the whole Nature. Consequently, the existence of a pluralism of things according to his monism is a matter of fact, although his argument for the existence of a multiplicity of things might appear unsatisfactory or logically inconsistent, as Hegel argued. In a nutshell, these assumptions and the research focus on Spinoza's metaphysical cosmology help set boundaries to my research, leaving out some general problems concerning Spinoza's conception of attributes, such as their subjective or objective nature and the existence of absolute infinite attributes or all possible existing attributes. Even though extension is only one of the infinite attributes of God, it occupied a prominent position from the point of view of Spinoza's account of the universe.

This first part of my dissertation is divided into three chapters. In the first, I will present the issue of an identification between God and Nature in Spinoza's works, its theological implications and scientific roots. My aim is to clarify why the attribution of extension to God plays a pivotal role in all of Spinoza's works, even though there are many discontinuities between his early and mature works. This chapter will also shed light on what is at stake in Spinoza's explicit attribution of extension to God from different perspectives (theoretical, ethical, theological and physical).

In the second chapter, I will analyze the development of Spinoza's account of universe from the *Short Treatise*³¹ to Letter 32 to Henry Oldenburg written in 1665. The KV is Spinoza's early philosophical attempt to clarify God's nature. Here, he addressed theological, metaphysical and to some extent physical problems concerning the attribution of extension to God, such as the existence

theory of infinite modes enables one to reject Hegel's criticism even though Spinoza's weak account of individual does not suffice to prove the existence of finite things. Moreover, Hübner (2014) has argued that the necessity of modes is implied and justified by Spinoza's thinking substance. Finally, many authors retain that the existence of infinite many things is an implicit consequence of God's absolute infinite power which is expressed in EIp16 (see Matheron, 2020): "From the necessity of the divine nature there must follow infinitely many things in infinitely many modes, (i.e., everything which can fall under an infinite intellect)".

³¹ Hereafter KV.

of parts in Nature and the origin of motion. This analysis will offer a first overview of Spinoza's metaphysical cosmology, its problems and limitations. The *Correspondence* from 1661 to 1665 is fundamental to investigate step by step the development of Spinoza's account of the universe: in his letters, indeed, Spinoza offered definitions, conceptual clarification of key notions, and sketches of his view of the universe in terms of whole-parts relationship.

In the third chapter, I will consider a few passages of the *Theological-Political Treatise*³² and of the first two parts of the *Ethics*. First, the study of the will make it possible to clarify Spinoza's latest account of law, which was only sketched in the Letter 32 analyzed in the second chapter, and play a pivotal work in his mature works. Second, I focus on the *scholium* of E15 of the *Ethics* in which Spinoza rejected the arguments against divine extension, including Descartes' one in order to show the continuities and discontinuities between the *Ethics* and Spinoza's early writings investigated before. Finally, I introduce Spinoza's mature theory of the infinite mode, in which he distinguished between immediate and mediate modes, in order to address the *facies totius universi* presented in what Scholars have called the *Physical Interludes*, i.e. a general physical explanation of a few laws of motion and collisions, of different kinds of bodies, of the notion of individuum and its features. Here, Spinoza offers his worldview, i.e. the mediate infinite mode of extension called by him the face of the whole universe, which turns out to be an infinite individual corresponding to the whole nature. The universal laws of this whole govern the dynamic motion of its parts without excluding their acting according to less universal or so-to-say particular laws. This mature account of universe enables to distinguish different things not on the basis of ontological difference, but according to different degrees of complexity in Nature which corresponds to a growing power of acting.

³² Hereafter TTP.

Chapter 1

Introduction to the Theological Implications and Scientific Perspective of Spinoza's Attribute of Extension

In the *Ethics*, God is defined as “a being absolutely infinite, i.e., a substance consisting of an infinity of attributes” (EIde6). God necessarily exists, since Its essence implies Its existence (EIp11), and It is the only existing substance (EIp14) because more substances of the same attribute cannot exist (EIp5). Extension is one of God's infinite attributes and expresses Its essence. (EIp14c2) Consequently, all things exist in God and are conceived through It (EIp15). From Its infinite nature follows infinite many things in infinite many ways (EIp16) and It is the immanent cause of everything (EIp18). Spinoza's ontological argument raises many theoretical and metaphysical issues, such as monism, immanent causation or theory of attributes, which have been extensively investigated by scholars.³³

Scholars have interpreted Spinoza's '*Deus sive natura*' in different ways, since it is ambiguous as to whether God is identical with the material world or he only had in mind a causal relationship between the two.³⁴ In this chapter, I will confine myself to discussing Spinoza's attribution of extension to God in his works. It is a consequence of Spinoza's identification of God and Nature which can be found for the first time in the KV. This identification has been

³³ In particular, Michael Della Rocca has addressed Spinoza's monism extensively (see Della Rocca 2002; 2008, Chapter II; 2012). This is a fundamental and highly debated issue, since it also concerns the relationship between God and things. An example of the importance of this issue is the debate between Edwin Curley and Jonathan Bennet in *God and Nature. Spinoza's Metaphysics* (1991) or Martial Gueroult's analysis of Spinoza's *De Deo* (Gueroult 1968).

³⁴ The idea that Spinoza identifies God with the natural world itself and, consequently, the idea that Spinoza endorses materialism has its roots in Pierre Bayle's *Dictionnaire Historique et Critique*. Particularly relevant are the readings of Spinoza's account of God in terms of inherence (see Carriero 1995; Melamed 2009), as identical with laws of nature (Curley 1988) or influenced by late Scholastic views (Di Vona 1969).

understood by Spinoza's contemporaries as an identification between God and the material world and, thus, having blasphemous implications. Moreover, this account of extension is indebted to Descartes' mechanical philosophy, even though Spinoza departed from Descartes to some relevant extent. The aim of this chapter is to show the theological implications of Spinoza's account of extension and his metaphysical approach to physics, in order to underscore the issues and problems related to his metaphysical cosmology.

1.1. Extension as a Divine Attribute

It is unsurprising that Spinoza had to face the problem of God's attribute of extension already in his *Correspondence*, since this issue was deeply connected with a few problems left open by Descartes' philosophy, such as the interaction between mind and body, or the origin of motion. In particular, the understanding of extension as an attribute of God was considered by Spinoza's contemporaries as one of the most worrisome aspects of his philosophy, as the exchange with Henry Oldenburg testifies. In the first letter of the *Correspondence*, written in 1661, Henry Oldenburg asked Spinoza to clarify the causal interaction between extension and thought. Spinoza answered by providing a "true" definition of God³⁵:

[D 1] God, whom I define as a Being consisting of infinite attributes, each of which is infinite, or supremely perfect in its kind.

Here it should be noted that [D2] By attribute I understand whatever is conceived through itself and in itself, so that its concept does not involve the concept of another thing. For example, Extension is conceived through itself and in itself, but

³⁵ In Letter 9 to Simon de Vries Spinoza distinguishes two kinds of definition: "So a definition either explains a thing as it is [NS: in itself] outside the intellect-and then it ought to be true and to differ from a proposition or axiom only in that a definition is concerned solely with the essences of things or of their affections, whereas an axiom or a proposition extends more widely, to eternal truths as well--or else it explains a thing as we conceive it or can conceive it-and then it also differs from an axiom and a proposition in that it need only be conceived, without any further condition, and need not, like an axiom [NS: and a proposition] be conceived as true. So a bad definition is one that is not conceived" (Letter 9).

motion is not. For it is conceived in another and its concept involves Extension. That [DI] is a true definition of God is clear from the fact that by God we understand a Being supremely perfect and absolutely infinite” (Letter 2).³⁶

The exchange between Spinoza and Oldenburg highlights some relevant aspects of Spinoza’s approach to philosophical and, in a broader sense, scientific problems. On the one hand, Descartes’ philosophy left open many problems concerning the explanation of the body-mind interaction – the universal causation among things might be problematic too, as some early modern occasionalists (e.g., Nicolas Malebranche) highlighted – and the gap between metaphysics and natural philosophy.³⁷ Furthermore, as Letter 3 clearly shows, Oldenburg’s question was probably related to the debate over the material or spiritual nature of thought: “What Thought is, whether it is a corporal motion or some spiritual act, entirely different from the corporal, is still unresolved” (Letter 3, 169). All these issues played an important role to elaborate a metaphysical approach to early modern natural philosophy.

On the other hand, Spinoza’s approach to these scientific problems shows an interest in metaphysical issues which was unusual for other Dutch Cartesians, such as Johannes De Raey. Indeed, Spinoza posited that a true understanding of God’s essence, i.e. a metaphysical endeavor, is necessary also to ground any scientific investigation on the natural world, particularly to address the problem of the interaction between extension and thought. This is relevant, since among Descartes’ followers in the Netherlands theological and physical issues were completely separated. Indeed, the Dutch Cartesians’ separation thesis rested on the idea that theology and natural philosophy belong to two independent fields and, consequently, that Descartes’ natural philosophy did not treaten any

³⁶ The number of definitions were added by Curley for the sake of convenience, but they are not present in the manuscript.

³⁷ Nadler (2010) offers an overview of body-mind causal interaction within Occasionalist account of causations. See Antoine-Mahut and Roux (2019) for an overview of the receptions and problems between Descartes’ physics and metaphysics.

theological doctrine or the validity of Scripture. By contrast, Spinoza's metaphysical approach clearly trespassed into theological issues concerning God's nature, infinite power and purposes (Douglas 2015, 36-63).³⁸

The study of the correspondence with Oldenburg reveals the interconnection among metaphysical, scientific and theological issues concerning the material world and its ontological foundation. In 1661 Spinoza already started working on the *TIE* and the KV – both works will be left unfinished. Furthermore, there is textual evidence of a draft *more geometrico* of his philosophy attached to Letter 2.³⁹ A comparison between these texts shows many differences between Spinoza's early ontological argument and the argument presented in the *Ethics*.⁴⁰

There are at least three aspects that should be taken into account while investigating the differences between Spinoza's early writings and the *Ethics*: the stylistic one, the argumentative one and, to some

³⁸ For a broader analysis of the reception of Descartes' philosophy in the Netherlands see Strazzoni 2018.

³⁹ Some scholars have suggested that this could be the first draft of the *Ethics*. Even though the text is now lost, it was partially reconstructed through Spinoza's correspondence. It is debated whether the *First Draft* is part of the KV or a different geometrical exposition of Spinoza's thought. Melamed (2019) has argued for the former option. Instead, Saccaro Del Buffa, who has provided an accurate reconstruction of the possible content of the first draft through Spinoza's correspondence, has argued for a distinction between this draft and the appendix of the KV. She claimed that the first draft was chronologically posterior to the KV and fundamental to investigate the development of Spinoza's account of God beside the KV (see Saccaro Del Buffa 2004, 31-65).

⁴⁰ First of all, there are some conceptual differences between the KV and the *Correspondence* testifies a clear development of the ontological argument. For instance, God is defined as "a Being consisting in infinite attributes" without any reference to the concept of substance in Letter 2 and in the KV, while it is conceived as "a substance consisting of an infinity of attributes" in E1def6. Furthermore, Spinoza provides a definition of substance in Letter 4 which corresponds to that of attributes in Letter 2. Here the two definitions in comparison: "By attribute I understand whatever is conceived through itself and in itself, so that its concept does not involve the concept of another thing" (Letter 2); "For by Substance I understand what is conceived through itself and in itself, i.e. , that whose concept does not involve the concept of another thing" (Letter 4). The KV itself presents a terminological ambiguity, since Spinoza often uses substance and attribute as synonym. For instance, Spinoza talks of "attribute or substance" as synonyms (see KV, app I, p3). Instead, one finds two distinct definitions in the *Ethics*. Here, he understands by substance "what is in itself and is conceived through itself; i.e that whose concept does not require the concept of another thing, from which it must be formed" (E1def3) and by attributes "what the intellect perceives of a substance, as constituting its essence" (E1def4).

extent, the conceptual one. Here, I will just stress the conceptual issue raised by Spinoza's account of God, which enables to clarify the key role of the attribute of extension in all his works. Spinoza explicitly identified God with Nature⁴¹ in the KV for the first time.⁴² This identification follows from four different and inter-connected premises: God's omnipotence; the simplicity of Its will; God's necessity of doing any good; the impossibility that non-existing substances can be brought to existence by another one. In the KV, Spinoza stated that all attributes⁴³ in God's infinite intellect correspond to the attributes which are formally in Nature (KV, I, 11) and, consequently, that "Nature consists of infinite attributes, of which each is perfect in its kind. This agrees perfectly with the definition one gives of God" (KV, I, 2)⁴⁴.

This statement goes in the direction of a substance monism and the four premises seem to be related to God's superabundant power which will play a key role in the *Ethics*.⁴⁵ However, the ontological structure provided in the KV appears less clear and straightforward than that of the *Ethics*. While God is defined as "an absolute infinite being, i.e. a substance consisting of an infinity of attributes" in E1def6, in the KV Spinoza talks about the existence of a perfect being to which all existing substances belong.⁴⁶ Furthermore, a clarification

⁴¹ Spinoza never provided a definition of what Nature is. This concept was often misunderstood, and Nature was conceived as synonymous with the material world by early interpreters, while it is also related to the attributes of thought. I will assume that God or Nature may be used as synonyms in Spinoza's philosophy.

⁴² It is important to notice that the KV is an unfinished work, missing in Spinoza's *Opera Posthuma*, which presents many interpretative problems. It has in fact a fragmentary structure. Moreover, it contains notes and appendixes which are probably the results of many reworkings and additions at different times.

⁴³ To avoid confusion, I will use the terms "substance" and "attribute" as Spinoza does in the *Ethics* when he establishes a distinction between the two. From now on, I will assume that the reader is aware of the terminological ambiguity of the KV, in which substance and attributes seems to be interchangeable.

⁴⁴ God is "a being of which all, or infinite, attributes are predicated, each of which is infinitely perfect in its own kind" (KV, 1,2).

⁴⁵ The fourth premise, i.e. the impossibility that a substance is the cause of the existence of another one, is still fundamental in Spinoza's mature proof of God's existence (see E1p6).

⁴⁶ According to Gueroult the presence of many substances characterizes also the *Ethics*. The main difference consists in the fact that the concept of substance is related with the concept of *causa sui*, i.e. a thing "whose essence involves

of the relationship between God and things in terms of substance-mode relationship is only provided in the first appendix in the KV.⁴⁷

Moreover, in the KV, Spinoza argued for the unity of Nature in three different ways. His aim is to exclude the possibility that different attributes might be conceived as many different Gods – even though they might be understood distinctly without the others.⁴⁸ The first argument consists in positing ontological degrees among things according to their attributes. The more essence a thing has, the more attributes it has. These different ontological degrees go from nothing [*nihil*], which has no attributes, to God, which has infinite attributes and Its existence has been demonstrated by Spinoza previously in the KV (see KV, I, 2, 1).⁴⁹ The second argument rests on what seems to be a counterintuitive experience of the unity in Nature which would be impossible if many beings existed independently of each other.⁵⁰

existence, *or* that whose nature cannot be conceived except as existing” (E1def1) by its own nature, in the *Ethics* and not in the early writings (Gueroult 1968, 428).

⁴⁷ This is particularly relevant if we see the *Ethics* in which this topic is largely addressed and these concepts are among the fundamental one.

⁴⁸ In Letter 3, Oldenburg objected that from Spinoza’s ontological argument did not rule out the existence of many Gods: “Regarding the second, that a Substance cannot be produced, not even by another substance, I consider that we can hardly grasp how this could be true, since nothing can be its own cause. This proposition sets up every Substance as its own cause, and makes them all independent of one another, makes them so many Gods. In this way it denies the first cause of all things” (Letter 3). It is interesting to notice that Schuller saw in the *Ethics* a similar problem when he talked of infinite parallel worlds corresponding to God’s infinite many attributes. This problem is mainly an epistemological one related with Spinoza’s thesis of the correspondence among attributes, since Spinoza posits the independence of each attributes from the others: “[First,] would you please, Sir, convince us by some probative demonstration, not by a reduction to impossibility, that we cannot know more attributes of God than thought and extension? Furthermore, does it follow from this that, in contrast to us, creatures consisting of those other attributes cannot conceive extension. In this way it would seem that there must be as many worlds established as there are attributes of God? For example, our World of extension has, so to speak, a certain size. Would there also be Worlds of the same size, consisting of other attributes, in which, as we perceive nothing besides extension (except thought), the creatures of those Worlds would have to perceive nothing but the attribute of their own World and thought?” (Letter 63).

⁴⁹ “Because we have already found previously that there must be an infinite and perfect being, by which nothing else can be understood but a being of which all in all must be predicated. For of a being which has some essence, [some] attributes must be predicated, and the more essence one ascribes to it, the more attributes one must also ascribe to it. So if a being is infinite, its attributes must also be infinite, and that is precisely what we call a perfect being” (KV, II, 17).

⁵⁰ “Because of the unity which we see everywhere in Nature; if there were different beings in Nature, the one could not possibly unite with the other” (*ibid.*).

Finally, the third argument affirms that the essence of substances does not imply any existence, but this follows necessarily in the case of Nature, i.e. a being with infinite attributes and which has no cause. This statement is puzzling since substances should depend on Nature, while in the *Ethics* their essence itself implies existence and conceptual independence.⁵¹ Moreover, Spinoza states that God is uncaused and not the cause of itself, while in the *Ethics* God is said to be caused by itself.⁵²

This brief comparison between Spinoza's early ontological argument and the version that will be presented in the *Ethics* brings to light a clear conceptual development in Spinoza's argument concerning his account of God. Giuseppina Saccaro Del Buffa (2004) has suggested that it is possible to recognize an evident metaphysical shift from an early hierarchical ontological structure, inspired by Neoplatonic-cabbalistic concepts, to the well-known pantheistic identification between God and Nature as an absolute, self-caused, and infinite substance which is the immanent cause of everything.⁵³ On the contrary, Francesca Di Poppa (2009) has reacted to this interpretation by arguing that an identification between substance and attributes would be inconsistent with the philosophical use of

⁵¹ The fact that substances are not cause of themselves and cannot be conceived in themselves is clearly expressed in note f to the main text: "I .e. , if no substance can be other than real, and nevertheless no existence follows from its essence if it is conceived separately, it follows that it is not something singular, but must be something that is an attribute of another, viz. the one, unique, universal being." Or thus: every substance is real, and the existence of a substance, conceived in itself, does not follow from its essence. So no real substance can be conceived in itself; instead it must belong to something else. I.e., when our intellect understands substantial thought and extension, we understand them only in their essence, and not in their existence, i.e. [we do not understand] that their existence necessarily belongs to their essence. But when we prove that they are attributes of God, we thereby prove a priori that they exist, and a posteriori (in relation to extension alone) [that it exists] from the modes that must have it as their subject." (KV, I, 2, note f).

⁵² The problem concerning Spinoza's ambiguous conception of *causa sui* is stressed by Lærke (2013) starting from an analysis of Spinoza's Letter 12 to Oldenburg. Despite these ambiguities, Lærke concluded that Spinoza's cosmological argument, i.e. a deduction of God existence a *posteriori* based on the existence of many things, rest on a conception of God as self-caused.

⁵³ It is important to notice that Saccaro Del Buffa's opinion does not seem to be shared by Filippo Mignini who thinks, as we can see by his edition of Spinoza's works (*Opere*), that there is already an identification between God, Nature and a unique substance in the KV (See Mignini 2007, 1545). The KV seems to support both these readings.

substance in the seventeenth century. Rather, the ambiguity concerning Spinoza's use of the term "substance" is due to the fact that Spinoza did not state when he uses the term in relation to "what the Cartesians call" substance, i.e., extended and thinking things (Di Poppa 2009, 929).

Despite interpretative problems concerning a different ontological structure of reality as presented in Spinoza's works, it is important to notice that this issue does not change the attribution of extension to God which is posited in both the KV and the *Ethics*. It is from the identification of God with Nature that the most blasphemous aspect of Spinoza's philosophy follows in the eyes of his critics, together with the rejection of God's free will. Before addressing this issue by means of investigating the development of Spinoza's thought, it is useful to clarify the theological problems of the attribution of extension to God and Spinoza's metaphysical approach to scientific problems.

1.2. The Theological Argument against God's Attribute of Extension

The statement that extension is one of the divine attributes comes after the definition of God as a perfect and absolute being consisting of infinite attributes in the definition provided in the KV. This and the identification between God and Nature were two different but interconnected problems. Spinoza himself was well-aware of the common philosophical and theological objections against his own conception of God and extension:

From all that we have said so far it is clear that we maintain that extension is an attribute of God. Nevertheless, this does not seem possible at all in a perfect being. For since extension is divisible, the perfect being would consist of parts. But this cannot be attributed to God, because he is a simple being. Moreover, when extension is divided, it is acted on; and that too cannot in any way be the case in God (who is not susceptible of being acted on, and

cannot be acted on by any other being, since he is the first efficient cause of everything) (KV, I, 2 - 18).

According to what Spinoza seems to consider a common opinion, God's simplicity is incompatible with the intrinsic divisibility of extension. Indeed, what is divisible is also finite and passive insofar as it might be affected by external things. This argument relies on the assumption that divisibility is an intrinsic feature of the attribute of extension and, consequently, this latter would be inconsistent with God's perfection, simplicity, eternity, and omnipotence. Spinoza's explanation of extension begins with the rejection of the intrinsic divisibility of matter, as I will show in the second chapter. Even though Spinoza explicitly affirmed his desire to avoid theological disputes, he never hid his own conception of God's attributes and often pretended to be surprised of the common conception of extension.⁵⁴ Consequently, he immediately became a target of the criticism of theologians because his heterodox conception of extension, as he told Oldenburg in 1661/1662:

I fear, of course, that the theologians of our time may be offended and with their usual hatred attack me, who absolutely dread quarrels. I shall look for your advice regarding this matter, and to let you know what is contained in this work of mine which might somewhat offend the preachers, I say that I regard as creatures many 'attributes' which they – and everyone, so far as I know – attribute to God. Conversely, other things, which they because of their prejudices regard as creatures, I contend are attributes of God, which they have misunderstood. Also, I do not separate God from nature as everyone known to me has done. So I look for your advice, regarding you as a most faithful friend, whose honesty it would be wrong to doubt (Letter 6).

Spinoza here recognized that one of the most problematic aspects of his philosophy for the “theologians of his time” concerned the attribution of extension to God, which they conceived as a certain,

⁵⁴ As Jaques-Louis Lantoine has stressed, Spinoza uses a false surprise with his interlocutors as a strategic argumentative tool. In fact, it is evident that he was fully aware of his heterodox argument (Lantoine 2020).

divisible corporal substance.⁵⁵ Even though the rejection of some traditional attributes such as goodness could also be problematic, Spinoza explicitly recognized that his own account of extension represented the main threat to current theological views, since – in his view – theologians misunderstood the true nature of extension and were not able to conceive God and Nature unseparated as he did. This fear will be confirmed by Oldenburg in 1675 after Spinoza asked him to clarify which passages of the TTP “have caused learned men to have misgivings” (Letter 68). Without hesitating Oldenburg referred to the identification between God and Nature:

I can only approve your intention to clarify and soften the things in the *Theological-Political Treatise* which caused trouble to your Readers. I would think that these include especially those passages in the work which seem to speak ambiguously about God and Nature. A great many people think you confuse these two things (Letter 71).

Oldenburg was acquainted with Spinoza’s account of God, since they discussed it starting from 1661. Consequently, it is unlikely that Oldenburg really aimed to have further clarifications from Spinoza. More likely, Oldenburg rather wanted to invite Spinoza to adapt his position to a more traditional and well-accepted one where God is separated and completely distinct from his creation.⁵⁶ Instead of

⁵⁵ There was no problem in conceiving thought as an attribute of God. Consequently, it is evident that the dispute with the theologians would mainly concern the attribute of extension conceived as a certain, divisible corporal substance. See Pasnau (2011) for a reconstruction of the different metaphysical positions about extension.

⁵⁶ Instead, Nadler have argued that “it is fairly clear that he [Oldenburg] does not have a clue about Spinoza’s full position. If this is certainly true, it is also true that Oldenburg had surely enough element to figure out that Spinoza identified God with the material world to some extent. Rather, a change in Oldenburg’s attitudes to Spinoza’s philosophy after their correspondence was visible in 1675, ten years after the interruption of their dialogue. Even though Oldenburg never embraced Spinoza’s philosophy and always expressed his doubts about it he assumed a more critical and preachy approach after the 1675. This was likely due to different historical and political factors. First of all, the correspondence between Oldenburg and Spinoza was interrupted because of the Second Anglo-Dutch War (4 March 1665-31 July 1667) during which time Oldenburg was accused of treason and imprisoned because of his relationship with many European figures. This experience deeply marked Oldenburg’s character and strengthened his religious belief. In addition, Spinoza published the TTP in 1770 and this put him at the center

following this suggestion, Spinoza pointed out that his conception of God and Nature differed from Oldenburg's one:

Regarding the first, I favor an opinion concerning God and Nature far different from the one Modern Christians usually defend. For I maintain that God is, as they say, the immanent, but not the transitive, cause of all things. That all things are in God and move in God, I affirm, I say, with Paul, and perhaps also with all the ancient philosophers, though in another way- I would also be so bold as to say, with all the ancient Hebrews, as far as we can conjecture from certain traditions, corrupted as they have been in many ways. Nevertheless, some people think the *Theological-Political Treatise* rests on the assumption that God is one and the same as Nature (by which they understand a certain mass, or corporeal matter). This is a complete mistake (Letter 73).

It is important to clarify what theologians' mistake is for Spinoza. Of course, it is not their idea that that Spinoza considered God and Nature as one and the same thing. Rather, the mistake consisted in confusing Spinoza's notion of Nature with "a certain mass or corporeal matter." For Spinoza, Nature was something else, insofar as it was identified with God, which in turn consisted of infinite attributes. Consequently, it was an error to conceive Nature as identical with the material world. Even assuming that a conception of Nature as extension might be acceptable to some extent,⁵⁷ for Spinoza his critics still made an important mistake when they regarded Nature as a certain mass or corporal matter. The common view about extension corresponded to conceiving it as a certain quantity of passive, divisible and finite, or, at best, indeterminate matter. In Spinoza's view, this prejudice hindered philosophers and theologians from accepting his identification of God and Nature.

of the theological and anti-Cartesian disputes. Spinoza himself complained to Oldenburg in 1675 because he was harshly attacked by theologians and also by many Cartesians, before he was able to publish his *Ethics*. Consequently, having a relationship with Spinoza became probably more dangerous and frowned upon in the 1675 than in the early 60s. Consequently, it is not surprising that Oldenburg offered common theological objections against Spinoza's *TTP* and, in particular, against his identification of God with Nature (Nadler 1999, 329).

⁵⁷A definition of Nature as matter can be found in Descartes' *The World* (see CSM, I, 92).

The identification of God and Nature was interpreted by theologians in terms of a reduction of God's perfect nature to passive and divisible corporal matter. This undermined God's perfection and simplicity but also indirectly undermined Christian piety according to his critics. Lambert Van Velthuysen's criticism is certainly the most adequate among Spinoza's contemporaries, since he highlighted that Spinoza's account of God is characterized by necessitarianism. God's necessary action concerns also the order of Nature and led to the identification of God with the material world – as he pointed out when commenting Spinoza's *TTP* in Letter 42 to Ostens in 1671.⁵⁸ This leads to “fatal necessity” which undermined the possibility of miracles, falsified the content of Scripture and destroyed the foundation of Christian piety and virtue. This criticism is relevant for many reasons. First of all, van Velthuysen was a doctor in medicine, widely known for his advocacy of Cartesianism, committed to Hobbes' philosophy and personally acquainted with Spinoza. Consequently, it is understandable why Spinoza was so upset and surprised in light of his criticism. Furthermore, even though van Velthuysen's target was mainly the Spinozist philosophy of religion, he stressed a logical inconsistency between the attribute of extension as indivisible and its manifold modes in Spinoza's account of God. Without analyzing here his criticisms in detail, it is important to notice that, as Siebrand has noticed, “according to Van Velthuysen, what counts then is to put God and the world, reason and religion at the greatest distance from one another, while at the same time showing that like a gearing they are part of the same system” (Siebrand 1988, 94). Such an effort could not fit in with Spinoza's account of an immanent God, which undermined any possibility to separate God's agency and natural causation, including ethical implications.

⁵⁸ As Melamed has pointed out, there is no explicit identification between God and Nature in the *TTP* but many reasons to come to this conclusion. Indeed, not only Oldenburg, but also “Lambert van Velthuysen charged Spinoza with asserting that all things emanate from God's nature and that the universe itself is God” (Melamed 2010, 133).

1.3. The Metaphysical Approach to a Novel Conception of the Physical World

Beside theological debates, the roots of Spinoza's conception of extension should be sought in his well-known interest for Descartes' mechanical philosophy.⁵⁹ Indeed, Spinoza's account of the universe and his conception of extension is also a result of his philosophical engagement with metaphysical issues raised by Descartes and other mechanical philosophers.⁶⁰

Descartes' mechanical philosophy⁶¹ departed from the Aristotelian one. Aristotle claimed that bodies are substances playing an active role in the explanation of natural phenomena, insofar as they produce effects according to their substantial form. In opposition to this teleological and heterogeneous conception of the natural world, Descartes offered a geometrized account of Nature in which matter is claimed to be homogeneous, is identified with extension, and is inert. In general, bodies do not possess any active power by its own nature and all natural processes are regulated by the universal laws of motion which were imposed directly by God onto the created world, and are grounded on divine immutability.⁶²

⁵⁹ See Koyré's narrative that illustrates a clear development from the Aristotelian to the Modern conception of the world and its limits (Koyré 1957).

⁶⁰ A general overview of the possible influence of Galileo's, Huygens' and Boyle's novel science on Spinoza is provided by Simonutti (2007). Furthermore, Flip Buyse has also investigated a possible influence of Huygen's pendulum clock on Spinoza's thesis of the agreement among bodies in nature presented in Letter 32 to Oldenburg. According to Buyse, Spinoza's idea that the laws of things adapt to each other has to be understood in the light of Huygens's mechanical thesis that "synchronization is a phenomenon whereby oscillators that are appropriately coupled together will adjust their oscillations so as to exhibit a synchronous motion that is regulated by weak impulses communicated through their mutual coupling" (Buyse 2017, p. 121)

⁶¹ I am aware of the problems concerning an exhaustive definition of mechanism. Many scholars have shown the difficulties to offer a coherent list of common properties or a definition of mechanism through which might be clearly distinguished a mechanic philosopher from a non-mechanic one (see Garber and Roux 2013, Gabbey 2004). On Descartes' mechanical philosophy see Roux (2004).

⁶² Descartes's use of God's immutability to provide a foundation for the laws of nature is stressed by Peter Harrison which argues that this "invocation of God as the ultimate efficient cause of the natural world seems to allow for an almost completely 'naturalized' explanatory account of the world. Nature could be explained purely in terms of laws of nature, and provided one does not inquire

Even though Descartes described bodies as individual corporal substances, characterized by properties such as size, length and figure, bodies were for him deprived of any autonomous casual power and, consequently, their motion neither depended on their individual essences nor expressed God's own purposes. According to Descartes' view, substantial material forms does not have any real explanatory function and, consequently, they are useless to understand natural processes. To provide an explanation of natural phenomena it is required the knowledge of the universal laws of nature which regulates the motion of all natural things.⁶³ Consequently, the notion of a "substantial material form" was completely dismissed by Descartes in favor of a reductionist program in which occult properties and substantial forms were dismissed. In fact, matter was everywhere the same and the different properties of things depended only on the respective motion of different parts. The distinction between the sublunar and celestial world as well as that between different kinds of motion, such as natural and violent one. Instead, there is an homogeneous universe from a material point of view in which bodies motion is governed by universal laws. In particular, by the principle of inertia, i.e. the idea that a body maintain its status of motion and rest as long as external causes do not intervene. Finally, Descartes' natural philosophy departs from the idea of a teleology in nature which reveals God's purpose. In general, it is claimed that this conception of the natural world did not undermine only the surface of

further into metaphysical basis of those laws, these explanations might be regarded as self-sufficient" (Harrison 2019, 63).

⁶³ Substantial forms are fundamental in different ways to Aristotelian natural philosophy: they enable to distinguish the essential from the accidental properties of bodies; they offer a foundation for the Aristotelian theory of motion and natural places, since the presence of different substantial forms in nature determines different way of acting; they could play a pivotal role concerning the principle of individuation. Even though a revision of the concept of substantial form, which was conceived in different ways, already begun within the Aristotelian frameworks with Suarez it still was a key notion before Descartes dismissed it from the natural world. The notion of substantial form underwent many changes within the Aristotelian tradition itself in particular through Suarez's works and became the main target of anti-Aristotelian positions already during the Sixteenth century (see Hattab 2009).

Aristotelian natural philosophy but also its ontological and theological roots.⁶⁴

Descartes's "metaphysical physics", as Daniel Garber (1992) has called it,⁶⁵ offered a starting point for Spinoza's novel philosophy. As many authors have argued, Spinoza's philosophy is the results of a trend already, even though implicitly, present in Descartes's philosophy.⁶⁶ From a metaphysical perspective, Spinoza recognized God as the only principle of action and, consequently, saw It as the only substance in a proper sense. Even though Descartes still conceived bodies and souls as substances, they were in comparison to God substances of second order, insofar as their essence depended on God. Spinoza's account of a unique substance appeared to follow from a possible interpretation of Descartes' philosophy, in which it is accepted the notion of substance *stricto sensu* and not that of second order which attributes substantiality to bodies and souls.

⁶⁴ For a broader comparison between Aristotelian physics and Descartes mechanism see Messeri (1990, 112-117). An example of the importance of this change and its implications is testified by the dispute 1640s during the so-called Utrecht crisis in the early 1640s. Henricus Regius (1598-1679), a prominent promoter of Descartes' mechanic philosophy of medicine and professor in Utrecht, provided Cartesian theses in which the existence of substantial forms and their explanatory relevance in natural philosophy were denied. On the contrary, Gisbertus Voetius (1589-1676), Rector of Utrecht University and prominent Calvinist theologian, rejected and condemned Regius' theses, since they appeared close to Arminian positions and undermined the Christian piety (Hattab 2009). Regius' theses were for Voetius a direct attack against Aristotelian science and, more importantly, against Christian piety, insofar as they dismissed the action of things from the natural world through which God's infinite goodness and free will was expressed. Indeed, in Voetius' theological view things revealed God's purposes by acting in a certain way. This premise led him to consider the Cartesian mechanic philosophy as impious and dangerous for religious piety. Alexander Douglas has reconstructed in detail the history of this theological and philosophical struggle, and has highlighted also the difference between the positions of Spinoza and of the Dutch Cartesians. In Douglas' view, Spinoza aimed to undermine the argument proposed by many Cartesians that established a complete independence between philosophy and theology (See Douglas 2015, 9-35).

⁶⁵ Whether Garber is right in calling Descartes' physics metaphysical will not be questioned here. I consider that this definition, although it overlooks the empirical and experimental aspects of Descartes' natural philosophy, is particularly suited to investigate Spinoza's point of view. Notwithstanding Spinoza did not lack interest in contemporary physics and in different scientific approaches as much as scholars have usually thought, a proper physical investigation or experimentation is missing in all his works.

⁶⁶ Curley (1988) has carefully highlighted Descartes' influence on Spinoza's metaphysical approach. Douglas has argued that Spinoza took seriously Descartes' argument for God's superabundant power (see Douglas 2015). Cristina Santinelli (2000) has also stressed Spinoza's engagement with Descartes' physics.

From a physical perspective, Spinoza accepted many premises of Descartes's physics: the impossibility of vacuum, the identification between extension and matter and a reductionist mechanistic view in which substantial forms are only a "childish and frivolous doctrine" (Letter 13). Furthermore, he accepted many of Descartes' laws of motion (see Letter 32). Consequently, Alexandre Koyré has stressed a continuity between Spinoza's and Descartes' account of extension,⁶⁷ although Spinoza, as I will show, clearly departed from Descartes' account of extension in respect to some key issue, such as its divisibility. It is difficult to establish whether Descartes's *The World* have played any role in Spinoza's metaphysical cosmology. Indeed, it was only published in 1662 and not present in Spinoza's library. Furthermore, Descartes conceived of the world as indeterminately extended⁶⁸, while Spinoza affirmed the infinity of extension which appeared as a kind of infinite substantial space. Now, Descartes's reluctance to affirm the infinity of the world might be interpreted as a

⁶⁷ "I need not insist on Spinoza who, though he denied the existence of void space and maintained the Cartesian identification of extension and matter, carefully distinguishes between extension, as given to the senses and represented by the imagination, and extension as perceived by the understanding - the former, being divisible and movable (and corresponding to the Cartesian indefinitely extended world), constituting the sempiternal many-fold of ever-changing and finite modi, the latter, truly and fully infinite and therefore indivisible, constituting the eternal and essential attribute of the *a se* and *per se* existing Being, that is, of God" (Koyré 1957, 155-56).

⁶⁸ See Descartes (AT XI 31; CSM I 90) and the letter to Chanut of 6 June 1647: "I do not say that the world is *infinite*, but only that it is *indefinite*. There is quite a notable difference between the two: for we cannot say that something is infinite without a reason to prove this such as we can give only in the case of God; but we can say that a thing is indefinite simply if we have no reason which proves that it has bounds. Now it seems to me that it is impossible to prove or even to conceive that there are bounds in the matter of which the world is composed. For when I examine, the nature of this matter I find it to consist merely in its having extension in length, breadth and depth, so that whatever has these three dimensions is a part of this matter; and there cannot be any completely empty space, that is, space containing no matter, because we cannot conceive such a space without conceiving in it these three dimensions and consequently matter. Now if we suppose the world to be finite, we are imagining that beyond its bounds there are some spaces which are three-dimensional and so not purely imaginary, as the philosophers' jargon has it. These spaces contain matter; and this matter cannot be anywhere but in the world, and this shows that the world extends beyond the bounds we had tried to assign to it. Having then no argument to prove, and not even being able to conceive, that the world has bounds, I call it *indefinite*. But I cannot deny on that account that there may be some reasons which are known to God though incomprehensible to me; that is why I do not say outright that it is *infinite*" (CSMK III 320).

mere epistemic issue, i.e. the impossibility to have a clear and distinct idea of the limits or infinite nature of the material world. However, it might also be connected with the metaphysical and theological features of a transcendent God. Descartes was still committed to the premises of a real distinction between God and the material world and to support it, he had to set apart God's infinite and perfect nature from the passive and inert matter which could only be conceived as indeterminate. From Spinoza's perspective, as I will show, this view involved many problems, such as God's action on the material world, insofar as the two are completely separated from each other.

It is important to notice that Spinoza's departure from Descartes' concept of extension was not only due to different metaphysical positions, but it is also connected to the metaphysical approach to scientific problems, in a broader sense, which Spinoza considered left unsolved by Descartes's system. As Lodewijk Meyer explains in the preface of Spinoza's *Principles of Cartesian Philosophy*, published in 1663, there are many aspects, such as the nature of the mind and body or their causal interaction, which are problematic in Descartes' philosophy. Meyer points out that:

All those things, and even many others more sublime and subtle, can not only be conceived clearly and distinctly, but also explained very satisfactorily provided only that the human Intellect is guided in the search for truth and knowledge of things along a different path from that which Descartes opened up and made smooth. The foundations of the sciences brought to light by Descartes, and the things he built on them, do not suffice to disentangle and solve all the very difficult problems that occur in Metaphysics. Different foundations are required, if we wish our intellect to rise to that pinnacle of knowledge (DPF, 230).

The attempt to provide a new metaphysical foundation for Descartes' natural philosophy is the main reason why other Cartesians harshly criticized Spinoza's philosophy. As Wiep Van Bunge (2001, 34-64) shows, many Dutch followers of Cartesian philosophy have hold a strict separation between physics and the theological

metaphysical issues. In the next chapter, I will analyze in details Spinoza's works in order to show which role have played the theological, scientific and physical issues in the development of his metaphysical cosmology. I will argue that Spinoza develops a mereological account of universe from his early writing to the *Ethics*. This view the result of Spinoza's engagement with different issues, such as the whole-parts relationship and order of nature in his novel account of extension as "infinite," "unique," "indivisible," and "eternal" instead of a certain mass of bodies consisting in parts, which are divisible, mutable and finite (EIp15s). However, Spinoza's cosmology, his knowledge of mechanical philosophy and his contribution to certain scientific problems can be understood only by acknowledging their metaphysical roots and ethical implications. This does not mean that he neglects or rejects an empirical approach within natural philosophy or physics, as it was often thought. Rather, Spinoza, following Descartes, retains that the metaphysics have to ground the possibility of any scientific investigation.

Chapter 2

The Development of an Account of the Universe

Spinoza's effort to reject the arguments against divine extension is deeply connected with the problem of the whole-parts relationship, as one can see in all his works. In the *Ethics*, Spinoza pointed out that the common understanding of quantity should be sought in human imagination and does not correspond to what quantity really is:

If someone should now ask why we are, by nature, so inclined to divide quantity, I shall answer that we conceive quantity in two ways: abstractly, or superficially, as we [NS: commonly] imagine it, or as substance, which is done by the intellect alone [NS: without the help of the imagination]. So if we attend to quantity as it is in the imagination, which we do often and more easily, it will be found to be finite, divisible, and composed of parts; but if we attend to it as it is in the intellect, and conceive it insofar as it is a substance, which happens [NS: seldom and] with great difficulty, then (as we have already sufficiently demonstrated) it will be found to be infinite, unique, and indivisible (EIp15s).

Human beings often conceive extension as composed of parts and, consequently, as divisible and a certain material mass. This leads to some paradoxes, since the parts of extension might be conceived as either finite or infinite. In the first case, one would have an infinite composed by finite things, while an infinite twice as large as the former in the second case (*ibid.*). This imaginative understanding of extension, which does not correspond to an adequate knowledge, rules out the possibility of attributing extension to God. Nevertheless, when human beings know the true nature of extension by intellect, they conceive of it without parts, but as infinite, unique and

indivisible. Indeed, extension is an attribute of God which is conceived through itself (EIp10) and is infinite in its kind (EIde6).⁶⁹

This distinction does not *prima facie* provide an exhaustive answer to the question about the true nature of matter from a metaphysical and physical point of view. Scholars have largely discussed Spinoza's view on the true features of extension. Recently, Allison Peterman has even argued that Spinoza refuses to conceive extension as tridimensional.⁷⁰ Spinoza's own account of extension presents a complex tangle of interconnected ontological, physical and epistemological issues which are relevant to shed light on his account of the universe.

In this chapter, I will investigate the development of Spinoza's account of the universe and its metaphysical status through a detailed analysis of the KV and of letters written until 1665. This investigation has a twofold aim: first, to show how Spinoza deals with different metaphysical, physical and theological issues, which are directly or indirectly connected with his attribution of extension to God. Second, I aim to stress a relevant conceptual and terminological development of Spinoza's notions of whole and parts. This will also bring to light the problem of the coexistence between universal and specific laws of nature. I will conclude that there is a "cosmological turn" in Letter 32, written in 1665, in which Spinoza provided a mereological understanding of the universe according to his idea of order and different natural laws.

⁶⁹ The distinction between "knowledge by imagination" and "knowledge by intellect" is a *leitmotiv* of Spinoza's theory of knowledge which will be broader investigated in this chapter.

⁷⁰ Peterman affirms that Spinoza "does not mean that this substance is extended in length, breadth and depth. In other words, substance is neither space nor something that takes up space" (Peterman 2015, 1). This interpretation rests on the assumption that Spinoza retains tridimensional space as intrinsically divisible. Even though Peterman might be right from a logical point of view, I rather agree with Tad Schmaltz (2020, 232-37) when he stressed that Spinoza's problem is not tridimensionality but a conception of a discontinuity in extension. As I will show, extension is not a conception of substantial parts but a spatial and ontological continuum in which parts can be conceived modally.

2.1. The Problem of Divine Extension and the Whole-Parts

Relationship in the KV

As I have sketched in the previous chapter, the main argument against divine extension consists in the relationship between the nature of matter, which is finite, passive and intrinsically divisible, and the nature of God, which is perfect, absolutely infinite and simple. To overcome this problem, in the KV Spinoza introduced the notions of parts and whole. He immediately reduced the notions of part and whole to “beings of reason” (KV, I, 2) which do not really exist in Nature. Furthermore, Spinoza seemed to exclude that extension should be conceived as a whole, since a whole depends on its parts. Instead, extension was conceived as an attribute of God and, consequently, “one cannot say of it that it has parts, since it cannot become smaller or larger, and no parts of it could be understood separately. For in its nature it must be infinite” (see KV, I, 2).

At first glance, Spinoza appeared to reject the argument against divine extension by denying the existence of parts in Nature. These notions appeared as the result of human effort to achieve some knowledge of the whole Nature. “Parts” and “wholes” are nothing but beings of reason which do not have any ontological foundation.⁷¹ However, a note added to this passage, offers a different perspective on the mereological problem:

In Nature, i.e., in substantial extension. For if this were divided, its nature and being would be destroyed at once, since it consists only in infinite extension, or what is the same, being a whole.

But, you will say, is there no part in extension prior to all its modes? None, I reply. But, you say, if there is motion in matter, it must be in a part of matter, not in the whole, since the whole is infinite. For in what direction would it be moved, since there is nothing outside it? Then in a part.

⁷¹ Here, Spinoza does not refer to a superficial knowledge of extension as in Letter 12 to Meyer or in the *Ethics*. I do not intend to investigate this problem from an epistemological perspective here, since it will be the object of the part of my dissertation.

I reply: there is no motion by itself, but only motion and rest together; and this is, and must be, in the whole; for there is no part in extension.

Despite the terminological imprecision concerning the identification between Nature, previously defined as consisting of infinite attributes, and substantial extension, which is in fact only one of the infinite attributes of Nature, it is relevant that here extension is conceived as indivisible, prior and independent to its parts. Furthermore, the infinite extension is called an “infinite whole” which is ontologically prior to its parts, as the modes ontologically depend on their substance. This passage introduces an account of whole-parts relationship according to which a whole does not depend on its parts. Finally, Spinoza used these notions to clarify the ontological relationship between extension and its modes.

This ontological conception of the whole-parts relationship, which differs from the definition of whole and parts as being of reason, is supported by the substance-modes relationship presented in the first appendix to the KV. Here, Spinoza affirms that “substance is, by its nature, prior to all its modifications” (KV, App Ia1) and that things are really distinguished only when they are conceived through different attributes (KV, App Ia3). Consequently, bodies, which are modifications of extension, can be distinguished only modally from each other, insofar as they are modifications of the same attributes. Although Spinoza does not explain this relationship in detail in the main body of the KV, the hypothesis of an ontological interpretation of the whole-parts relationship is strengthened by the example of the problem of motion. Spinoza argues that there is no motion in itself but only motion *and* rest together in the whole. In other words, motion, which is necessary to distinguish between different bodies, is not the effect of an external cause or of single parts. Instead, it should be conceived with rest together in the whole.⁷²

⁷² In Spinoza’s philosophy, rest has a specific ontological dimension, since it can produce certain effects. Consequently, rest does not seem to be conceived as

There are two main interpretative problems here. The first is that one finds two different notions of whole and parts.⁷³ The second is that Spinoza understands the whole-parts relationship in terms of the substance-modes relationship, but modes are not commonly conceived as parts. For instance, for Descartes they are “ways of expressing the essence of a thing” (Garber 1992, 69). Concerning the first problem, it is true that Spinoza did not explicitly distinguish between the whole and the parts as beings of reason, and as they corresponded to a specific ontological relationship. However, he affirmed in the main body of the KV that what is divisible never concerns substances but division “always and only [occurs] in the modes of substance” (*ibid.*). A clarification that follows from his explanation of whole and parts as beings of reason why the whole is commonly conceived as depending on its parts.

Spinoza’s argument in favor of divine extension suffers from the fragmented, not always straightforward, argumentative style and the coexistence of different positions which are not explicitly distinguished. Here, I will limit myself to clarify which are the implicit different positions with which Spinoza deal in the KV. Spinoza held two different conceptions of whole and parts in the KV: an epistemic one, in which parts are only *auxilium rationis* and do not correspond to anything in Nature, and an ontological one which is deeply related to Spinoza’s own account of God.⁷⁴ It is necessary to clarify the main ontological problem starting from an explanation of what a substantial part is. A substantial part is conceived as separable, really distinct and ontologically independent from other parts and the whole. This undermines any possibility to attribute extension to God, since God, as an infinite whole, would be ontologically dependent

simple absence of motion but as ontologically coexistent. The problem concerning this position are discussed by Sangiacomo (2013, p. 52).

⁷³ This problem cannot be overcome by focusing only on the main text and assuming that the note was written by somebody else, or that it is an excursus.

⁷⁴ This distinction is pointed out by Sangiacomo (2013). In his view, Spinoza does not reject the notions of part and whole as such. Rather, Sangiacomo highlights an epistemic use of whole and parts and an ontological foundation of a mereology in Nature (Sangiacomo 2013, 37-74).

from its parts, and the destruction of a part would imply the loss of a divine attribute. The ontological relationship between God – as extension – and things – as bodies – would be turned upside down, since extension would be conceived an intrinsically divisible whole consisting in and depending on many really distinct parts, and not vice versa. This would be a mutable whole, which might be diminished or increased through the addition or removal of parts. If extension is thus defined, Spinoza himself would admit, with the theologians, the impossibility of attributing such extension to God's eternal and perfect nature.

Although there is no passage in the KV where Spinoza referred explicitly to two different conceptions of whole and parts, it is important to notice that he never assumed that divisibility is an intrinsic feature of extension. Rather, he denied it by affirming that division only occurs in the modes of substance. The main question is how modal divisibility can be conceived only relatively to modes, without affecting extension. To explain it, Spinoza provided the example of water:

[...] concerning the parts in Nature, we say (as we said before) that division never occurs in the substance, but always and only in the modes of the substance. So if I want to divide water, I divide only the mode of the substance, not the substance itself; the substance is always the same, [though] now [it is the substance] of water, now [the substance] of something else.⁷⁵

[22] Division, then, or being acted on, always happens in the mode, as when we say that a man perishes, or is destroyed, that is only understood of the man insofar as he is a composite being and mode of substance, and not the substance itself on which he depends (KV, I, 21-22).

Division and destruction concern only water conceived as a certain modification of the substance. If one conceives the matter or substance of water, it results simple and indivisible. The mode of

⁷⁵ The same example is also offered in EIp15 to clarify the relationship between extension and the modifications of the substance.

water can be infinitely divided in parts or destroyed without any division or destruction of the substance itself. Extension is an infinite attribute of God which enables to understand God's essence. Consequently, it is not a collection of different parts, but an indivisible matter in which all bodies exist and on which depends.

In the KV, Spinoza left unanswered many questions about the ontological structure of Nature and the relationship between substance and modes.⁷⁶ Furthermore, it is unclear whether the whole-parts relationship is like a substance-modes relationship, or they differ under some aspects. Did Spinoza conceive of extension as an infinite whole which is prior to its parts? If so, is it enough to avoid that the modal divisibility undermines the simplicity of the whole? A clear answer to these questions is hard to find. What is important for the moment is that Spinoza here wanted to highlight a common mistake in conceiving bodies. They are usually called "substances" even though they cannot be conceived through themselves, i.e. their nature is not self-explanatory but they depend on something else from a conceptual point of view. Moreover, they cannot be really distinct from each other, since they are conceived through the same attribute, namely extension, and all modification with the same attributes can only be modally distinct (KV, AppIa3). But if all bodies are modes of the extended substance, as Spinoza's explanation of human beings clarifies (see KV, II, 2), how can they also be conceived as parts of the infinite extended whole? What does it mean that bodies are distinguished modally from a physical point of view? The answers to these questions seem to rely on the distinction between transitive and immanent cause presented in first dialogue of the KV.

⁷⁶ In Dialogue I of the KV Spinoza affirms "that infinite extension and thought, together with other infinite attributes (or as you would say substances) are nothing but modes of that unique, eternal, infinite Being, existing through itself; and of all these we make (as we have said) On Unique being or Unity, outside which one cannot imagine anything" (KV, I, DI, 75). The most puzzling aspect is not that Spinoza talks of many substances but the way he explains the relationship between God and the infinite attributes.

2.2. Order and Laws in God's Immanent Causation

Spinoza's account of immanence, namely his idea that God is the immanent cause of everything, is well-known. This distinction is also presented in the KV. While a transcendent cause is external, an immanent one is in the subject itself which produces effects in itself. God is conceived by Spinoza as the immanent cause of everything, since nothing is outside It. It acts in Itself and cannot be affected by any external cause. This implies that God is never passive because passivity comes always with external causation.

This account of immanent causation seems to have a twofold aim: first, it explains the causal implications of the identification between Nature and God; second, it brings to light the reason why matter is not intrinsically passive and, consequently, why it is consistent with God's perfect nature. Here, Spinoza provides another argument in favor of divine extension from a causal perspective. The idea of immanent causation is meant to bridge the gap between the unity of God and the multiplicity of particular things. Spinoza's explanation of the origin of motion in the second chapter of the KV rest on a conception of God as the immanent cause of everything:

The further objection may be made, however, that there must necessarily be a first cause which makes this body move; for when it is at rest, it cannot possibly move itself. And since it is clear that there is motion and rest in Nature, these must, they think, come from an external cause.

[27] But it is easy for us to answer this. For we grant that if body were a thing existing through itself, and had no other property than length, breadth, and depth, then if it really were at rest, there would be no cause in it for it to begin to move itself. But we have posited above that *Nature is a being of which all attributes are predicated*. This being so, nothing can be lacking to it to produce everything there is to produce (KV, I, 2).

The problem of the origin of motion depends on the fact that it cannot be produced by bodies themselves and, consequently, an external cause is always needed. Descartes attributed the role of a first

cause of motion to a transcendent God. For Spinoza, instead, this problem depended on the fact that philosophers have not clearly distinguished the nature of finite bodies from God's infinite one. According to Spinoza's demonstration of God's existence, there is nothing outside God and nothing is needed even though we attribute extension to It. Indeed, motion and rest have always been in Nature as an effect of God's infinite nature.⁷⁷ By paying attention to the twofold perspective provided by Spinoza the finite nature of bodies in contrast to the absolute infinite nature of God can be highlighted easily. Even assuming that a body is a finite substance – that which Spinoza denies – an external cause is required to begin the motion of bodies because their nature does not involve motion. By contrast, God's nature, which comes together with all attributes and an infinite power of acting, dispels every doubt about the origin of motion. There is nothing outside God but It produces all effects in Itself by virtue of an infinite power. Hence, motion and rest too are originated by God's power necessarily, i.e. they have always been in Nature.

The problem of motion leads to another fundamental metaphysical aspect concerning the order of Nature. One aspect of van Velthuysen's criticism was Spinoza's identification between God's *potentia absoluta* and *potentia ordinata* or, in other words, the fact that God necessarily produces all what It can produce.⁷⁸ As Alexander Douglas notices, Spinoza came to this conclusion from Descartes's idea that for God's self-caused existence relies on a superabundant power. This implies that God has not only the power

⁷⁷ I prefer to use the term effect even though Spinoza sometimes uses the term predication in the KV. In the mature works Spinoza tends using the notions of cause and effects, while it is problematic to clarify whether the use of predication correspond to a clear and precise terminological decision in the KV (Di Poppa 2009, 935-36).

⁷⁸ This becomes clearer when Spinoza addresses and explains what he calls his own understanding of different kind of causes and God's *propria*. God is a free cause which means that nothing outside can impede him to do what is able to do and, consequently, He necessarily produces everything because of his infinite nature and power of acting. For an overview of the different conceptions of God's power and the relationship between *potentia absoluta* und *ordinata* see Canziani, Granada and Zarka (2000). Since the same identification is in Bruno, scholars have suggested a possible influence on Spinoza of Bruno's philosophy (see Mignini 2007).

to bring Itself to existence but also that of producing any possible perfection (see Douglas 2015, 80-85). If for Descartes creation depended on God's free will, Spinoza brings the idea of a superabundant power to its extreme and to the most radical metaphysical and moral implications. Indeed, God's intellect and will are one and the same, so that It necessarily produces all the possible things. Indeed, it would be inconsistent with God's infinite power that It would not produce something, insofar as there is no external cause to limit this power or an internal reason for God's limiting Itself (see KV, I, 2).

Among the things that God necessarily produces there are also motion and rest. After dividing Nature into *Natura naturans*, i.e. God as "a being that we conceive clearly and distinctly through itself" (KV, I, 8), and *Natura naturata*, i.e. all things that immediately depend on God's nature or proceed from his immediate modifications, Spinoza clarifies that motion belong to this second one. It is a mode "which depend on God immediately" (KV, I, 8) and has "been from all eternity, and will remain to all eternity, immutable, that it is infinite in its kind, that it can neither exist nor be understood through itself, but only through extension" (KV, I, 9).⁷⁹

Spinoza's conception of extension clearly shows a metaphysical implications of God's necessary productions. This is not only a metaphysical statement but also displays Spinoza's metaphysical approach to specific physical questions. Although Spinoza affirms that an investigation of the nature of motion is matter for a physical treatise, his metaphysical foundation of motion is enough to exclude some physical hypotheses. Furthermore, it does not change only the understanding of God's attributes, but also undermines the moral

⁷⁹ These universal modes will correspond to what Spinoza defines as the immediate infinite mode in the *Ethics*. An interesting aspect of this passage of the KV is that Spinoza points out the necessity of an ontological foundation of motion as an infinite mode of extension before any natural investigation. This confirms the idea that each knowledge of the material world cannot apart from the knowledge of the highest things, i.e. of God's nature, and consequently, the metaphysics cannot be left aside in physics.

foundation of specific natural views, such as the possibility of recognizing God's purposes through the laws of Nature.

Spinoza does not offer a consistent and thorough picture of the universe, but one might find some clues of what I have called his "metaphysical cosmology" in his theory of divine providence. Providence is defined as a *proprium* which should be distinguished from God's attributes. While attributes offer an understanding of what God is, *propria* "do not give us any knowledge of what he is" (see KV, I, 2). Rather, they are "like adjectives, which requires *Substantives* in order to be explained" even though are usually called attributes (see KVI, 1, note e). Extension is more deeply related to God's nature than his *propria* which necessarily come with God's essence but not as a constitutive part of it. In brief, Spinoza's account of God's providence concerns the key issue of the coexistence between the power of universal and particular things, between the nature of the whole and that of its parts:

The second 'attribute' which we call a *Proprium* is Providence, which according to us is nothing but that striving we find both in the whole of Nature and in particular things, tending to maintain and preserve their being. For it is evident that nothing, through its own nature, could strive for its own destruction, but that on the contrary, each thing in itself has a striving to preserve itself in its state, and bring itself to a better one.

[2] So according to this definition of ours, we posit a universal and a particular Providence. The universal is that through which each thing is produced and maintained insofar as it is a part of the whole of Nature. The particular Providence is that striving which each particular thing has for the preservation of its being insofar as it is considered not as a part of Nature, but as a whole.

This may be explained by the following example. All man's limbs are provided and cared for, insofar as they are parts of man: That is universal providence. The particular is that striving that each particular limb (as a whole, not as a part of man) has to preserve and maintain its own well-being (KV, I, 5).

Spinoza's explanation of God's Providence presents a puzzling interconnection of metaphysical, cosmological and ethical issues. He did not only talk of a striving of each thing for self-preservation, but also for bringing "itself to a better" state. If the assumption that nothing in Nature strives for a self-destruction was well-accepted, the reference to striving for improving the natural condition appears as a teleological statement. On the one hand, Spinoza affirmed that all things act in a way that help preserve the whole of Nature. On the other hand, there is a particular teleological striving intrinsic to the nature of things.⁸⁰ Consequently, one might ask whether the particular providence of each thing corresponds to the universal one, or how they can be distinguished without coming in conflict to each other. The example of the limb discussed in the quotation above does not solve the interpretative difficulties. Should the particular providence be subsumed from the universal one as particulars are subsumed from universal? How does the particular striving of a thing fit in the universal one, when there is an opposition among these particular strivings? How is it possible to make this distinction, insofar as God is the cause of everything?

In this passage are summarized many problems concerning the relationship between the infinite Nature and the finite things. It is hard to see how Spinoza meant to bring in agreement the universal and individual things' way of acting within the foundation of an ontological homogenous Nature. The definition of God's Providence presents an ontological and cosmological problem in the KV, namely the understanding of the coexistence of a universal order of nature with the way of acting of particular things. From a physical point of view, it appears evident that this problem and that of the ontological

⁸⁰ There is disagreement among scholars about the notion of *conatus* here. Indeed, Scribano (2012) has pointed out that Spinoza never used the word *conatus* in the KV and his explanation of particular providence largely differs from that of *conatus* in the *Ethics* in which it is defined as "the actual essence of the thing." (EIIIp7) Instead, Sangiacomo considered that the explanation of providence in the KV correspond to a first assumption of the concept of conatus which will be fully developed only in the mature works in which assumes the novel Spinozistic meaning (Sangiacomo 2013, 66-74).

status of motion are deeply related, insofar as physical bodies are distinguished through motion which immediately depend on God.

The way of acting of things seems to be regulated according to a universal striving of all parts for preserving the whole Nature. However, all these parts also strive for their own self-preservation and even for improving their own wellbeing as if they were independent of each other. On the one hand, a top-down interpretation would reduce all strivings to a general one without clarifying how one might recognize a particular providence in the actions of all things, and conceive these things as an independent whole. On the other hand, a bottom-up interpretation would present the same problems of the notions of whole and parts, insofar as particular providences might be opposed to each other or understood independently from the universal one.⁸¹ In order to clarify Spinoza's view it is useful to consider Spinoza's own distinction between divine and human laws as formulated in the second part of the KV.

[...] God does not give man laws in order to reward him when he fulfills them. To put it more clearly, God's laws are not of such a nature that they could ever be transgressed. For the rules that God has established in Nature, according to which all things come to be and endure -if we want to call them laws- are such that they can never be transgressed. E.g., that the weakest must yield to the strongest, that no cause can produce more than it has in itself, etc., are of such a kind that they never change, never begin, but that everything is disposed and ordered under them.

⁸¹ The tension between universal and particular providence is rightly stressed by Sangiacomo (2013, 69-74). The distinction between a top-down and bottom-up views of laws has been presented by Ott (2009) and it is particularly useful to highlight the problem of this passage of the KV. He claimed a "top-down" view is characterized by the fact that all natural process are regulated by universal laws and these laws "are not fixed by the natures of the objects they govern; both their status and their content depend not on created beings but on God" (Ott. 2009, 5). Instead, a bottom-up view "holds that the course of nature is fixed by the properties of created beings" and "laws of nature will then be nothing more than convenient ways to state relations among these properties" (*ibid.*). These two kinds of views are not inconsistent with each other and can also come together in authors such as Boyle (*ibid.*).

To say something about them briefly, all laws that cannot be transgressed are divine laws. For whatever happens is, not contrary to, but according to his own decree. All laws that can be transgressed are human laws. For everything that man decides for his own well-being is not necessarily for the well-being of the whole of Nature also. On the contrary, it may be destructive of many other things (KV, II, 5).

Even though Spinoza talks of “God’s decree,” divine laws are clearly stripped from any intentionality and voluntarism. Indeed, God necessarily produces all that It is able to produce. Divine laws are not the result of a free choice and cannot undergo any change. Rather, they are eternal and cannot be transgressed since they show God’s necessary and infinite ways of acting. In other words, divine laws are not normative as if God were a kind of ruler who can impose his will. They are necessary, eternal and cannot be suspended or changed even as a matter of principle for Spinoza. The use of the term “law” turns out to be the result of a terminological convention which is useful only if this kind of law is distinguished from other kinds such as human ones. Human laws are not characterized by the same necessity of divine laws, since they do not aim to the well-being of the whole nature but only of humans. In a nutshell, Spinoza clearly underlines the priority of divine laws with respect to human particular laws. Therefore, he affirms that these latter “are destroyed” when they come into conflict with the more powerful divine laws (KV II, 6).

Spinoza’s thesis establishes the priority of divine and universal laws with respect to particular laws. However, the existence of particular laws is not *excluded*; rather, they are subordinated to the divine law, and this seems to be functional to the production of all possible effects in Nature:

For example, bees, in all their work, and in the order they maintain among themselves, have no other end in view than to provide a certain supply for the winter. [...] So also man, as a particular thing, has no further purpose than his limited essence can attain; but as a part and instrument of the whole of Nature, this end of his

cannot be the ultimate end of Nature, because it is infinite and must use man, along with all other things, as its instrument (KV, II, 24, 6).

All things, including human beings, act in function of production of all possible things according to God's nature. If this confirms that human actions are always conceived within God's infinite production of effects, it is unclear why Spinoza posits a difference between universal and particular laws. Is this only a terminological convention, or does this distinction serve to clarify the varying production of effects in Nature? An evident answer to this question cannot be found in the KV, since Spinoza never clarified what makes possible to conceive a thing as a whole rather than a part of Nature. He only assumed that a human being can know the two kinds of laws by the intellect, "one produced by the community he has with God, the other by the community he has with the modes of Nature. Of these, the one is necessary, the other not" (KV II, 24, 7-8). In other words, laws that depend on being a mode of God and others that follow from the connection with other modes.

In conclusion, the denial of the intrinsic divisibility of extension leads Spinoza to face the problem of the nature of whole and parts in Nature. The KV leaves open the possibility of a mereological conception of the whole the material world in which all things, including human beings, act in a certain way as part of the whole Nature. However, Spinoza's argument does not solve the logical and ontological problem of the whole-parts relationship. There are many interpretative difficulties to understand what Spinoza's modal distinction consists in, and which kind of existence should be attributed to each part of Nature.

2.3. The Substance-Modes Relationship in Spinoza's Early Correspondence

From 1661 to 1665 Spinoza worked intensively at the clarification of conceptual pairs, such as substance-modes, infinite-finite, whole-

parts. All these notions play a fundamental role for understanding Spinoza's account of the universe and his "metaphysical cosmology". The *Correspondence* of the years 1661 to 1665 offers a clear overview of the development of his thought. Spinoza's *corpus* of these years consists of many letters to Oldenburg and Boyle concerning metaphysical and scientific issues, other to his closer friends, De Vries and Meyer, and the theological exchange about good and evil, sin and prize with Willem van Blijenbergh. Furthermore, Spinoza published his KV *of Cartesian Philosophy*, namely an exposition *more geometrico* of Descartes's *Principia philosophiae*, in 1663.⁸² For the aim of my study, it is enough to stick to an analysis of the few aspects of Spinoza's conceptual development until Letter 32 written to Oldenburg in 1665. In particular, my overall goal is to stress the conceptual, contextual and terminological issues that led Spinoza to offer a clear account of the universe in terms of whole-parts relationship in 1665.

As I have shown, the substance-mode relationship is explicitly presented in first appendix of the KV and is taken for granted in the main body of the work. In the *Correspondence* one might find definitions and axioms which enable to see how Spinoza developed these concepts:

For by Substance I understand what is conceived through itself and in itself, i.e., that whose concept does not involve the concept of another thing; but by modification, *or* Accident, what is in another and is conceived through what it is in. From this it is clear that:

[A1] Substance is by nature prior to its Accidents, for without it, they can neither be nor be conceived.

[A2] Except for Substances and Accidents, nothing exists in reality, or outside the intellect, for whatever there is, is conceived either through itself or through another, and its concept either does or does not involve the concept of another thing,

⁸² It is also certain that Spinoza started working on the *Ethics* even though it is impossible to know which parts he wrote during these years.

[A3] Things which have different attributes have nothing in common with one another, for I have explained that an attribute is that whose concept does not involve the concept of another thing (Letter 4).

There are some differences that can easily be noticed through a comparison with the KV. First of all, the definitions are missing in this latter and its appendices. Furthermore, the use of the term 'accident' instead of "mode" is surprising, insofar as Spinoza was already familiar with Descartes' terminology at that time.⁸³ However, the notion of accident does not seem to be used systematically but only occasionally here and in Spinoza's *corpus*.

It is important to notice that the definitions and axioms highlight the relevance of the asymmetrical relationship between what is conceived in itself and what is conceived in other. In fact, it is explicitly stated that bodies cannot be conceived as independent substances but only as modifications because of their conceptual and ontological dependence. Spinoza's use of the substance-modes relationship reveals his different philosophical position in comparison to Oldenburg even though the definitions themselves are not novel.⁸⁴ Indeed, Oldenburg objected that two human beings are two substances of the same attributes and, consequently, it is doubtful that a substance "cannot be produced, not even by another substance" (Letter 3). He also denied that things with different attributes cannot

⁸³ The first axiom largely corresponds to that in the first appendix of the KV with the addition of the Aristotelian term. It is likely that this ambiguity is due to the fact that Spinoza aims to clarify his general philosophical position in a way that it is easily understandable to his interlocutors. Since Oldenburg was already struggling with the definition of God, substance and attributes, Spinoza might have decided to use the well-known notion of accident instead of the Cartesian one. Indeed, Spinoza was aware of the reasons of Oldenburg's struggling with his definition and axiom: "As for your contention that God has nothing formally in common with created things, etc., I have maintained the complete opposite of this in my definition. For I have said that God is a Being consisting of infinite attributes, of which each is infinite, or supremely perfect in its kind" (Letter 4). It might also testify a metaphysical ambiguity in Spinoza's early account of God caused by the influence of the Aristotelian theory of inherence.

⁸⁴ The distinction between what is in itself and what is in another thing can be sought in the Aristotelian tradition. Consequently, John Carriero has related Spinoza's substance-modes relationship to the Aristotelian substance-accident one (see Carriero 1995). This clearly shows that Spinoza's definition and axioms are often not novel in their formulation, regardless their uses and consequences.

have any causal relationship, since God “has nothing formally in common with created things” (*ibid.*).

The existence of many things is a matter of fact that Spinoza did not deny. Rather, he denied that these many things corresponded to many different substances. Oldenburg’s question to Spinoza was to explain the origin of the things if they cannot be produced by each other. A question which inevitably brought to light that it is not only the odd terminology which prevents Oldenburg from understanding Spinoza’s argument, but different opinions concerning God’s production of things. Spinoza clarifies that:

[..] men are not created [*creari*], but only generated [*generari*], and that their bodies already existed before, though formed differently. It may, indeed, be inferred, as I cheerfully acknowledge, that if one part of matter were annihilated, the whole of Extension would also vanish at the same time (Letter 4).

The distinction between creation (*creatio*) and generation (*generatio*) can also be found in the KV when Spinoza argues for the infinite nature of substances. In a note added to his argument in favor of the infinite substance, Spinoza explains that “*creating*, then, is bringing a thing about *as regards essence and existence together*; but in *generating* a thing comes about *as regards existence only*. Therefore, there is no creating in Nature, but only generating” (KV, I, 2, 67). Here, Spinoza was clearly taking a stand in the debate concerning God’s creation of essences and eternal truths.⁸⁵ Furthermore, Spinoza established a relation between this issue and the way bodies exist in God’s attribute of extension.

The debate over God’s creation of the eternal truths focused on the question whether both essence and existence depend on God’s free choice or whether they have a necessary existence independent of God’s will. While God’s creation in the Christian tradition was related only to the existence of things, Descartes argued that this would undermine God’s omnipotence. Indeed, God’s infinite power

⁸⁵ This is even more evident in his *Cogitata Metaphysica* included in his *Principles of Cartesian Philosophy* (see Spinoza 1990).

implied that God could also have created the essences of things differently.⁸⁶ Essences and eternal truths cannot have any intrinsic necessary existence independent of God's will.

Spinoza's distinction between creating and generating cannot be reduced neither to Descartes' one nor to the Christian one. On the one hand, Spinoza accepts Descartes' idea of God's superabundant power and that God necessarily produces the essences of things too. These essences are not independent of God's nature, but can only exist in or be conceived through God. On the other hand, the creation of essences and existences does not depend on God's free choice, as Descartes argued, but follows from God's infinite nature and the necessity of its production of all possible things. When Spinoza affirmed in Letter 4 that human bodies are generated and not created, he departed from Descartes' idea of a divine act of will. This was due to the closer relationship that characterizes God and the material world, as we have seen in the KV. Spinoza established a necessary relationship between God's essence and the production all things, both essences and existence. In other words, God's generation of things means that all things necessarily follow from God and depend on It.⁸⁷

Coming back to Spinoza's argument of Letter 4, it becomes clear the huge distance between Oldenburg's idea of divine creation and Spinoza's idea of a generation of all things in nature. Bodies are not substantial parts or substances, as Oldenburg thought, which can be separated from each other, created or destroyed, but are in fact modifications of extension which inevitably depend on God. This means that the essence and existence of bodies are already implied in

⁸⁶ A famous example is Descartes' argument that God could have decided that two plus one was not three. This argument has relevant epistemological consequences, such as the question how human beings can know eternal truths if God can change such truths anytime. In Descartes' view, God does not change essences and eternal truths after he has created them because of his immutability. For an in-depth investigation of this issue see Scribano (1988, 83-150) and Landucci (1980, 233-281).

⁸⁷ As Emanuela Scribano has pointed out, Spinoza rejected with Descartes to subordinate God to the fate, but established a closer link between God and the material world maintaining with Descartes God's simplicity (Scribano 1988, 107).

God's attribute of extension. As Spinoza affirmed without further clarification, bodies exist before but are, as he vaguely posits, "formed differently" in God's attribute of extension.

The roots of the generation of all bodies should be sought in the necessity of God's action and in the ontological priority of the attributes over its modifications. Furthermore, the issue of the relationship between the essences of bodies and their actual existence is here at stake, even though Spinoza does not talk about formal and actual essences yet. The problem of the relationship between formal and actual essence has haunted scholars as so far.⁸⁸ Here, I will just clarify the importance of the asymmetrical relationship between attribute and modifications of God. This issue is discussed from the point of view of the attribute of thought in Letter 8 sent by Simon de Vries to Spinoza in 1663. Here, de Vries reports the confusion of Spinoza's friends who hardly understands how to apply his third definition:

Next, the third definition is not sufficiently clear to us. As an example, I reported what you, Sir, said to me at The Hague, that a Thing can be considered in two ways, either as it is in itself or as it has a relation to something else. For example, the intellect can be considered either under thought or as consisting of ideas. But we do not see clearly what this distinction would be. For we think that if we conceive thought rightly, we must comprehend it in relation to ideas, since if all ideas were removed from it, we would destroy thought itself. So since the example is not clear enough to us, the thing itself still remains somewhat obscure, and we require further explanation.

⁸⁸ In particular, EIIp8 is one of the most controversial passages of Spinoza's *corpus*, since he posits the idea that "the formal essences of singular things, or modes, are contained in God's attribute" (EIIp8). This seems to imply the existence of two different ontological levels: the eternal one in the attributes of God and the actual existence of things. However, such interpretation seems to imply a gap between two different levels of existence which some scholars consider unacceptable in Spinoza's account of immanence (see Morfino 2016b). This issue involves many controversial aspects of Spinoza's philosophy, such as the distinction between formal and actual essence of a thing or between the existence *sub specie aeternitatis* or in duration etc.

There are three issues at stake here. First, the question of the nature of thought. Second, the existence of two ways of conceiving the intellect. Third, a clarification of the relationship between the attribute of thought and ideas. As reported by de Vries, when the circle of Spinoza's friends, who were discussing the manuscript of the *Ethics* together, tried to figure out how the intellect should be conceived rightly, they identified it with the attribute of thought which is presented as a collection of ideas and depending on them. In his answer, Spinoza underlined the difference between God's attributes and his modifications. For Spinoza, by confusing thought with the intellect, namely an attribute with an infinite mode which pertains to *Natura naturata*, they failed to understand the ontological and conceptual difference between thought and ideas. Now, Spinoza's technical terminology did not seem to be immediately clear also for amenable interlocutors as de Vries. Spinoza himself noticed by reporting his definition of substance and attributes that his friends failed to understand his own concepts:

By substance I understand what is in itself and is conceived through itself, i.e., whose concept does not involve the concept of another thing. I understand the same by attribute, except that it is called attribute in relation to the intellect, which attributes such and such a definite nature to substance (Letter 9).⁸⁹

De Vries' erroneous understanding of thought, as ontologically dependent on ideas, is clearly determined by a misunderstanding of what attributes really are. The third definition, reported above, only presents the ontological relationship between substance and attribute, i.e., of things that can be conceived through themselves,⁹⁰ and not between what is in itself and what is not.

⁸⁹ Here, we have the first textual evidence of a clear distinction between substance and attributes.

⁹⁰ An in-depth investigation of the relationship between substance and the attributes would take my discussion too far, since it concerns ontological aspects of Spinoza's thought on which there is disagreement among scholars. Such aspects are for instance the objective or subjective dimension of attributes, and the distinction established between substance and attributes that De Vries himself presented as a major problem for future interpreters. Does an attribute constitute a substance in the

If De Vries's doubts about the draft of the *Ethics* might be the result of a misunderstanding, it is also evident that Spinoza's different conceptual distinctions presented many difficulties to his contemporaries in the light of his identification between God and Nature. On the one hand, Spinoza's definitions, such as those of substance, attributes and modes, do not appear innovative but surely looked familiar to those who were familiar with Descartes' real, modal and distinction by reason.⁹¹ On the other hand, Spinoza's ontological frameworks, in which nothing exists outside God, leads to radically different conclusions. For instance, when Spinoza affirms that attributes are really distinct from each other, de Vries assumes that the existence of many substances can be inferred from this distinction (see Letter 8). A conclusion perfectly understandable in the light of Descartes' explanation of what real distinction consists in, and that Spinoza himself will explain in his *Principles of Cartesian Philosophy*. This usually concerns the relationship between different substances, such as the body and the mind, or between different bodies, which can clearly be conceived without the other. But for Spinoza the real distinction is not a sufficient reason to conclude that two different things exist independently of each other.⁹² Instead, Spinoza's proof of the existence of God shows that only one substance exists, and that it has infinite attributes.

Consequently, the confusion of Spinoza's friends seems to depend on two interconnected aspects: first, the similarity between

sense that they composed it somehow in different ways or is there only a distinction of reason among substance and attributes? Are the attributes only conceived as really distinct or do they exist also as really distinct from each other? All these questions have been addressed by scholars from historical, logical and metaphysical perspectives. For an overview, see Van Bunge (2012, 17-34).

⁹¹ For instance, the asymmetrical relationship between substance and accidents recalls Descartes's modal distinction which is recognized "from the fact that we can clearly perceive a substance apart from the mode which we say differs from it, whereas we cannot, conversely, understand the mode apart from the substance" (AT VIIIA 29, CSM I 214).

⁹² An overview of Descartes' distinction can be found in Perler (2016). Moreover, Spinoza provides his own explanation of Descartes' different kind of distinctions in his *Principles of Cartesian Philosophy*. Noa Shein (2009) has shown the importance of a correct understanding of Spinoza's use of different distinctions to solve the dichotomy between a subjective and objective reading of attributes in the *Ethics*.

Spinoza's and Descartes' terminologies brings the friends to draw certain conclusions beyond Spinoza's own intentions, such as the fact that a real distinction implies the knowledge of different substances; second, the function of Spinoza's definition, in particular the definition of God, is puzzling to his interlocutors.⁹³ It is important to notice that Spinoza's effort to clarify his own position reveals some intrinsic tensions and ambiguity when his interlocutors try to understand the thesis of the unity of the infinite attributes of God. Spinoza struggles to provide an explanation of how different real distinct attributes can fit in with the existence of a unique substance. A difficulty that will accompany his philosophy after his death, as one might easily notice from the criticism of his ontological proof provided by his contemporaries.⁹⁴

2.4. Substantial and Modal Infinite(s)

The problem of the consistency of the unity of Nature with the existence of many different things characterizes Spinoza's philosophical effort from his early writings to his mature ones. The possibility to discern⁹⁵ finite things within a continuous material world instead of a discontinuous unity of different substances requires a further clarification of the substance-modes relationship. Letter 12 to Lodewijk Meyer, written in 1663, offers a clear overview of the

⁹³ Oldenburg as well as de Vries asked for a clarification about the nature of definitions and their role in Spinoza's ontological proof (see Letter 3 and Letter 8). In particular, De Vries's first question concerned the nature of Spinoza's definition and inspired the opinions of other authors on this matter. Spinoza answered by distinguishing between different kinds of definition: "One which serves to explain a thing whose essence only is sought as the only thing there is doubt about, and one which is proposed only to be examined. For because the former has a determinate object, it ought to be true. But the latter does not require this" (Letter 9).

⁹⁴ A brief historical overview of the debate concerning the relationship between the unique substances and infinite attributes is offered by Van Bunge (2012, 17-34).

⁹⁵ With the term "discern" I want to refer to the possibility of conceiving things differently without separating them, as if they were independent of each other. Indeed, Spinoza did not intend to argue, in my opinion, that different things does not exist in Nature. Rather, he argued for the existence of one absolute infinite substance and that all these things have the same ontological foundation. However, this raises the problem of understanding on which level different things can be distinguished from each other.

conceptual complexity concerning the problem of the infinite in Spinoza's philosophy, but also an understanding of key ontological distinctions which are necessary to clarify the metaphysical roots of Spinoza's cosmology. While discussing the problem of the nature of the infinite Spinoza affirms that we should recognize the existence of many different kinds of infinite:

Everyone has always found the problem of the Infinite very difficult, indeed insoluble. This is because they have not distinguished between what is infinite as a consequence of its own nature, or by the force of its definition, and what has no bounds, not indeed by the force of its essence, but by the force of its cause. And also because they have not distinguished between what is called infinite because it has no limits and that whose parts we cannot explain or equate [NS: determine or express] with any number, though we know its maximum and minimum [NS, LC: or it is determined]. Finally, they have not distinguished between what we can only understand, but not imagine, and what we can also imagine (*Letter 12*, I, 201).

It is important to notice that the premise for distinguishing these different kinds of infinite is an adequate understanding of four interconnected concepts: "substance," "mode," "eternity," and "duration." The infinite of the substance is absolute according to its definition which implies that it is impossible to conceive it as divisible. Instead, the being infinite of modes is not deduced by its definition but depends on its cause. Consequently, the definition of modes admits the possible of being divided. Moreover, one might conceive different kinds of infinite by means of imagination and intellect. It is evident that the problem of the infinite concerns both ontological and epistemological aspects of Spinoza's philosophy.

Here, it is enough to focus on some passages which help clarify the connection between the asymmetrical relationship of substance and modes and the ontological status of whole and parts at this stage of Spinoza's thought development. A careful analysis of all kinds of infinite in *Letter 12* is provided by Martial Gueroult (1968, 500-528).

Gueroult recognized three different couples of opposite kinds of infinite: 1) things infinite by virtue of their definition and that by virtue of their causes; 2) things infinite because of the absence of limits and the infinite which characterizes some mathematical object; 3) things representable only by means of the intellect and other by means of both the imagination and the intellect. These couples can be further divided in other couples. The first two kinds of infinite rely on the definitions of substance and modes, and their asymmetrical relationship. The concepts of substance and modes turn out to fit in with two different kinds of infinite: from the definition of substance it follows that the substance necessarily exists as infinite, while existence is not involved in the definition of the modes which can be infinite only “by the force of the cause in which they inhere” (*Letter 12*, I, 205). To this conceptual pair are also related the definitions of the concepts of eternity, i.e. infinite existence, and that of duration, which is an undetermined existence. This connection emerges clearly from the following passage:

From all this it is clear that when we attend only to the essence of Modes (as very often happens), and not to the order of Nature, we can determine as we please their existence and Duration, conceive it as greater or less, and divide it into parts-without thereby destroying in any way the concept we have of them. But since we can conceive Eternity and Substance only as infinite, they can undergo none of these without our destroying at the same time the concept we have of them (*Letter 12*, I, 202).

These two different ways of conceiving the nature of things recalls the question concerning the reality of the modal distinction among parts sketched in the KV. Now, the common conception of the extended substances, as a whole consisting of parts or with a certain duration, contradicts the very concept of substance. This understanding of extension depends on conceiving the extended substance “either abstractly, *or* superficially, as we have it in the imagination with the aid of the senses”, instead of “as a substance, which is done by the intellect alone” (*Letter 12*, I, 202).

However, it is important to notice that the notions of part and whole are not defined anymore in this letter, as Spinoza did in the KV, as beings of reason, and the mereological problem cannot be reduced to a mere epistemological one. While Spinoza defines measure, time and number as beings of reason, the notions of whole and parts have a different ontological status. Furthermore, the possibility to determine “as we please” the existence of modes in different ways without contradicting its concept, as long as the order of Nature is neglected, refers to the fact that not only the existence of modes, but also how they are determined to exist follows from God’s essence necessarily. Modes necessarily exist and act as they do because of the necessity of God’s production of all things. But the nature of modes enables to determine as “we please” their way of existing as long as one neglects the fact that God’s production is necessarily as it is, i.e. the order of Nature and the connection of all causes that determined necessarily its way of existing.

Letter 12 does not tell us much about Spinoza’s concept of order of Nature. The only thing that can be deduced is the connection between this concept and God’s necessary production of effects. *Letter 12* clarifies many key aspects of Spinoza’s metaphysics, especially the issue of the order of Nature, insofar as the problem of the infinite underlines the kind of necessity which characterizes the *Natura naturata*. Spinoza highlights three aspects here: first, he rejects once again the conception of the extended substance as a collection of really distinct parts or bodies starting from the definition of substance. The concept of substance implies a necessary existence and a conceptual independence which does not fit in with the concepts of duration and divisibility; second, the asymmetrical substance-modes relationship stresses that all modes, including the infinite, exist by means of an external cause and are not self-caused; third, the infinite modes can be divided in parts without contradiction:

For then they would have understood clearly what kind of Infinite cannot be divided into any parts, or cannot have any parts, and what kind of Infinite can, on the other hand, be divided into parts

without contradiction. They would also have understood what kind of Infinite can be conceived to be greater than another Infinite, without any contradiction, and what kind cannot be so conceived (*Letter 12*, I, 201).

Modes do not exist in themselves but depends on the solely existing substance. Their existence receives an ontological foundation from this relationship. Spinoza often uses the terms “modes,” “parts,” and “bodies” as interchangeable. Consequently, it is necessary to focus on the context in which this interchangeability takes place. As we have seen in the KV, the concept of mode is posited in opposition to, and not as synonymous of, the concept of substantial parts, viz. parts independent of each other and separable from the whole. Instead, the concept of mode often seems to be close with the idea that each thing is a modal part of the whole Nature and necessary connected with all others.

As a matter of fact, the relationship between substance and modes does not correspond to the whole-parts relationship completely. Spinoza’s analysis of the infinite brings to light the possibility to use the terms of whole and parts in relation to modes without undermining the unity of Nature. A lexical clarification of conceptual pair whole and parts or their interconnection with the substance-modes relationship is only sketched by Spinoza until 1665. A broader exposition of this issue is provided by Spinoza in *Letter 32* written in 1665. Here, Spinoza answers Oldenburg’s and Boyle’s question “concerning our knowledge of how each part of Nature agrees with its whole and in what way it agrees with other things” (*Letter 31*). This is a turning point in Spinoza’s development of a metaphysical cosmology, since he provides a description of the universe in terms of whole-parts relationship. This universe does not correspond to the substance itself even though it is infinite and the motion of its parts depends on its laws.

2.5 The Universe as a Modal Infinite Whole

In *Letter 32* to Oldenburg written in 1665, Spinoza provides an account of universe as an infinite whole which differs from the unique substance, insofar as it, in the words of Tad Schmaltz, “is real albeit derivative – that is, *modal* – feature of the world” (Schmaltz 2020, 236). Indeed, this account of the universe depends on God’s nature and infinite power and cannot be understood by abstracting from particular and finite things. Spinoza’s universe appears as a scale of different degrees which correspond to different ways of producing effects, and that enable to conceive things as parts of the whole Nature and as a whole at the same time. Spinoza sees a connection between the infinite power of God and the infinite variations in the universe, which testifies the ontological foundation of the whole-parts relationship based on the idea of immanent causation. Finally, the infinite whole is not only a way of expressing God’s infinite power in the attribute of extension but the same whole can be found in the attributes of thought.

The incipit for the explanation of this account of universe is the issue of the agreement among parts and of each part with the whole Nature. Spinoza’s effort to explain this worldview shows a mereological description of the universe which encompasses ontological, epistemological, cosmological and ethical aspects of his philosophy. Indeed, the starting point of this discussion is Spinoza’s philosophical and ethical approach presented in *Letter 30*, written at the beginning of the English-Dutch war in 1665:

But these turmoils move me, neither to laughter nor even to tears, but to philosophizing and to observing human nature better. For *I do not think it right for me to mock nature, much less to lament it, when I reflect that men, like all other things, are only a part of nature, and that I do not know how each part of nature agrees [convenient] with the whole to which it belongs, and how it coheres with the other parts.* And I find, simply from the lack of this knowledge, that certain things in nature, which I perceive in part and only in a mutilated way, and which do not agree at all

with our philosophic mind, previously seemed to me vain, disorderly and absurd, whereas now I permit each to live according to his own mentality. Surely those who wish to die for their good may do so, so long as I am allowed to live for the true good (*Letter 30*, my emphasis).

The attempts to undermine an anthropomorphic conception of Nature, to avoid a moralistic judgment of human behavior, and to reject the idea of human beings as an *imperium in imperio* are leitmotifs of Spinoza's philosophy throughout his production. The correspondence with van Blijenbergh testifies how these ontological-metaphysical issues are deeply connected with ethical ones.⁹⁶ Only providing a different, adequate conception of Nature human beings are able to understand their condition, i.e. their being only a part of Nature, and to act in a different, more adequate, way.⁹⁷ Hence, Spinoza's effort to offer a novel philosophical and ethical perspective, which might help human beings to progress towards a higher degree of freedom, concerns the possibility of an understanding of the relationship between human beings and the whole Nature. A goal that can be found throughout the *Ethics* as well as Spinoza's political works.

The variety of different themes sketched in *Letter 32* offers a unique case of study to analyze Spinoza's "mereological turn" and its metaphysical cosmology. This mereological turn consist in neglecting a definition of parts and whole as being of reason for stressing their ontological and conceptual role in the understanding the whole universe. Furthermore, Spinoza introduces, as I will show, the notion of agreement and disagreement among parts which become fundamental to understand the nature and causal power of things in

⁹⁶ The correspondence with van Blijenbergh highlights that Spinoza did not have a moralistic view, and that he held a conception of good and evil as not really existing in Nature. Indeed, things are called good and evil only in relation to human finite mind but not to God's infinite intellect. Furthermore, Spinoza clearly rejected the idea of a innate imperfection of human beings which seems to characterize van Blijenbergh's Calvinist perspective (see *Letter 19*).

⁹⁷ Toto (2019) points out that *Letter 32* does not only have an epistemic content, but there is also an ethical issue at stake which is deeply connected with Spinoza's conception of Nature.

Nature. In fact, his account of universe results from the interplay between the notions of part and whole on different levels. The whole-parts relationship turns out to be more than an epistemological issue; it is in fact important to observe the other philosophical concerns – ethical, epistemological, cosmological and metaphysical. This testifies the first moment in which the notion of part and whole come to form what some authors have called “Spinoza’s minor lexicon.”⁹⁸

Here, Spinoza excludes that human beings can know *how* each part of Nature “agrees with its whole and how it coheres with others,” since this knowledge requires a knowledge of the “whole of Nature and all of its parts”. This kind of knowledge is perfectly accessible to God’s infinite intellect and, consequently, whole and parts seems to become an ontological foundation in God’s infinite intellect. Even though there is no possibility to achieve an adequate knowledge of how all parts of Nature actually agree with each other, Spinoza affirms that he had good reason to think *that* all things agree with the whole Nature. Spinoza’s implicit distinction between “knowledge *how*” and “knowledge *that*” is particularly important, since the former requires to know all particular things for Spinoza. On the contrary, the latter does not seem to be based on the knowledge of all particulars and their actual relationship, but of something universal in Nature, i.e., the knowledge of the fact that all things belong to one and same order of Nature.⁹⁹

This interpretation might appear inconsistent with Spinoza’s following remark that he does not “attribute to Nature neither beauty, nor ugliness, neither order nor confusion. For only in relation to our imagination can things be called beautiful or ugly, orderly or

⁹⁸ The minor lexicon is defined by Santinelli as a set of meaningful terms that play a key role in Spinoza’s philosophy even though they are not clarified through precise definitions or axioms. The term *pars* belong to this kind of terms. (See Santinelli 2019)

⁹⁹ There is a clear distinction between the knowledge of *how* and *that* each part agrees with its whole and coheres with other parts. Toto (2019) suggests that this distinction is the key to understand the difference between Oldenburg’s “scientific” approach and Spinoza’s “philosophical” one. Sangiacomo argues for the validity of Spinoza’s distinction, since we can know *that* all things belong to the same order of Nature without knowing *how* it does happen (Sangiacomo 2013, 115-16).

confused” (*Letter 32*, II, 18). This is a statement that induces Oldenburg to express his surprise for Spinoza’s denial of a true order of Nature.¹⁰⁰ Unfortunately, there is no proof of a further answer by Spinoza, since the extant correspondence does not comprise other letters to Oldenburg until 1675.

In order to solve this interpretative problem, I will take into account two aspects: 1) The different use of the term “order”; 2) The peculiarity of Spinoza’s interpretation of God’s superabundant power in relation to other early modern views of the order of Nature. 1) The concept of order is usually connected with the idea that Nature is regular, inviolable, universal and determined instead of changeable and chaotic. A view that is consolidated by ascribing a certain legality to Nature whose laws regulate and determine all natural phenomena. However, it is important to notice that the terms “law” and “order” were often used in moral, juridic, physical and metaphysical contexts in the early seventeenth century. Only between the 1660-1685 a specific scientific meaning had been consolidated thanks the newborn Royal Society (see Roux 2001, 555-563).¹⁰¹ The idea of an order of Nature was not so-to-say neutral, but it often involved theological and moral premises.

The previous passage, in which Spinoza denied that it is possible to attribute order to Nature, should not be read as a rejection of the idea of order as such. Rather, it was a rejection of specific theological and moral meanings of this notion and its implications.¹⁰² Indeed,

¹⁰⁰ In *Letter 33* Oldenburg expressed his confusion about Spinoza’s statement: “Your philosophical account of the agreement of the parts of Nature with the whole, and their connection, is very pleasing, although I do not sufficiently follow how we can eliminate the order and symmetry from nature, as you seem to do, especially since you yourself recognize that all its bodies are surrounded by others, and are mutually determined, in a definite and constant manner, both to existing and producing an effect with the same ratio of motion to rest always being preserved in all together. This seems to be the formal ground itself of a true order” (*Letter 33*).

¹⁰¹ For an historical reconstruction of the development of the concept of laws and order see Omodeo and Garau (2019) in which the relationship and conception of the concepts of contingency and order are investigated in different historical periods and from different perspectives.

¹⁰² Among scholars there is no doubt about the fact that there is a fix and immutable order of Nature in Spinoza’s philosophy. Messeri has linked this statement with necessity of the causal connection between cause and its effects (see Messeri 1990, 46-66).

Spinoza did not use the concept of “order” alone, but in opposition to that of “chaos.” He aimed to reject all the qualitative, evaluative and moral ideas of order in Nature as the introduction of this opposition with other pair of concepts, such as beauty and ugliness, shows. All these notions are beings of reason which do not correspond to anything in Nature.¹⁰³

Aspect 2) concerns the metaphysical peculiarity of Spinoza’s idea of God’s production that might have induced him to deny that order can be attributed to Nature. Strictly speaking Nature and God are one and the same for Spinoza, so the concept of order is only understandable in relation to God’s necessary production of all things. This ontological foundation of Nature radically differs from Oldenburg’s conception of God’s role in Nature. For this latter, as well as for other members of the Royal Society, the order and laws of Nature revealed God’s purposes and free will.¹⁰⁴ Most modern views about the relationship between God and Nature conceived the order of Nature as an external imposition of God who decided which regular order is established in the material world. Consequently, one should ask to which extent it would make sense to talk about a true order of Nature or to oppose this order to chaos in Spinoza’s account of God, since God necessarily produces all things as they actually are?

This question is not marginal as it might appear but highlights a key theological divergence between Spinoza’s use of the word

¹⁰³ The nature of these notions is handled by Spinoza in the KV (see KV, I, 10) and, in particular, the main point of his disagreement with van Blijenbergh (see from Letter 19 to 24).

¹⁰⁴ For instance, Peter Harrison has stressed two main approaches to the foundation of natural philosophy and natural laws: “When we look closely at how early modern philosophers make reference to God, we encounter two main approaches: God makes an appearance at the beginning of the exercise, as a premise or presupposition that makes natural philosophy possible; or, more commonly, God appears at the end, as a kind of obvious conclusion to be drawn from natural philosophy (which, nonetheless, might be conducted largely without overt theological assumptions). In the seventeenth century these two options are represented, respectively, by René Descartes and Isaac Newton. Descartes and Newton represent not only two models of God’s involvement in natural philosophy but they advocated different methods, and their competing models of the cosmos dominated seventeenth-century natural philosophical discussions” (Harrison 2019, 59-60). Far from being completely independent of any theological orientation, the foundation and conception of order and of laws of Nature changed in relation to these different views about God’s role in natural philosophy.

“order” and that of many of his contemporaries. For instance, Oldenburg’s and Boyle’s conception of Nature intentionally left open the possibility of miracles, since the laws of Nature could be suspended by God himself without contradiction.¹⁰⁵ Even Descartes, who was accused to provide a necessitarian account of laws and order of Nature rooted in God’s immutability, put a divine free choice at the origin of the creation (see Harrison 2019, 60; Garber 2013, 48-50).¹⁰⁶ But all these metaphysical foundations of a natural order were ruled out, as a matter of principle, by Spinoza’s identification between God and Nature, and the necessary production of all things. In other words, the natural order is not one among other possible orders that God could have imposed to Nature, but is the only possible one. Consequently, to affirm that Spinoza acknowledged a rational and symmetric order of Nature and “had rejected the idea of chaos and disorder in nature” (Merchant 2016, 104) might be misleading, insofar as this opposition or the idea of many different possible orders is not referred to human imagination.

Nevertheless, this should not impede to clarify the different reasons which compelled Spinoza to affirm (*rationes, quibus persuademur*) that each part agrees with its whole and coheres with other parts. The reader should bear in mind that a universal, fixed and immutable order of Nature to which each part belongs lacks any purpose, morality and evaluative dimension. Indeed, Spinoza presented the agreement between parts as follows:

By the coherence of parts, then, I understand nothing but that the laws or the nature of the one part adapts itself to the laws or the nature of the other part so that they are opposed to each other as little as possible. Concerning whole and parts, I consider things as

¹⁰⁵ The importance of different theological premises is stressed by Cecilia Abdo Ferez and Mariana de Gainza who analyzed Spinoza’s scientific *Correspondence* with Oldenburg and Boyle. For instance, Spinoza’s rejection of the vacuum is imposed by his identification between God and Nature, while Boyle always left open God’s action in the natural world through miracles (see Ferez and de Gainza 2020, 69-76).

¹⁰⁶ The eternal and logical truths are created through a divine free choice. Therephore, it is unlikely that Descartes intended to suggest that the existing laws of Nature are necessary beyond God’s will.

parts of some whole to the extent that the nature of the one adapts itself to that of the other so that they [A: all] agree [*convenient*] with one another as far as possible. But insofar as they disagree [*discrepant*] with one another, to that extent each forms in our Mind an idea distinct from the others, and therefore it is considered as a whole and not as a part (*Letter 32, II*).

Spinoza explicitly identified *laws* and the *nature(s)* of things and suggested that a precondition for the coherence of parts is the possibility of an adaptation between their nature or laws. When this happens, things agree with each other and form a whole. This passage is important for three reasons: first, the identification between laws and the natures of things; second, a clarification of the notions of agreement and disagreement through the whole/parts relationship; third, the fact that agreement (*convenire*) and disagreement (*discrepare*) among parts seem to have varying degrees, since things are opposed to each other as little as possible (*minime*) in a whole, but not completely identified.¹⁰⁷ As I have stressed, Spinoza already distinguishes divine laws from human laws in the KV. In comparison to his early account of law, *Letter 32* shows a relevant development in Spinoza's thought.

If one considers the *Theological-Political Treatise*, which Spinoza had just started composing at the time of this letter, one might distinguish between two types of laws: type-I that are laws of nature which are necessary and metaphysically basic; and type-II which depend on human volition, such as that of a particular State. Laws of type-I are descriptive and follow necessarily from the nature of a thing, i.e. they depend on natural necessity. Laws of type-II do not follow necessarily and are normative, e.g. civil laws which

¹⁰⁷ The interpretation of this passage is tricky insofar as it would seem that the agreement is a complete identification and adaptation between two things in Nature. I leave this possibility aside and argue, with Toto (2019), Sangiacomo (2019) and Steinberg (2019) that agreement does not imply a complete unity and identification among the different parts. Indeed, Spinoza never said that things have the same laws and nature(s), but only that their laws should enable their mutual adaptation so they are opposed to each other as little as possible.

depend on historical circumstances.¹⁰⁸ In *Letter 32*, the identification between laws and natures of a thing suggests that Spinoza refers to type-I laws and, more important, he acknowledges that less universal laws exist, meaning a certain causal power of particular things, as well as more universal ones. On the one hand, being a part or a whole depends on the fact that things agree or not with each other. What this means becomes clearer from Spinoza's example of the blood. Chyle, lymph and other elements form one fluid (the blood), insofar as they produce common effects and move according to the universal laws of blood. Consequently, all these things are conceived as parts of the blood because they agree with each other, i.e. they act according to common laws or, in other words, produce a certain effect together.

At the same time, parts differ from each other to some extent. As Spinoza clearly stresses, the elements of the blood can disagree with each other and, in this case, each thing can be conceived as a whole as soon as it produces effects that do not fit in and are not understandable through the common laws of the blood alone. Consequently, complete agreement and complete disagreement seem to be two extremes of a scale, but not the only two options. The whole universe can be conceived as an infinite scale with infinitely many degrees, and in terms of whole-parts relationship. The more things express their causal power according to a common law or nature, the more they agree with each other and form a whole. These common effects are produced according to what Spinoza calls "universal laws."

This worldview is explained by Spinoza by means of a thought experiment about a little worm which lives in the blood as human beings live in the universe:

It could not know how all the parts of the blood are regulated by the universal nature of the blood, and compelled to adapt

¹⁰⁸ The distinction between type-I and type-II is provided by Donald Rutherford even though it will be necessary a further clarification in the next chapter (Rutherford 2010). Laws of type-II are not completely unrelated to natural necessity as I will show in my analysis of the *TTP*. For the moment, I limit myself to explain the bare essential.

themselves to one another, as the universal nature of the blood requires, so that they agree with one another in a definite way (*Letter 32*).

The gnoseological limits of the worm in the blood are the same of human beings in the universe. However, humans differ from the worm insofar as they are more complex and live on a higher level of Nature. Humans can know that all parts of the blood agree with each other and form a whole, despite some minor differences. The motion of each part is regulated and understandable according to the universal nature of the blood. Since humans are aware of the worm's limited point of view, they can understand that:

Now all bodies in nature can and must be conceived as we have here conceived the blood, for all bodies are surrounded by others, and are determined by one another to existing and producing an effect in a fixed and determinate way, the same ratio of motion to rest always being preserved in all of them at once, [that is, in the whole universe]. From this it follows that every body, insofar as it exists modified in a definite way, must be considered as a part of the whole universe, must agree with its whole and must cohere with the remaining bodies. And since the nature of the universe is not limited, as the nature of the blood is, but is absolutely infinite, [its parts are regulated in infinite ways by this nature of the infinite power, and compelled to undergo infinitely many variations] (*ibid.*).

The example of the worm might lead to think that Spinoza provided a bottom-up view on natural laws in *Letter 32*, since he started from the less universal laws to the more universal one. Filip Buyse (2017) has stressed that this letter presents the problem of understanding the agreement among things without contradicting Spinoza's theory of determinism. Consequently, Buyse argued that Spinoza might be inspired by Huygens's explanation of the synchronization of the pendulum clocks. This shows the possibility of an analogy between Spinoza's notion of agreement and contemporary mechanical explanation of some particular phenomena. What is

important to notice, is that Spinoza did not intend to infer the most universal law from the less universal ones. As Marco Messeri, already stressed, the problem of Spinoza is not whether particular laws exist, but how particular things and their conflicts can be explained in relation to one and the same natural order without any reference to an external Providence (See Messeri 1990, 143-175). In Letter 32, Spinoza did not provide a deduction of how particular laws follow from the fixed and eternal order of nature. However, the little worm in the blood offers a perspective which helps to understand that, on the one hand, the most universal laws of the universe regulated the motion and rest of all bodies, on the other hand, there were varying degrees to conceive the causal power of things in Nature without undermining its unity. Later on, Spinoza clearly distinguished the whole universe from Nature as the unique infinite substance by affirming that in relation to this latter each part has “a closer union with the whole” (ibid. II, 20). The reference to *Letter 2* makes clear that he did not mean that the substance itself consists of parts, but he underlined the ontological relationship between substance and modes.¹⁰⁹ The infinite whole or universe belongs to *Natura naturata*, insofar as it can be divided in parts without any contradiction and depend on God at the same time.

It is important to notice that Spinoza usually used the term whole in relation to that of part. In *Letter 32*, “part and whole are not merely correlatives. Rather the former is defined in terms of the latter” (Sacksteder 1977, 154) and the infinite whole is not meant by Spinoza as a complex collection of discrete parts, but as a continuum in which modal parts interact with each other according to common laws and, at the same time, differ under multiple aspects without undermining their belonging to a common whole. Since parts do not have to agree completely, each part can be distinguished and opposed to others to some extent. As Sacksteder (1991) has pointed out, Spinoza’s

¹⁰⁹ As Sacksteder suggests (1977), God is, strictly speaking, not a whole at all, but it is a principle “just because He is that being to which the paired terms *-part* and *whole-* cannot be applied” (Sacksteder 1977, 157).

mereology of the universe should not be understood as a pure spatial metaphor in which, on the one hand, a greatest whole encompassing all parts exists and, on the other hand, there are least indivisible parts as atoms. Instead, “the simple wholes must come first, in the orders of either logic or ontology”, while “any parts, lesser or least, are derivative and dependent, for conception and for existence” (Sacksteder 1991, 79). The relationship between parts and whole recalls, but not corresponds to, that between substance and modes. Indeed, the substance is simple, does not have anything outside and is prior to all its modification, while modes are defined by their being dependent on external things and infinitely divisible.

The interchangeable terms like “law,” “nature” and, in the *Ethics*, also “essence” suggests that the conceptual pair of whole-part has a stronger ontological foundation than in the KV. Indeed, the agreement among parts is characterized by a concrete production of effects which takes place in different degrees. As Spinoza points out, the parts of the infinite universe “are regulated in infinite ways by this nature of the infinite power, and compelled to undergo infinitely many variations” (Letter 32). Instead of a simple subsumption of particular laws from universal one, there is a complex account of universe in which different parts can be discerned by virtue of their dynamic and common production of effects. Even though all these parts are ultimately regulated by universal laws, such as the universal laws of motion, this does not preclude the existence of less universal laws which regulate the interaction among different parts of the same whole.

Chapter 3

Metaphysics and Physics in Spinoza's Mature Cosmology

Spinoza's conception of the universe in terms of whole and parts is explicitly formulated in Letter 32. The role of this account of the universe is fundamental in both the TTP and the *Ethics*. These works offer elements to clarify further aspects of Spinoza's late metaphysical cosmology in connection with theological, political and physical issues.

The *Ethics* presents further developments in comparison to the TTP. Moreover, Spinoza in the TTP did not use some technical terms such as "substance" and "mode." However, chapter IV of the TTP offers a broader explanation of Spinoza's account of laws presented in Letter 32 which will still be relevant in the *Ethics*. The *Ethics* contains many passages which are important to investigate Spinoza's rejection of the arguments against divine extension, as well as to examine what I have defined his "metaphysical cosmology." In the *scholium* of E1p15 Spinoza presented and rejected many arguments against the attribution of extension to God. This testifies Spinoza's depart from Descartes's conception of matter and provides a broader explanation of what extension really is. Moreover, Spinoza introduced his theory of the infinite modes with the addition of the notion of the "infinite mediate mode." Even though this theory is puzzling, it is important to address the concrete example of the infinite mediate mode of extension which Spinoza calls the *facies totius universi* in Letter 64 to Schuller written in 1675. First of all, I will present the main problems of Spinoza's theory of the infinite modes in Spinoza scholarship. Then, I will focus on what scholars have called the "Physical Interludes" of the second part of the *Ethics*.

Here, the whole nature is described as an infinite composition of many individuals “whose parts, i.e. all bodies vary in infinite ways, without any change of the whole individual” (EIIp13L7s). This individual, according to Spinoza’s reference in Letter 64, corresponds to the face of the whole universe. This mereological account of the universe recalls that in Letter 32 and is rooted in Spinoza’s metaphysical physics and his definition of individual. In my opinion, the *Physical Interludes* provide a concrete example to clarify what is implied by Spinoza’s “modal distinction,” and introduce a definition of an “individual” which offers a criterion to discern among different things within the unity of the whole nature.

3.1. Spinoza’s Account of Laws and of the Order of Nature in the *TTP*

The *TTP* represents an important stage of Spinoza’s thought development. Here, he never uses the distinction between substance and mode or the term “attribute” in its technical meaning, namely as God’s attribute of thought or extension (Melamed 2010, 140-41). However, some metaphysical premises of his thought can be inferred from his theological and political arguments. Even though there is no explicit identification of God with Nature there are many passages which enable to assume this identification, as van Velthuysen, one of most relevant Spinoza’s critics, had noticed (see *Letter 42*).¹¹⁰

¹¹⁰ There are at least three reasons to justify the absence of Spinoza’s specific metaphysical terminology: an argumentative, a contextual and a practical one. First, Spinoza pleaded for the separation between theology and philosophy, and wanted to show that the freedom of philosophizing did not harm to the peace of the republic or the right of the supreme power. Consequently, the aim of the *TTP* largely differed from that of the *KV* or the *Ethics*. Second, since the *TTP* was meant to be published, Spinoza probably avoided giving more reasons for charging him of atheism. As Spinoza wrote to Oldenburg in 1665, what moved him to write the *TTP* is “the opinion the common people have of me; they never stop accusing me of atheism, and I am forced to rebut this accusation as well as I can” (Letter 30). An attempt, as one might see in the exchange with Oldenburg or Van Velthuysen, that clearly failed. The *TTP* was banned in 1674 by the Court of Holland. For an historical reconstruction of the early reception of Spinoza’s philosophy of religion see Siebrand (1988). Finally, using a precise terminology could have been useless or even counterproductive to clarify Spinoza’s own ideas on the practical role and interpretation of the Scripture, the necessity of the freedom of philosophizing and the true foundation of the state.

Most important for my investigation is the explanation of the relationship between God and things in chapter XVI, which introduces a nomological dimension in Spinoza's ontological argument. In chapter XVI, Spinoza addresses the notions of natural and civil rights as well as the foundation of the republic (*fundamentis reipublicae*). At the beginning of this chapter, he defines the natural rights of each thing as their power itself, an identification which can be found also in Hobbes. However, Spinoza deduces this identity from the fact that "the power of nature is the power of God itself, and he has the supreme right over all things" and that "the universal power of the whole of nature is nothing but the power of all individuals together" (TTP, XVI, 2). This argument reveals that the identification between God and Nature is a key ontological premise of his political thought. Even more important is the fact that the power of things is conceived as the power of God itself, even though expressed in a determinate way.¹¹¹ The following passage shows that the cosmological, epistemological and ethical aspects of the account of universe presented in Letter 32 characterize also Spinoza's political thought:

Nature is not constrained by the laws of human reason, which aim only at man's true advantage and preservation. It is governed by infinite other laws, which look to the eternal order of the whole of nature, of which man is only a small part (*in finitis aliis, quæ totius naturæ, cujus homo particula est, æternum ordinem respiciunt*).¹¹² It is only by the necessity of this order that all individuals are determined to exist and have effects in a definite way. So when anything in nature seems to us ridiculous, absurd, or evil, that's

¹¹¹ As Curley (1991) stresses, the *Ethics* was not accessible to the readers when the TTP was published in 1670. Curley, starting from Matheron's reflections (Matheron 1986), notices that if the identification between natural rights and power of things might easily have been accepted at that time, the idea that the power of things is the same of God is typical of Spinoza's thought. Indeed, the same identification will be presented in the TP (II, 2) with the addition of a synopsis of the metaphysical premises of the *Ethics*.

¹¹² The words *pars* and *totus* comes always together in Letter 32 and Spinoza's *Physical Interlude* in the *Ethics*, while in the TTP, for instance in the previous passage, the words *pars* does not appear in relation to the whole. (See Toto 2014, 91-137)

because we know things only in part, and for the most part are ignorant of the order and coherence of the whole of nature, and because we want everything to be directed according to the usage of our reason – even though what reason says is evil is not evil in relation to the order and laws of nature as a whole, but only in relation to the laws of our nature (TTP, XVI, 10).

Even if one does not find the concepts of substance, modes, attributes or a technical use of the whole-parts relationship in the TTP, they form the implicit metaphysical background of the previous conception of human position in Nature.¹¹³ Assuming that Spinoza had fully developed most aspects of his metaphysics by 1670, the TTP offers an important clarification of Spinoza's account of law. After identifying the natural rights with the determined power of each thing, Spinoza posited that “the supreme law of nature is that each thing strives to persevere in its state, as far as it can by its own power, and does this, not on account of anything else, but only of itself” (TTP, XVI, 2). The first appearance of the term *conatus* in Spinoza's *corpus*, which is likely influenced by the reading of Hobbes' *Leviathan*,¹¹⁴ came together with the understanding of the striving for self-preservation as a universal law of Nature. If this passage might recall Spinoza's definition of God's Providence in the KV, there are key differences that shows discontinuity with the early conception of law. To stress it, one should come back to the non-theological or qualitative definition of law provided in chapter IV:

The word law, taken without qualification (*absolute sumptum*), means that according to which each individual, or all or some members of the same species, act in one and the same fixed and

¹¹³ There are other aspects such as the definition of some affects which might show key differences between the TTP and the *Ethics*. (See Sangiacomo, Illuminati, Toto)

¹¹⁴ The *conatus* is defined in the *Ethics* as “nothing but the actual essence of a thing” (EIV, 7). Scribano (2012) has followed the development of the concept from the early writings to the *Ethics*. Indeed, term *conatus* is absent in the KV which we have received only in Dutch. This is not only a terminological difference. Scribano stressed that the concept of *conatus* become fundamental in the *Ethics* in which the evaluation of what is good and bad is not ground on an intellectual position but it is deeply connected with a passionate dimension through the notion of “desire.” In Scribano's view, the development of Spinoza's specific notion of *conatus* is influenced by Hobbes' *Leviathan*.

determinate way. This depends either on a necessity of nature or on a human decision. A law which depends on a necessity of nature is one which follows necessarily from the very nature or definition of a thing. One which depends on a human decision, and which is more properly called legislation, is one which men prescribe for themselves and others, for the sake of living more safely and conveniently, or for some other causes (TTP, IV, 1).

Here, Spinoza did not distinguish between a universal and particular providence, as we have seen in the KV written around 1661. Rather, as I have anticipated in the last section, there are laws necessary and metaphysically fundamental – type-I – and others which depend on human volition and are historically contingent – type-II in the TTP. However, one might notice that the meaning of the word *lex* is more complex than it might appear at a first glance. Spinoza’s first example for laws of type-I is Descartes’ second law of motion: “It is a universal law of all bodies, which follows from a necessity of nature, that a body which strikes against another lesser body loses as much of its motion as it communicates to the other body” (TTP, IV, 1). A second example of this kind of law is presented as less universal, since it refers to the laws of human nature: “Similarly, it is a law which necessarily follows from human nature that when a man recalls one thing, he immediately recalls another like it, or one he had perceived together with the first thing” (TTP, IV, 1). These two examples suggests that the laws of motion and that of human imagination are characterized by the same natural necessity. They only differ in their degree of universality, since the laws of motion regulate the motion of all bodies, while the laws of human imagination correspond to a common cognitive feature of human beings. Laws of type-I relies on the fact that from “the very nature or definition of a thing” necessarily follows a way of producing certain effects (TTP, IV, 1).

As he had already done in Letter 32, Spinoza recognized here the existence of different laws which can regulate the action of things in different ways. But to distinguish these different degrees, one should

look at the individuals' production of effects. Indeed, the possibility of producing common affects shows whether the actions of the individuals might be conceived under a common law or not. Most importantly, the necessity of laws of type-I is not undermined by the fact that they regulate only the action of a certain group of things.

Instead, the third example corresponds to laws of type-II, namely laws “that men should yield, or be compelled to yield, the right they have from nature, and bind themselves to a fixed way of living, depends on a human decision” (TTP, IV, 1) Now, such laws are established among human beings to achieve a certain goal together, be it their safety or wellbeing, but are not necessary beyond their contextual and historical contingency. Although these examples show a broader semantic spectrum of the term *lex*, the distinction between natural and human laws does not correspond to a discontinuity in Nature. Instead, Spinoza clarifies that everything is determined by the universal laws of Nature to produce effects in a “fixed and determined way” (TTP, IV, 3). Furthermore, Spinoza provided two reasons to support his distinction between natural and human laws. Interestingly, the first argument relied on the internal distinction which characterized universal and particular laws of type-I which might be more or less universal:

First, because insofar as man is a part of nature, he constitutes part of the power of nature. So the things which follow from the necessity of human nature – i.e., from nature itself insofar as we conceive it to be determinate through human nature – still follow, even though by necessity, from human power (TTP, IV, 3)

For Spinoza a determined causal power corresponds to the nature or laws of each thing, and things can be discerned in respect of their different ways of producing effects. This use of the term “law” enables to understand that human beings produce certain effects according to their nature within the whole of Nature. Spinoza conceived the causal power of each part as the same power, even though determined and fixed, of the whole Nature. This did not lead

to a rupture within the whole Nature but made it only more complex and dynamic, insofar as a varying production of effects and different causal interaction happens within Nature. The second reason why Spinoza distinguishes between laws, depending on human decision, and natural laws, shows that human laws are not really independent of universal natural laws, but only denote the limitedness of the human knowledge of nature:

Second, I have also said that these laws depend on a human decision because we ought to define and explain things through their proximate causes. That universal consideration concerning fate and the connection of causes cannot help us to form and order our thoughts concerning particular things.

Furthermore, we are completely ignorant of the order and connection of things itself, i.e., of how things are really ordered and connected. So for practical purposes it is better, indeed necessary, to consider things as possible. These remarks will suffice concerning law, taken without qualification (*TTP*, IV, 4).

It is well-known that Spinoza rejected the notion of free will and considered human will and intellect as one and same thing (EIIp49c). Once again, the necessity of God's action ruled out free choice.¹¹⁵ Consequently, human laws did not depend on human decision absolutely, viz. as a result of a free choice, but only in relation to human limited knowledge and volitions. If human beings were able to know "how things are really ordered and connected," they would also know the natural necessity and causes of these volitions. Indeed, the use of the term law in relation to human decision has a "practical function" without any independent ontological foundation. Spinoza clarified that "the word law seems to be applied figuratively to natural things, and commonly is understood by law but a command which men can either carry out or neglect" (*TTP*, IV, 5). Hence, it is useful to distinguish between human and divine law in respect of this

¹¹⁵ "That is, in themselves God's will and God's intellect are really one and the same; they are distinguished only in relation to the thoughts we form about God's intellect" (*TTP*, IV, 22).

common meaning of law, but one should not do it in relation to the whole Nature.

It is enough to stress that natural laws always involve an eternal necessity even when they denote a determined way of acting of a group of individuals. This account of law is deeply connected with Spinoza's mereological conception of the universe in which human beings are part of Nature and express its power in a determined way.

3.2. Beyond Descartes' Conception of Extension

In the *scholium* of EIp15, after proving that "whatever is, is in God and nothing can be or be conceived without God" (EIp15), Spinoza listed two different misconceptions of God's nature:

There are those who feign a God, like man, consisting of a body and a mind, and subject to passions. But how far they wander from the true knowledge of God, is sufficiently established by what has already been demonstrated. Them I dismiss. For everyone who has to any extent contemplated the divine nature denies that God is corporeal. They prove this best from the fact that by body we understand any quantity, with length, breadth, and depth, limited by some certain figure. Nothing more absurd than this can be said of God, viz. of a being absolutely infinite. But meanwhile, by the other arguments by which they strive to demonstrate this same conclusion they clearly show that they entirely remove corporeal, or extended, substance itself from the divine nature. And they maintain that it has been created by God. But by what divine power could it be created? They are completely ignorant of that. And this shows clearly that they do not understand what they themselves say (EIp15s).

There is a mythological and anthropomorphic understanding of God, as well as a transcendent one which separates God from its creation and all corporal substances.¹¹⁶ The former conception is not

¹¹⁶ Here, Spinoza talks of a corporal or extended substance. This is surprising, since he had demonstrated the existence of one substance, namely God. The reference to a corporal or extended substance can be read in different ways: 1) It may support Gueroult's interpretation that Spinoza still arguing for the existence of infinite attributes-substances also in the *Ethics*; 2) it can be an heritage of an early

only inconsistent with Spinoza's proof of God but also with the Modern Christian tradition. Consequently, it can be dismissed without any further argumentation. Instead, the latter is the main conception of God – which Descartes himself endorsed – which Spinoza attributes to his critics.

This argument rests on two premises: 1) God is a absolute infinite being, and 2) bodies are conceived as “any quantity, with length, breadth, and depth, limited by some certain figure” (*ibid.*). Consequently, God cannot be material, since the finitude of bodies would contradict his perfection.¹¹⁷ On the one hand, Spinoza agreed with this conclusion, since he conceived bodies as finite modes of God which depend on It for their existence. On the other hand, he denied that this conclusion would imply an inconsistency between God's nature and extension or the corporal substance. Spinoza's argument recalls the problem of how God would be able to create matter or to act upon it if the Its nature completely differs from the material one. This is impossible based on Spinoza's own conception of causation between substances and attributes (see EIp1 and p2), since attributes are really distinct and substances cannot produce other substances. At that time, this was a common metaphysical issue concerning causation between different substances, such as mind and body.

position presented in the early writings or 3) it aims to adapt to the vocabulary of his critics which understand the extension as a corporal substance in order to refute their argument. Even though all these interpretations should be taken into account, I consider the third one as the most probable, since in this *Scholium* Spinoza's aim is to correct the common theological mistakes about extension. However, it does not necessarily exclude the other two options.

¹¹⁷ It is difficult to tell exactly which authors would use this argument. Mignini talks about a Scholastic argument, which is too vague to identify a specific scholastic tradition. Indeed, as Robert Pasnau shows there are many different conceptions and definitions of bodies in the so-called “Scholasticism.” Consequently, not all Scholastic authors would define a body as Spinoza did here (see Pasnau 2011, part I). Furthermore, Spinoza addressed and rejected other arguments against the attribution of extension to God later in the same scholium. The second one is clearly one of Descartes's arguments against divine extension. This latter can easily be seen as a target of Spinoza's criticism here (see Lewis 1976).

Assuming that Spinoza accepted Descartes's statement, presented by Spinoza himself in his *Principles of Cartesian Philosophy*¹¹⁸, each cause has to contain the perfection of his effects formally or eminently. Consequently, God has to have a material form in itself in order to be able to create or act on matter. In other words, God can produce matter or act upon it only if It owns every perfection of matter. But since theologians have removed all material forms from God, they cannot explain how It creates and acts on the material world.

Before addressing Spinoza's account of the universe in the *Ethics*, it is necessary to focus on his arguments for an indivisible and infinite attribute of extension in EI_p15s. In this *scholium*, Spinoza did not only aim to prove that extension is infinite according to his own ontological proof of the existence of God. He also highlighted that this fact should be acknowledged also from his opponents, as soon as they conceived extension by means of the intellect. Spinoza briefly addressed two common arguments against the attribution of extension to God. According to the first one, extension has to be finite: for if one divided the infinite substance into two parts these parts would be twice as large as the original extension if they are infinite, or else the infinite extension would be an infinite composition of parts. Spinoza agreed with his opponents that both possibilities are absurd. The second argument relied on the intrinsic divisibility of extension, i.e., the fact that divisibility implies that a thing can be acted upon and, consequently, that it is passive.

It is not necessary to analyze in detail these arguments, since all of them are built on a common supposition, namely the idea that

¹¹⁸ "Whatever reality, or perfection, there is in any thing, exists formally or eminently in its first and adequate cause. I understand that the reality is in the cause eminently when the cause contains the whole reality of the effect more perfectly than the effect itself, but formally when it contains it as perfectly. This axiom depends on the preceding one. For if it were supposed that there was either nothing in the cause, or less in the cause than in the effect, then the nothing in the cause would be the cause of the effect. But this (by A7) is absurd. So not anything can be cause of an effect, but only that in which there is every perfection which is in the effect either eminently or at least formally" (PPC, I, ax8).

“corporal substance is composed of parts” and intrinsically divisible (EIp15s). As I have shown, Spinoza was already committed to show the erroneousness of this supposition in the KV. In the *Ethics* he underlined again that authors who argued that corporal substance is finite and unworthy of the divine nature, had a confused idea of what an infinite quantity actually is, since they came to their conclusion by assuming “that it has to be measurable and composed by finite parts” (EIp15s). One of these opponents was Descartes himself. In particular, the second argument, affirming the passivity of the extended substance, was implicitly referred to Descartes.¹¹⁹

That Spinoza departed from Descartes’s account of extension it is also testified by his exchange with Ehrenfried Walther von Tschirnhaus. A few months before his death, Spinoza expressed more than a doubt about Descartes’ conception of extension. In 1676, Tschirnhaus asked Spinoza whether a demonstration *a priori* of the existence of bodies was possible (see Letter 80). Instead of providing a direct answer, Spinoza affirmed that such a demonstration was impossible according to Descartes’ conception of extension:

Next, from Extension, as Descartes conceives it (i.e., as a mass at rest), it is not only difficult to demonstrate the existence of bodies, as you say, but completely impossible. For matter at rest, insofar as it is in itself, will persevere in its rest, and will not be set in motion except by a more powerful external cause. For this reason I did not hesitate, previously, to affirm that Descartes' principles of natural things are useless, not to say absurd (Letter 81).

Spinoza considered Descartes’s statement that a transcendent God is the first cause of motion as highly problematic at least for two reasons. In general, we have seen that the causal relation between an

¹¹⁹ Lewis (1976) has argued that Spinoza intended here to depart from Descartes explicitly. Furthermore, Robinson (2009) has claimed that the reference to the vacuum argument in the same *scholium* played a key role to challenge Descartes’ own conception of extension. Indeed, Spinoza saw a contradiction between Descartes’ rejection of the existence of the vacuum and the idea of the intrinsic divisibility of extension. One might wonder whether Spinoza faithfully reported Descartes’s account of extension here and whether the account of extension of the former did not fulfil the most radical implication of the latter.

immaterial God and corporal substance cannot be explained, insofar as God should have something in common with matter in order to act and create it. Moreover, in Spinoza's own account of extension it is impossible to conceive an external cause which can produce effects in matter, insofar as it is an attribute of God infinite in its kind. Nevertheless, the answer offered to Tschirnhaus did not clarify whether it is impossible as a matter of principle to demonstrate the existence of bodies *a priori* or only by means of Descartes' account of extension. This explains why Tschirnhaus insisted to have Spinoza's own opinion on the possibility to demonstrate the existence of finite bodies *a priori*. Pressed by his friend's questioning, Spinoza affirmed the following: "I believe I have already shown clearly enough that this is impossible, and that therefore Descartes defines matter badly by Extension, but that it must necessarily be explained by an attribute which expresses eternal and infinite essence" (Letter 83 to Tschirnhaus in 1676). Spinoza preferred to postpone a more complete and ordered answer at another time, which in fact never came because of his premature death a few months later.

These letters cannot be taken as a clear and conclusive clarification of how things can be derived from extension. However, Spinoza clearly draws a difference between Descartes' and his own conception of extension. If it seems to be impossible to derive *a priori* how bodies exactly come to existence from extension, Spinoza suggested that his account of extension, as an infinite attribute of God, might explain the relationship between extension and individual things in terms of causal explanation (see Schnepf 2011, 41-42). Spinoza's reference to an attribute which expresses an eternal and infinite essence recalled the idea, presented in the KV, that motion and rest always exist because infinite attributes are predicated of Nature.

There is an evident common thread which connects Spinoza's reflections on extension from the KV to the *Ethics* which might be a clue of the fact that he had always considered Descartes' conception of extension problematic. In Letter 83 written in 1776 Spinoza

affirmed that it is impossible to deduce *a priori* how individual things derive from the attribute of extension. However, Descartes conception of inert matter, separated from God, was not only useless to demonstrate the existence of bodies *a priori* but also made impossible to explain the relationship between extension and the variety of existing bodies according to Spinoza. This relationship can be explained by conceiving extension not as inert and passive matter, but as an attribute of God which constitutes Its essence (EIdef4). Since this essence is identified an absolute infinite power (*potentia*) (EIp34), Spinoza's Nature, including the material world, reveals a kind of dynamicity which is underlined by God's production of infinitely many things: "from the necessity of the divine nature there must follow infinitely many things in infinitely many modes, (i.e., everything which can fall under an infinite intellect)" (EIp16).¹²⁰ As Mogens Learke (2013) has stressed that these things and the whole *natura naturata* are not simple effects of God's divine causation, but each thing is both an effect of God's infinite power and a cause which expresses this power in a certain determined way. Consequently, "the *natura* which is considered either as *naturans* or as *naturata* is one and the same *natura*, considered either as unmodified or as modified" (Laerke 2013, 73).

It is important to notice that Spinoza clarifies in EIp15s what extension really is before affirming that many things follow from the unique substance. The ontological foundation of a novel account of extension in the *scholium* to that proposition might not appear so relevant for the strict conceptual and logical argumentation of the first part of the *Ethics*. However, it becomes fundamental from an historical and theological point of view, since it clarifies the meaning and importance of the following conclusion: "All things, I say, are in God, and all things that happen, happen only through the laws of

¹²⁰ The idea of a dynamicity of Nature is usually meant to posit Spinoza's account of extension in opposition to the Cartesian inert matter. Furthermore, it is often used to stress the relational existence of things in Spinoza's ontology, i.e., how their actual existence is necessarily characterized by their connection with other things and the situation (see Santinelli 1996, p. 6).

God's infinite nature and follow (as I shall show) from the necessity of his essence" (*ibid.*). This is not only an acknowledgement of God's superabundant power, but corresponds to a change of the ontological limits of the material world. In particular, Spinoza retains that it is impossible to think that the corporal substance can be divided in really distinct parts for those who know that no vacuum exists in Nature:

Since, therefore, there is no vacuum in nature (a subject I discuss elsewhere), but all its parts must so concur that there is no vacuum, it follows also that they cannot be really distinguished, i.e., that corporeal substance, insofar as it is a substance, cannot be divided" (EI_p15s).

If the reference to a discussion about the vacuum elsewhere is often traced back to Spinoza's *Principles of Cartesian Philosophy* which was published in 1663, the KV outlines even better Spinoza's own use of the argument against the vacuum to demonstrate the indivisibility of extension.¹²¹ Indeed, the possibility of a vacuum is presented, and immediately refuted, when Spinoza affirmed that the extended substance is ontologically prior to and independent of all its parts. Furthermore, Spinoza almost literally quoted the passage, already provided in the Letter 12 to Mayer, in which he distinguished between two ways of conceiving quantity, one by means of the

¹²¹ Spinoza referred to the impossibility of vacuum both in the KV and in his published *Principles of Cartesian Philosophy*. Moreover, Letter 13 to Oldenburg shows that Spinoza conceived the argument against the vacuum from an ontological, not only epistemological, perspective: "But I do not know why he calls the impossibility of a vacuum a Hypothesis, since it follows very clearly from the fact that nothing has no properties. And I am surprised that the Distinguished Gentleman [Boyle] doubts this, since he seems to maintain that there are no real accidents. I ask whether there would not be a real accident if there were Quantity without Substance?" (Letter 13). Schmaltz (1999) pointed out the difference between Spinoza's explanation of the vacuum in his *Principles of Cartesian Philosophy* and in EI₁₅s. He rightly noticed the continuity between the argumentation in this scholium of the *Ethics* and that in the KV. In the *Ethics* Spinoza clearly developed his ontological argument in the direction of a substance monism and abandons the ambiguous terminology of the KV. However, there is a fundamental continuity in conceiving the attribute of extension between these two works. For instance, in both works Spinoza seemed to reject the notion of substantial parts but not the notion of idea as such, which is often used in relation to the modal ontological dimension.

imagination and another by means of the intellect.¹²² This distinction between the imagination, namely human inadequate ideas, and the intellect, namely human adequate ideas, will not be explained until part II of the *Ethics*. In light of what we have seen in the KV and in the *Correspondence*, the *scholium* to EIp15 offers an ordered, clearer and conclusive rejection of the argument against the attribution of extension to God. There are three key aspects to take into consideration: 1) Spinoza considered, also following Descartes' philosophical premises, impossible to conceive extension as consisting of really distinct parts, insofar as this was inconsistent with the rejection of the vacuum; 2) the distinction between imagination and intellect did not aim to clarify the reason why human beings conceive erroneously extension as a certain mass consisting of really distinct parts. Rather, it highlighted that the common conception of extension largely differs from that formulated through a correct use of the intellect; 3) Spinoza again rejected the notion of substantial part, meaning a part which can be separated and can exist without the others, but not that of modal part.

The explanation of different kinds of infinite in Letter 12 enables to provide a better interpretation of the re-proposed example of the water, that we have already found in the KV:

For example, we conceive that water is divided and its parts separated from one another-insofar as it is water, but not insofar as it is corporeal substance. For insofar as it is substance, it is neither separated nor divided. Again, water, insofar as it is water, is generated and corrupted, but insofar as it is substance, it is neither generated nor corrupted (*ibid.*).

¹²² "If someone should now ask why we are, by nature, so inclined to divide quantity, I shall answer that we conceive quantity in two ways: abstractly, or superficially, as we [NS: commonly] imagine it, or as substance, which is done by the intellect alone [NS: without the help of the imagination]. So if we attend to quantity as it is in the imagination, which we do often and more easily, it will be found to be finite, divisible, and composed of parts; but if we attend to it as it is in the intellect, and conceive it insofar as it is a substance, which happens [NS: seldom and] with great difficulty, then (as we have already sufficiently demonstrated) it will be found to be infinite, unique, and indivisible" (EIp15s).

Once again water, as a specific mode of the infinite substance, is generated and can be destroyed. Nevertheless, this does not affect that the substance – on which this mode depends and from which it is generated – that is still conceived as simple, eternal and indivisible in virtue of the asymmetrical relationship with its modes. As we have seen in the KV, different parts exist only as modally distinct and ontologically dependent on the infinite and unique substance. The real question, as I have already underlined in my analysis of the KV (1.4), concerns how Spinoza explained the ontological coexistence of different modal parts and the unique substance.

3.3. On the Notion of the Infinite Mediate Modes

The first part of the *Ethics* provided an organic explanation of different aspects which follow from God's essence. Spinoza demonstrated that only God is a free cause, since It acts only according to Its laws and not determined by external causes, (EIp17) It is the immanent cause of everything (p18) and the efficient cause of both essences and existences of things (p25). Finally, Spinoza showed that God's *potentia ordinata* and *absoluta* are one and the same (p33).

However, the exposition *more geometrico* of these propositions does not prevent controversial passages such as that of the infinite modes that follow (*sequi*) from God's infinite attribute. Spinoza distinguished between two kinds of infinite modes without offering any example of them¹²³:

The mode, which exists necessarily and is infinite, has had to follow from the absolute nature of some attribute of God-either immediately (see P2 I) or by some mediating modification, which follows from its absolute nature, i.e. (by P22), which exists necessarily and is infinite, q.e.d. (EIp23dem).

Some preliminary remarks about Spinoza's account of infinite modes are necessary. The few prepositions (EIp21, p22, p23)

¹²³ As I have shown in my analysis of the KV, Spinoza affirmed that motion is an infinite mode of extension that it is immediately produced by the *natura naturans*.

concerning the infinite modes are highly controversial because their argumentative function and role are not clearly stated by Spinoza nor easily intelligible. The first problem concerns the nature of these modes since they were often understood as stages between the infinite attributes of God and the finite things which follow from Its nature. The theory of the infinite modes has often been interpreted to support an emanative reading of Spinoza's account of substance and to justify a comparison with Neoplatonic or Cabbalistic sources.¹²⁴ However, such an interpretation is highly problematic as appears inconsistent with the explicit account of immanence presented in the *Ethics*. Indeed, a theory of emanation posits a clear separation between the One and the things which are emanated. A second problem is that Spinoza introduced the notion of a "mediate infinite mode" for the first time without offering any explicit example. The last problem concerns the kind of infinite that should be ascribed to these modes. An attribute is defined as infinite in its kind, since we can "deny infinite attribute of it" (E1def6), but cannot be limited by things of the same nature, viz. by things which have something in common with it. The question is thus: how is it possible to conceive two infinite modes of the same kind?

To solve the first problem, many scholars have pointed out that the introduction of the mediate infinite mode does not aim to offer a deduction or progression of finite things from the infinite modes. As a matter of fact, Spinoza never presented the propositions from 20 to 28 as a deduction or a progression. Rather, the reader comes to face many different issues and an explanation of the many different things that follow from God's essence, as Spinoza demonstrated in E1p16.¹²⁵ Consequently, Spinoza's statement that from the infinite cannot follow any finite thing and that no infinite thing can be the proximate cause of finite things (see E1p21-22) is not inconsistent his explanation of particular things (see E1p25-29).

¹²⁴ For instance, see Gerbhardt (1921) and Wolfson (1960).

¹²⁵ Rousset (1986), Giancotti (1995, 279-306), Santinelli (1996), Sangiacomo (2010) and Schnepf (2011) consider the problem of the deduction of the infinite from the infinite a false problem, at least in relation to these propositions.

A plausible interpretation, which departs from any concept of emanation, relies on the idea that infinite many things in many different modes must follow from God's nature, i.e., all things falling under an infinite intellect. On the one hand, there are the infinite modes which follow immediately or by some mediating modification from the attributes; on the other hand, there are finite things which are determined to exist and to act by an infinite chain of causes consisting in actual infinite chain of finite things (EIp28). In a nutshell, this is the way in which infinite many modes express God's nature in infinite different ways: the infinite modes express God as infinite even though this infinite depends on its cause, namely an attribute or its immediate modification, while "particular things are nothing but affections of God's attributes, or modes by which God's attributes are expressed in a certain and determinate way" (EIp28).

There is less agreement among scholars about the second problem, that concerns the introduction of two infinite modes of the same kind. For Spinoza, a thing is infinite in its kind as long as there is something that can limit its nature. For instance, the attribute of extension cannot be limited by the attribute of thought, since they do not have anything in common and are really distinct (EIp10). However, in the case of the infinite modes of extension we face a different theoretical picture. The immediate and mediate infinite modes share the same attribute and, therefore, have something in common. Hence, it is problematic to figure out how they can exist as infinite in the same attribute without limiting each other. While Sangiacomo has highlighted the problem of conceiving two infinite modes that share the same attributes (Spinoza 2010, 60-62), other scholars have neglected this problem and have mainly focus on the problem of the deduction from infinite modes to finite things. For instance, Melamed (2010) has rejected Hegel's account of acosmism by arguing that a multiplicity of things is established by Spinoza through the existence of infinite modes even though it is not possible to justify the existence of finite things. Furthermore, Yovel (1991) and Robert Schnepf (2011) even argued that more than two infinite modes

of each attribute exist and, consequently, they do not see any problem in the coexistence of many different infinite things. Schnepf explicitly distinguished the *infinitus* of the attributes from that of modes which he understands as *indefinitus*. A distinction that might be supported by the fact that Spinoza never talked of modes which are infinite in their kind and accepted different kinds of infinite, as we have seen in Letter 12 to Mayer. If one interpreted the infinite modes in light of the distinction provided in Letter 12, one could easily see that the infinite of the infinite modes differ from that of the attributes by their cause: the infinite of the attributes follows from the definition of “attribute” itself, while that of the mode from its proximate cause. This enabled Schnepf to argue that there is not only one infinite mediate mode and the *facies totius universi* is only one example among others: “Infinite modes are modifications or states of the attributes in the sense that they are overlapping modifications of the same – but they do not yet imply time. The endpoints of the *sequi*-chains do not coincide. This means that there are several mediate infinite modes” (Schnepf 2011).

Here, I will shed light on the example of the infinite mediate mode of extension that Spinoza provided in Letter 63 to Schuller written in 1675, that is, the *facies totius universi*. This infinite mode is identified with the mereological description of the whole Nature provided in the so-called *Physical Interludes* of the second part of the *Ethics*. Here, the whole Nature is described as an infinite individual composed by infinite others. Furthermore, this whole individual consists in parts which vary in infinite ways without any change in the whole Individual (EIIp1317s). This worldview testifies that Spinoza still conceived the whole universe as an infinite modal whole with a mereological structure similar to what we have seen in Letter 32. Far from solving all the interpretative problems of the theory of the infinite modes, this approach is an attempt to investigate what I called Spinoza’s metaphysical cosmology in a more concrete way.

Three different interconnected issues emerge here. First, there is no clue of the notion of “infinite mediate mode” in Spinoza’s early writings, while he talked of motion as an infinite mode of extension,

and there is no clear explanation of what the word *mediante* should mean in the *Ethics* either. This word does not appear as a technical term. Rather, it refers only to the fact that the infinite mediate mode does not follow from an attribute immediately but from an immediate modification of this attribute. Second, Spinoza developed an account of universe in 1665 in which the whole-parts relationship had an ontological foundation. Furthermore, the whole universe was explicitly distinguished from the notion of substance. Finally, the only example of an infinite mediate mode provided by Spinoza was a physical explanation of the whole Nature as an infinite whole consisting of parts.

3.4. The *facies totius universi* as an Infinite Modal Whole

As I have shown, in a 1661 letter, to answer Oldenburg's question about the causal interaction of thought and extension, Spinoza offered a solution to the problem starting from a "true definition" of God. The same way of thinking characterized the *Ethics*. After his explanation of God's nature and at the beginning of the second part of the text, Spinoza stated as a matter of fact, that human beings only perceive what falls under the attributes of thought and extension, i.e., bodies and modes of thinking. He firmly excluded any possible causal interaction between these two attributes or between modes which are conceived under different attributes (EIIp6). This strict causal barrier between thought and extension clearly excluded that the human mind could determine the body, and vice versa. What many philosophers considered as a causal interaction between body and soul, was for Spinoza a correspondence between things that fell under different attributes. He posited that "the order and connection of ideas is the same as the order and connection of things" (EIIp7). This strict correspondence between modes of different attributes led Spinoza to conclude that the human mind was something else than the idea of the human body, viz. of "a certain mode of extension which actually exists" (EIIp13).

Spinoza's example of the face of the whole universe is presented in what scholars have called the *Physical Interludes*. It is well acknowledged by scholars that this excursus on physics, that comes after proposition 13 of the second part of the *Ethics*, should not be considered as Spinoza's own contribution to physics or as an attempt to clarify his own physics.¹²⁶ His aim was only to explain the nature and power of the human mind through a general explanation of the common nature of bodies which act according to the universal laws of motion.¹²⁷

In a nutshell, the *Physical Interludes* are not a brief treatise of physics or a complete exposition of what Spinoza considered true in contemporary natural philosophy, but only serve to clarify a few core concepts regarding the world of bodies in order to understand the nature and power of the mind. However, this does not mean that Spinoza's knowledge and interest in natural philosophy did not play any role in achieving this aim. Indeed, this task required a knowledge of the common features of all bodies in order to understand the human mind by virtue of the correspondence established in EIIp7. Whether Spinoza largely accepted Descartes' principles of physics or was also influenced by other authors, such as Hobbes or Huygens, in the *Physical Interludes*, is disputed by scholars who often had to

¹²⁶ The limits of this physics are clearly stated by Messeri (1990) who stressed that Spinoza's contribution to physics is highly limited in comparison to Descartes and other early modern authors, such as Boyle and Gassendi. Gaukroger (2011) compared Huygens' approach to Descartes physics with Spinoza's one. While the former's strategy "is to keep a core physical theory pure, at it were, to try to do as much natural philosophy as possible within the narrow confines of kinematics", the latter "attempts to extrapolate from what he considers to be a properly formulated physical theory to the whole of natural philosophy, and indeed ultimately to anything purporting to be knowledge" (Gaukroger 2011, 126). These are two different approaches which confirm the limitedness of Spinoza's interest in physics.

¹²⁷ Ascribing to the *Physical Interludes* this role it is also doubtful according to different textual evidence. For instance, Spinoza clearly admitted in Letter 83 to Tschirnaus, in 1776, that he had not worked on a complete and ordered exposition of physics yet. A statement which came shortly before his death and after his attempt to publish the *Ethics* in 1775. Moreover, the closing remark of his exposition of physics clarifies that: "If it had been my intention to deal expressly with body, I ought to have explained and demonstrated these things more fully. But I have already said that I intended something else, and brought these things forward only because I can easily deduce from them the things I have decided to demonstrate" (EIIp13L7s).

admit the hypothetical foundation of their arguments.¹²⁸ It is certain that Spinoza accepted a few crucial aspects which characterized Descartes' mechanical philosophy, such as the rejection of substantial forms, the necessity of an explanation of phenomena through motion and rest, etc. (see D'Amico 2018).

Here, I will limit myself to offer a metaphysical reading of the *Physical Interludes* in which Spinoza provided his cosmological view of whole nature. Spinoza's general explanation of the material world recognized the existence of different kinds of bodies: the simplest bodies, the complex bodies or individuals and the whole of nature. One might rightly ask whether complex individuals and the whole nature should be really distinguished from each other. As I will show, there is neither an ontological nor an evident distinction by means of a definition. However, the whole nature is conceived as an infinite individual by Spinoza. Before discussing this issue, it is necessary to address the basic structure of Spinoza's physical world, i.e., the *corpora simplicissima* and the laws of motion and collision.

The nature of the *corpora simplicissima* is still particularly uncertain and puzzling. Scholars have interpreted this notion formulating different hypotheses. For Alexandre Matheron, they are individuals which are defined only by virtue of their external link with other things.¹²⁹ Martial Gueroult suggested to interpret them in terms of Huygens' model of the pendulum clock. For him, the simplest bodies are like a "pendule simple" which can form other bodies as happens with Huygens' model of the synchronization of pendulums (Gueroult 1974, 159). Marco Messeri (1984) ascribed to the *corpora simplicissima* a real physical status and suggests that they play a similar theoretical role than Descartes corpuscles. Instead, Paolo Cristofolini (1992) argued that these bodies are conceived by Spinoza as a kind of geometrized motion without any material reality

¹²⁸ In particular, Messeri explicitly noticed the speculative nature of all interpretative hypotheses, since there is too little textual evidence (see Messeri 1984).

¹²⁹ The *corpora simplicissima* are for Matheron "des individus qui se définissent entièrement par leur rapport externe à autrui: des individus qui ne sont encore qu'évènements pur" (Matheron 1988, 27).

through which parts of surface are distinct from the others. Recently, Cristina Santinelli (2018) has suggested through a comparison with Hobbes's *conatus* that the simplest bodies are purely intelligible entities which are necessary to grasp the nature of motion and to achieve an adequate understanding of the reality which human beings can observe. These bodies have the function to bridge the gap between the infinite mode of motion and the finite nature of bodies.

All these interpretations are more or less plausible¹³⁰; however, to achieve a certain explanation of the simplest bodies remains difficult, since textual evidence is too scattered, and in the *Ethics* one cannot even find a definition of motion and rest.¹³¹ In any case, Spinoza's aim does not seem to be a full clarification of the simplest bodies or other physical entities. As I have shown, the exposition of common features of bodies and their relationship – also assuming the laws of motion and collision as eternal truths – aimed to shed light on the nature and power of the human mind through a general explanation of the structure of bodies and their way of interacting with each other. These features and the laws of motion testified Spinoza's engagement and acceptance of mechanical principles, but a closer look reveals a metaphysical starting point of Spinoza's argument instead of a strictly physical one. This does not mean that Spinoza neglected physics or other scientific studies, such as the contemporary studies on the human anatomy. Nevertheless, he provided a definition of the simplest bodies or some general laws of motion and collision as axioms, namely as eternal truths, which were

¹³⁰ I incline to agree with Messeri's hypothesis that the simplest bodies are physical entities which play a similar role than Descartes' corpuscles. Indeed, he offered a convincing interpretation according to Spinoza's plenist and anti-atomistic theory of matter and identified Descartes as a plausible source. Moreover, Messeri's reading is consistent with textual evidence and offers many interpretative advantages. According to him, the laws of motion and collision provided by Spinoza seems to be more consistent with a physical conception of the simplest bodies than with a conceptual one (Messeri 1984, p. 74).

¹³¹ It is possible to assume that he takes for granted Descartes' physics, his principles and definitions. Messeri (1990) and D'Amico (2018) shows the continuities between Spinoza's physics and Descartes' one. On the contrary, Peterman argues that "it is clear that he is pressing in several very un-Cartesian directions and directions that seem moreover to be unique among his contemporaries in their methodological commitments." (Peterman 2014, 221)

consistent with his account of substance. This is evident when Spinoza excluded any substantial differences among simplest bodies which “are distinguished from one another by reason of motion and rest, speed and slowness” (EIIp1311) by referring to the *scholium* of EIp15. This statement does clearly fit in with Descartes’s reductionist physical program, but it is demonstrated from Spinoza previous rejections of the common conception of extension in EI15s. Bodies are neither substances nor can be really distinct from each other, insofar as matter does not consist of parts.

Although there still are many problems in grasping the physical individuation of different bodies, at least, for what concerns *corpora simplicissima*, the *Physical Interludes* can be taken as an example of how different things can be discerned within the material world. All physical features of bodies and the laws of motion have to fit in with key metaphysical premises or else are left out of any physical investigation, as one can see with the hypothesis of the vacuum on which the atomist theory rests.¹³² Spinoza’s theory of the simplest bodies confirmed the ontological premises provided in the first part of the *Ethics* but also aimed to clarify the nature of finite modes, in this case the modes which followed under the attribute of extension, within the material world. They can be discerned from each other only through motion and rest, viz. the infinite immediate modes of extension, since there are no substantial parts in extension. Furthermore, they have something in common, insofar as they are modes of the same attribute, namely extension (EIIp1312), which enables a causal interaction among these bodies according to certain universal laws. The third lemma of the *Physical Interludes*, which lays the basis for the principle of inertia, turns out to be nothing else than a physical explanation of the fact that:

Every singular thing, or anything which is finite and has a determinate existence, can neither exist nor be determined to

¹³² The reasons of Spinoza’s criticism of atomism are largely investigated by Laveran (2014), who argued that this is a starting point to understand Spinoza’s redefinition of what singular things are.

produce an effect unless it is determined to exist and produce an effect by another cause, which is also finite and has a determinate existence (EIp28).

The few positive features that we deduce from the notion of the simplest body are enough, on the one hand, to rule out certain physical hypotheses and, on the other hand, to clarify the nature of more complex bodies which are not demonstrated or deduced by Spinoza. Instead, he offers the following definition to clarify what a complex body is:

When a number of bodies, whether of the same or of different size, are so constrained by other bodies that they lie upon one another [*aut diversæ magnitudinis a reliquis ita coercentur, ut invicem incumbant*], or [*vel*] if they so move, whether with the same degree or different degrees of speed, that they communicate their motions to each other in a certain fixed manner [*certa quadam ratione*], we shall say that those bodies are united with one another and that they all together compose one body or Individual, which is distinguished from the others by this union of bodies (EIIp13def).

This passage presents many interpretative problems: if the simplest bodies are distinguished only with respect to their motion and rest, why did Spinoza talk about the “different size” of bodies here? What is the *certa quadam ratione* which characterizes an individual? Is an individual defined through the action of external bodies which concurs some bodies to compose an individual? For the sake of my investigation of Spinoza’s metaphysical cosmology, it is enough to focus on the nature of Spinozistic individuals.

At first glance, the previous definition seems to affirm that it is an external determination which brings the parts to form an individual and, consequently, an individual is defined thanks to the causal action of the external bodies. Consequently, this definition has been considered by some scholars, such as Melamed, too weak to provide a proper individuation of bodies, since it seems to posit a loose and almost

arbitrary criterion to conceive different things as an individual.¹³³ However, such an interpretation is problematic with respect to many other passages. The most evident is Spinoza's explanation of the whole Nature as an infinite individual. If the definition of individuals implies the external pressure of other bodies, the whole nature has to be understood either by means of a different definition or by assuming the existence of something external. Spinoza neither provides another definition of individual nor lets the reader think that the infinite individual is determined by external bodies.

As Francesco Toto (2015) highlights, the Spinozistic definition of an individual is characterized by two meaningful terminological ambiguities. First, *a reliquis* might rightly be traduced as all external bodies but also, if we consider one of the bodies constituting the individual, as all other bodies which compose the individual. Furthermore, the word *vel* has a double meaning and therefore leaves open the possibility to interpret the adherence and the reciprocal communication of motion among the parts either as each sufficient to form an individual or as both necessary (see Toto 2015, 67). Consequently, the main question is whether or not Spinoza reduces his notion of individual to an aggregate whose bodies-parts are constrained together by other external bodies, or if he characterized the body by a more complex relationship among its constituting bodies. Despite the terminological ambiguities in the *Physical Interludes*, the second reading appears more probable given the overall argument presented in the *Ethics* and, I hold, this option is also supported by Spinoza's account of universe in terms of whole-parts relationship.¹³⁴

¹³³ Melamed affirms that according to this definition we could consider as the same individuals really different things as long as we establish some certain relation between the two: "It would seem that, in the case of Spinozistic individuals, just as in that of singular things, it is merely an issue of coming up with the relevant scenario to make any pair of things (e.g., my left hand and Neptune) constitute a genuine Spinozistic individual" (Melamed 2010, 89).

¹³⁴ For a detailed and careful analysis of these passages and their importance for the whole *Ethics* see Toto 2015.

Although individuals clearly need certain external circumstances to exist, they are unlikely defined by their environment as it might *prima facie* appear. Proceeding throughout the explanation of the features of composite bodies or individuals provided by Spinoza, the role of external bodies becomes almost irrelevant to clarify the nature of individuals. For instance, Spinoza explained that the constituting bodies of a complex body can be removed without any change of the complex bodies as long as “at the same time as many others of the same nature take their place” (EIIp13l4). This highlights that: first, an individual does not depend on its constituting bodies but it is independent to them. Second, the passage confirms the possibility of an interaction between the bodies which compose an individual and the external environment. However, this passage does not suggest a dependence of the individual on external bodies. It is the whole-parts relationship that is used by Spinoza to further clarify the nature and features of individuals. He affirms that “as the parts of an Individual, or composite body, lie upon one another over a larger or smaller surface, so they can be forced to change their position with more or less difficulty” (EIIp13ax3). Moreover, “if the parts composing an Individual become greater or less, but in such proportion that they all keep the same ratio of motion and rest to each other as before, then the Individual will likewise retain its nature, as before, without any change of form” (EIIp13l5).

The definition of composite bodies reveals a relevant use of the whole-parts relationship. On the one hand, the individual, which is defined *certa quadam ratione*, is conceived as a whole. On the other hand, the bodies, which compose the individual, are parts of this whole and can be substituted or can change their motion without destroying the individual. Indeed, parts can change their direction, go faster or slower, become bigger or smaller. As long as they still communicate their motion in a certain fixed manner, they will not produce any change in the whole. It is exactly the bodies’ composite motion according to a common ratio that makes them part of the same whole. The relationship through which bodies communicate their

motion and rest to each other is more complex than a simple adherence or the preservation of the same parts but it recalls the whole-parts relationship presented in Letter 32. This was characterized by an internal connection among parts and was not defined by anything external. That the relationship between an individual and its parts is not an external one becomes clear when Spinoza explains it in terms of whole and parts:

Furthermore, the Individual so composed retains its nature, whether it, as a whole, moves or is at rest, or whether it moves in this or that direction, so long as each part retains its motion, and communicates it, as before, to the others (EIIp1317).

The clarification of the relationship between the individuals and their parts help overcome the ambiguity concerning their definition. An individual is not a simple aggregate of bodies which are constrained by other bodies. It can adapt to many different changes without being destroyed. Furthermore, a conception of an individual as an aggregate does not take into account its own production of effects to the external world. This is not spontaneous but complex bodies can act in many different ways according to certain external stimuli. A certain causal power belongs to each individual, as the definition of particular things shows:

By singular things I understand things that are finite and have a determinate existence. And if a number of individuals so concur in one action that together they are all the cause of one effect, I consider them all, to that extent, as one singular thing (EIIdef7).

If it is true that the notion of singular things cannot be reduced to that of individuals, it is also true that each individual is a singular thing, since it is characterized by a certain production of effects according to a certain ratio. These effects are produced both on the external bodies and internal ones, i.e. on its constituting bodies as one might see in the whole nature which produces only effects in itself.¹³⁵ Even though this is not immediately evident from the definition of an

¹³⁵ See Ferez 2007, p. 91.

individual, it is clear enough from all axioms and lemmas which contribute to explain the individuals' nature. When Spinoza distinguished among bodies of different kinds, such as hard, soft and fluid, according to a quantitative aspect, i.e. the lying upon one another over a larger or smaller surface, these differences corresponded to a different capacity to resist external causes without changing the individual's motion or form (EIIp13ax3). A feature that is not irrelevant from a causal point of view, since Spinoza concluded that "the human body can move and dispose external bodies in a great many ways" (EIIp13post6).

The clarification of the general aspects of bodies led Spinoza to offer an account of the whole nature – the *facies totius universi* – which highlighted the existence of different degrees of complexity among things. In Letter 32 Spinoza presented his account of universe starting from the blood, conceived as a whole, to the infinite universe. Furthermore, one might find varying degrees to conceive the causal power of things in the whole universe. In the *Ethics*, these degrees corresponded to different degrees of complexity among bodies which comes to produce common effects together. The more a body is complex, the more it can be affected and to act in many different ways. Spinoza explicitly stated that, according to this view and the correspondence between bodies and minds, each thing is "animated" though in different degrees (EIIp13s).

The aim of the *Physical Interludes* was to support and to clarify this metaphysical statement. On the one hand, Spinoza ruled out an anthropomorphic cosmological view which was clearly inconsistent with his account of God. On the other hand, he had to clarify the specific nature and power of human beings without introducing any substantial criteria. These two necessities led him to offer the following worldview:

But if we should now conceive of another [individual], composed of a number of Individuals of a different nature, we shall find that it can be affected in a great many other ways, and still preserve its nature. For since each part of it is composed of a number of

bodies, each part will therefore (by L7) be able, without any change of its nature, to move now more slowly, now more quickly, and consequently communicate its motion more quickly or more slowly to the others. But if we should further conceive a third kind of Individual, composed [NS: of many individuals] of this second kind, we shall find that it can be affected in many other ways, without any change of its form. And if we proceed in this way to infinity, we shall easily conceive that the whole of nature [*totam naturam*] is one Individual, whose parts, i.e., all bodies, vary in infinite ways, without any change of the whole Individual (EIIp1317s).

The explanation of the whole nature as one individual is not the result of a physical investigation or explanation. Starting from the simplest bodies and proceeding with an explanation of more complex bodies until the whole nature, Spinoza tried to present his own view about the coexistence between the conflictual existence among many different things with different properties and the idea of a fix and universal natural order. By affirming that the whole nature, as an infinite modal whole, corresponds to an infinite mediate mode of extension, Spinoza implicitly clarifies that in no case the whole nature can be subordinated to its parts. Despite the problem of the theory of infinite modes, there is no doubt that the face of the whole universe is infinite and eternal, since it follows from the attribute of extension even though mediated by the infinite immediate attribute of motion and rest.

The explanation of individuals brings to light the importance of the whole-part relationship that Spinoza had already presented in 1665. According to this view an individual, as a whole, neither depends on its parts nor on their speed or size. The *ratio*, which characterizes each individual, transcends its parts. In other words, it is not the existence of parts themselves or their interaction as such which makes possible to define an individual, but the fact that parts are linked in a certain fixed manner. Even though Spinoza does not explicitly talk of universal laws or the adaptation of the nature(s) of parts here, the *Physical Interludes* follows the cosmological view

presented in 1665 to Oldenburg. Indeed, we have an infinite modal whole, namely the face of the whole universe, whose parts vary in many different ways without affecting the whole, namely without changing the ratio of motion and rest of the parts of the whole. This infinite whole is distinguished from the unique substance, since it depends on the latter and is one its infinite modes. However, a similar kind of necessity seems to characterize the whole nature from a physical point of view. In fact, one cannot imagine a body outside the whole of nature, and all individuals are conceived as parts of it. This brings to light that the notion of the order of Nature and that of the whole universe are deeply connected in Spinoza's metaphysical cosmology. If the idea of an order of Nature is understood as the necessary connection of causes [*connexio causarum*], the face of the whole universe seems to correspond to the totality of bodies which act necessarily in a certain fixed manner or, in other words, are connected to each other by a certain causal relationship. Even though Spinoza always used the notion of an order of Nature to refer to the existence of particular things, as Daniel Parrochia (1985) stressed, the order of essences and the order of existences of things are not distinguished in God's intellect. This might also clarify the reason why the notion of "mode" and that of "part" appear interchangeable in Spinoza's mature philosophy. Each mode has a closer relationship with the unique substance, since it depends upon the substance and cannot be conceived without the substance. A similar symmetrical relationship characterizes the whole of Nature and its parts even though with a relevant difference. When Spinoza talked of parts, he did not conceive the nature of each finite thing as a simple mode of the substances, but also in its being connected with all other parts. Consequently, the "whole of Nature," as infinite and eternal, was not only an expression which corresponded to the totalities of bodies or of the universal laws which regulate their action. Instead, since there is nothing outside the whole nature, "whole of Nature" was an expression signifying all possible internal effects produced by the

composition and dynamic connection of each part according to a necessary and eternal order.

As soon as one realizes that individuals are not aggregates but singular things which have a certain power of producing effects outside and inside of themselves, it is clear the reason why Spinoza affirmed that they can vary in many different ways without undermining the consistency of the whole. In Letter 32, Spinoza distinguished between the knowledge *that* each part of Nature agrees with its whole and that *how* each part agrees with its whole. The certain fixed manner, which identifies the whole universe, recalls this distinction of the *Ethics*. What human beings can know or are compelled to think is the certain fixed manner which regulates the way of acting of all bodies in the whole nature. If the knowledge of the order of existence is impossible to achieve for human beings, human intellect enables to grasp the common aspect of the continuous change and destruction of different parts, i.e. the ratio or the laws of nature.

In conclusion, Spinoza's metaphysical cosmology was characterized by a deep connection between a mereological account of the whole nature and the order of Nature. Since the highest individual, the whole nature, was characterized by a certain eternal ratio, it is difficult not to look at the order of Nature as a certain fixed manner. The many different effects, which are produced within the whole of nature according to its *ratio*, are an expression of God's immanent causation. The *connexio causarum* of the order of Nature corresponds to the causal relationship among the parts of the whole nature. This does not mean, however, that each part should be completely reduced to the whole and each thing, including the infinite modes, to God. Before discussing the nature of bodies in the *Physical Interludes*, Spinoza affirmed that "for of each thing there is necessarily an idea in God, of which God is the cause in the same way as he is of the idea of the human Body" (EIIp13s). This means that every body is necessarily produced by God, and that it exists in God. Even though every body is a part of the whole nature, it is a whole at

the same time, since it is characterized by a certain ratio and corresponds to a determined expression of God's power itself. In the *Ethics*, Spinoza attributed to finite things a certain causal power within the whole of nature which enabled to understand what it means to conceive each part of nature as a whole. Such a cosmological view left open the question concerning Spinoza's possible debt with vitalism theory and Aristotle's teleological view, as the different interpretations of the notion of *conatus* show.¹³⁶ Despite this debate, I suggest that Spinoza's account of the individual play a pivotal role to reduce the tension between the action of particular things and the whole Nature by introducing different degrees of complexity and causal interaction. His notion of individual enabled him to discern among different things and different degrees of causal interaction maintaining the unity of Nature and its order at the same time.

¹³⁶ For a teleological reading of conatus doctrine see Garrett (2002), Lin (2019) and Aksoy (2021) and, in a certain way, Sangiacomo (2016) who suggested that the polemical target of Spinoza's critic of final causes is not the Aristotelian teleology as such. Against a teleological reading, which appears inconsistent with his mechanical premises, see Messeri (1990, 144-155), D'amico (2019) and Scribano (Fortcom).

Conclusion

What I have called Spinoza's "metaphysical cosmology" involved many different issues, related on different levels. The basis for Spinoza's philosophical effort was the necessity to elaborate a metaphysical view that made it possible to have an adequate perspective on physical, epistemological and ethical problems. The attribution of extension to God showed the interconnection of the many theoretical, metaphysical, and theological problems implied by the study of the material world. As I have stressed, Spinoza's account of extension as an attribute of God was a statement common to all his works, which followed from the identification of God with Nature. The same cannot be affirmed for Spinoza's account of universe, which was the result of a continuous philosophical effort, which culminated in 1665.

Although in the KV Spinoza already dealt with the argument against divine extension and addressed some physical problems such as the origin of motion, he left open many other issues and did not solve several conceptual ambiguities. For instance, it is difficult to understand the role of the whole-parts relationship in Spinoza's early metaphysics, or how a universal Providence can coexist with the particular things' striving for their wellbeing. In the early years, the problem of the coexistence between the unity of Nature and the existence of many different things was already raised. A clear cosmological view cannot be found in Spinoza until 1665, namely before the development of key conceptual pairs. In particular, the whole-parts relationship became fundamental to explain the relationship between the whole Nature and its parts. Spinoza's physical universe showed an ontological foundation of the whole-parts relationship and underlined a worldview in which different degrees of causal interaction among things could be discerned. Of

utmost importance was the explicit distinction between an infinite modal whole – which did not depend upon, or change in function of the varying of its parts – and the unique substance. The same account of the universe can be found in the *Ethics*, when Spinoza introduced his theory of the infinite modes. In particular, he referred to the notion of the infinite mediate mode and offered an example of it in the *Physical Interludes* of the second part of the *Ethics*. This is the *facies totius universi* which corresponded to the whole physical nature, and was characterized by a certain fixed manner through which all parts communicate their motion. This was nothing else than the fixed and eternal order of Nature, which necessarily follows from God's essence.

To talk of a metaphysical cosmology is important to highlight that Spinoza's account of substance and his account of nature has two different ontological foundation. The former is the cause of itself, while the latter is a mode, even if infinite, which existence depends on the substance. Furthermore, Spinoza offered an example of the connection among different kinds of modes – infinite and finite – from a concrete physical perspective in his *Physical Interludes*. The *Interludes* should not be understood as a complete treatise of physics, but their consideration is important insofar as they highlight the continuity between the metaphysical foundation of things and their physical clarification. With the attribution of extension to God, Spinoza intended to bridge the gap, in his view, between metaphysics and physics, which was left open by Descartes' philosophy and which, according to Spinoza, might have undermined Cartesian natural philosophy. Spinoza neither neglected physical problems nor reduced physics to metaphysics. Rather, Spinoza's metaphysical cosmology concerned different issues and problems, such as the mereological structure of the material world, a conception of laws and of the order of nature or the possibility of an understanding of the material world through the physical world, without contradicting certain metaphysical premises. By taking into account the development of a specific worldview throughout Spinoza's works, it

is possible to grasp the conceptual complexity of Spinoza's account of the whole Nature and his continuous effort to reconcile many relevant metaphysical, physical, ethical and theological aspects. Indeed, the problem of how the existence of infinite many things, which owns different properties, can fit in with the unity of nature, is fundamental in modern natural worldview. However, Spinoza did not limit himself to provide an ontological argument for the existence of many modes. Instead, he offered a concrete physical perspective to show the concrete implications of his novel account of God.

I do not intend to argue that Spinoza's philosophy did not present any difficulty or that some problems, such as the relationship between the unity of Nature and the existence of many different things, can easily be solved. Furthermore, I am aware that I only sketched key problems, such as the relationship between eternity and duration. However, my overall goal was, on the one hand, to show that Spinoza's philosophy cannot be reduced to the monism of substance or the relationship between infinite and finite, as for instance the idealist reading did, but that he also aimed to provide a metaphysical foundation to understand how existing things interacts in the whole Nature. Instead of accomplishing a purely physical investigation and of accepting the separation among different fields, Spinoza tried to offer an encompassing worldview, but also necessary to overcome an anthropomorphic conception of Nature which, in his view, could have had negative theological and ethical consequences. On the other hand, I wanted to show the relevant change in his philosophy after the introduction of the notion of agreement in Nature. This notion became fundamental to explain how bodies can positively interact to each other and form a whole in different degrees. The assumption of an ontological conception of parts and whole or of the notion of agreement did not cause relevant change in Spinoza's account of God. Rather, it changed the conceptual framework of Spinoza's theory of modes to some extent in which Spinoza's metaphysical cosmology was developed.

Part II

Orders of Ideas and Perfection in Spinoza's Account of Human Mind

Introduction

The second part of my dissertation focuses on the development of Spinoza's account of the mind as the idea of an actually existing body from his early writings to the Ethics. For Spinoza, the human mind (just like the human body) is not simple but composed of many ideas. Consequently, my investigation will mainly concern the development of his account of mind and its implications for Spinoza's theory of knowledge.

My overall goal is to study the apparent gap between imagination and reason, which are defined as two kinds of knowledge in the Ethics – following many changes from the early writings onwards. On the one hand, given that, according to Spinoza, the imagination cannot bring about adequate ideas, scholars have rarely investigated whether the imagination can in fact be beneficial in aiding reason and providing adequate knowledge.¹³⁷ On the other hand, in Spinoza scholarship, reason is undoubtedly the most well-studied kind of knowledge of those presented in the Ethics and this because it is fundamental to obtain adequate knowledge of things. As a matter of fact, knowledge obtained by reason appears less problematic than intuitive science (*scientia intuitiva*), i.e., Spinoza's third kind of knowledge.¹³⁸ The distinction between reason and intuitive science has been discussed at large by commentators so far,¹³⁹ while the relationship between Spinoza's account of the imagination and reason merit further study. My aim is to help rethink this latter relationship by showing that the gap between imagination and reason is

¹³⁷ Instead, the practical role of the imagination has largely been highlighted in studies of Spinoza's theory of affects and his political thought. For instance, Étienne Balibar (1985) has focused on the role of the imagination from a political point of view. Susan James (2020) has stressed the importance of the imagination to lay the foundation of the commonwealth by means of historical narratives. Instead, Lorenzo Vinciguerra (2005) has investigated the role of the imagination in Spinoza's theory of signs provided in the Ethics.

¹³⁸ The intuitive science is often defined as one of the most mysterious aspects of Spinoza's theory of knowledge (e.g., Deleuze 1968).

¹³⁹ Inter alia, see Car (1978), Messeri (1990) and Garrett (2018).

sometimes less sharp than it would *prima facie* appear.¹⁴⁰ Indeed, there are some passages in which Spinoza offered examples of a virtuous use of imagination. What I call a “virtuous use of imagination” involves the idea that virtue is one and the same with the power of a thing, and the fact that human beings can increase their power by means of reason. For instance, in Letter 32 to Oldenburg, Spinoza seemed to refer to the imagination as a means to improve an understanding of the human position in the universe, and the relationship between humans and other parts of Nature. As I aim to show, Spinoza’s theory of mind and his theory of knowledge have undergone many changes from the early writings to the *Ethics*. These changes are intimately connected with the notion of agreement developed by Spinoza in 1665. The latter in turn enables one to rethink the conceptual pair adequate/inadequate ideas in terms of whole-parts rather than insinuating a sharp opposition.

To better define the boundaries of my investigation, I focus on two interconnected issues pertaining to the development of Spinoza’s account of the mind and his theory of knowledge: 1) Spinoza’s rejection of any imperfection in human nature; 2) the relationship between the fixed and eternal order of Nature and the order of ideas. In the *Ethics*, the fixed and eternal order of Nature is distinguished from the common order of Nature [*communis naturae ordo*] the latter of which corresponds to the order of ideas established according to bodily affections caused by external things. In other words, the former corresponds to the necessary and infinite connection of causes following from God’s essence which can be known by means of reason, while the latter refers to the order and connection of external causes established by means of the imagination. The common order of nature established by means of the imagination can only offer a “confused” and “mutilated” knowledge of the human mind and of external things (EIIp29s), while human beings, by means of reason,

¹⁴⁰ A few commentators go in this direction: see, e.g., Verbeek (2009) and Hervert (2012).

can obtain adequate knowledge of the connection of causes and common features of things.

In early modern philosophy, the cognitive capacities of the human mind were deeply related to the theological and epistemological question of the limits of human knowledge after the Fall,¹⁴¹ and to the investigation of the structure and constitution of human bodies. In his works, Spinoza explicitly dealt with the biblical narrative of the corruption of human nature, but he firmly rejected the idea of an intrinsic imperfection of the human mind. Furthermore, Spinoza's investigation into the nature and power of the mind in the *Ethics* was deeply connected with the question of what a body can do. Consequently, I will pay special attention to two sources (thus far by and large neglected) that I consider highly relevant for the development of Spinoza's thought: Francis Bacon's theory of idols, historical method and idea of a "medicine of the mind"; and Descartes' *Treatise on Man*, published posthumously in 1662, and its reception in the context of the debates about physiology at the beginning of the 1660s.

So far, Spinoza's account of the mind and his theory of knowledge¹⁴² have received most attention. This is due to the importance of what is usually called "body-mind parallelism," as it is presented in EIIp7 (Bennet 1981; Della Rocca 1996, 18-43). This is one of the most relevant issues in Spinoza's studies, since it is taken as his rejection of Descartes' dualism of mind and body. Indeed, the theory of mind-body identity is often considered as Spinoza's solution to the problem of the mind-body interaction, which was left

¹⁴¹ Harrison (2007) has suggested that the idea of an imperfection after the Fall was more relevant than the Skepticism as argued for by Richard Popkin (2003) for the development of the early modern experimental science. In particular, Harrison claimed that Francis Bacon's scientific program and that of the Royal Society was deeply influenced by the issue of the Fall. More generally, Harrison contended that this issue did not only play a key role in theological and political debates, but also in scientific ones, when philosophers tried to restore the knowledge of the first man, Adam, before the Fall. In Harrison's view, this debate was especially relevant in the English Calvinist framework. On the relationship between science and religion see also Jacob (1976).

¹⁴² See, e.g., Gueroult's (1974) careful analysis of second part of the *Ethics*. Recently, Eugene Marshall (2014) has focused on Spinoza's definition of the mind as a "spiritual automaton."

open by Descartes' philosophy. Moreover, as Steven Nadler (2005) has pointed out, it also had a fundamental important function as the basis for a rejection of the theological doctrine of the immortality of the soul. However, as Chantal Jaquet has pointed out, the term 'parallelism' is misleading, insofar as Spinoza took the two different ways of expressing God's existence, i.e., the modes of extension and thought, to be identical. This correspondence between ideas and things, in turn, depended on the fact that God's power of acting and thinking is one of the same without exception. This, however, does not imply the existence of two parallel orders of reality, which could be fully translated into each other, but merely the ontological equivalence of God's attributes (Jaquet 2004, 21-46). Despite these disagreements, scholars have generally acknowledged the pivotal role of mind-body identity in Spinoza's rejection of Descartes' dualism, and its importance from an epistemological, a theological and a scientific standpoint.¹⁴³

However, Spinoza's early theory of mind as presented in the TIE reveals many differences compared to that of the *Ethics*. For instance, in the TIE, Spinoza sometimes used the term "intellect" to refer to the whole mind as well as the term "animus" which is absent from the *Ethics*. This terminological and conceptual difference makes it difficult to have a clear idea of Spinoza's account of the mind and its relationship with the body. Furthermore, the odd vocabulary characterizing Spinoza's early account of the mind goes hand in hand with a different theory of knowledge compared to the one expressed in the *Ethics*. In the TIE, Spinoza talked of four kinds of perception, and the third one, which reminds of reason in the *Ethics*, does not ground a true understanding of things (Mignini 1983, 13-35). Finally, Spinoza's conception of the mind in the TIE and in the KV was deeply influenced by Descartes' dualism and by contemporary

¹⁴³ A broader investigation of the relationship between Descartes' and Spinoza's mind-body theories has been undertaken by Santinelli (2000). Nadler (2005) has stressed that Spinoza's rejection of Descartes dualism was not due only to a metaphysical or epistemological disagreement, but also a theological one concerning the immortality of the soul.

Cartesian debates. Even though the KV shows points of continuity with the *Ethics*, in the early work the rejection of body-mind dualism is less straightforward than in the mature work, since mind-body interaction is relevant to several passages. The theory of mind-body correspondence is only sketched in a note of the second part of the KV, and explained more broadly in the second appendix. However, some passages are ambiguous with respect to a possible determination of the body by the mind.¹⁴⁴ Furthermore, in both works Spinoza embraced a version of ethical intellectualism derived from Descartes' epistemology. In light of this view, true knowledge is necessary and sufficient to restrain the passions and obtain the Supreme good (Sangiaco 2015). Consequently, Spinoza's early account of the mind and his theory of knowledge differ from his mature works in several key respects. These epistemological differences also implied different ethical views in comparison to the *Ethics*.

In the TTP and in the *Ethics*, the constitution and affections of the human body receive more attention than in the early writings. This is most clearly reflected by Spinoza's late account of imagination,¹⁴⁵ his theory of affects (Jaquet 2004, 77-118), and the introduction of the notion of *conatus*.¹⁴⁶ In the *Ethics* Spinoza expounded his theory of a mind-body correspondence, and explained the nature and power of the mind starting from a physical exposition of the general features of the body. His conception of the mind-body relationship did not only have relevant ramifications for his explanation of the cognitive processes and his theory of errors, but

¹⁴⁴ Messeri (1990) has stressed that, in Spinoza's early writings, intellectual perception is often conceived as an action of the body on the mind, and that volitions are conceived as an action of the mind on the body. Garber (2005) has rightly stressed the influence of Cartesian debates in Spinoza's early works, where the rejection of the mind-body interaction is less straightforward than in the mature ones.

¹⁴⁵ The most important studies on the development of Spinoza's imagination are Mignini (1981) and Bostrenghi (1996).

¹⁴⁶ See, again, Scribano (2012) on the development of Spinoza's notion of *conatus*. Furthermore, it is important to consider that the *conatus* – namely the striving of a thing to preserve its own being – does not only concern bodies, but also minds (see Lenz 2017).

also for his distinction between three different kinds of knowledge, i.e., imagination, reason and intuitive science.¹⁴⁷

Spinoza's account of the body-mind relationship and his theory of knowledge in the *Ethics* have been thoroughly investigated following different approaches, and by relying on different complementary sources. However, less attention has been paid to a chronological investigation of Spinoza's works to shed light on the reasons and sources of the development of his account of the mind and of his theory of knowledge. Sangiacomo (2019) is one of the few exceptions. He clarified the conceptual framework underlying Spinoza's account of reason, the passions and the Supreme Good throughout the development of his thought. Likewise, Scribano (2015) has suggested that the posthumous publication of Descartes' *Treatise on Man* in 1662 inspired Spinoza's account of imagination in the *Ethics* as it did in the case occasionalist authors, such as Nicolas Malebranche, Louis de La Forge and Géraud de Cordemoy. Other scholars have suggested that Hobbes might have influenced Spinoza's intellectual development not only from the perspective of his political works; but an in-depth investigation of this link is missing so far.¹⁴⁸

My investigation aims to contribute in two significant ways to the aforementioned debates regarding Spinoza's conception of the mind in relation to the body: first, I will clarify Spinoza's theory of the mind and knowledge, and particularly his account of the relationship between imagination and reason in the different conceptual frameworks provided by its works. Furthermore, I will suggest that the notion of agreement and the conceptual pair whole/parts

¹⁴⁷ Recently, Karolina Hübner (2019) has addressed the problem of intentionality in Spinoza's account of the mind-body relationship, and has rejected any materialist interpretation to defend the consistency of Spinoza's epistemology and metaphysics that, in her view, were jeopardized by establishing an explanatory or an ontological dependence of mind on an extra-mental reality.

¹⁴⁸ In particular, the influence of Hobbes's *De corpore* on Spinoza's thought is highly controversial. Santinelli (2018) has made reference to a possible influence of Hobbes on Spinoza's physics and on his notion of conatus. Scribano (2012), Sangiacomo (2013) and Jaquet (2004) have also accentuated the importance of Hobbes for the development of Spinoza's thought. A broader comparison between Hobbes and Spinoza has been provided by Lazzeri (1998), addressing their accounts of reason and passion in detail.

developed in 1665 are fundamental to understand Spinoza's power of the mind and the relationship between imagination and reason in the *Ethics*. Secondly, on this basis, I will reassess the question of Descartes' and Bacon's influence on Spinoza's theory of knowledge. In particular, Bacon's influence on Spinoza's account of the imagination and theory of knowledge has so far been neglected given that Spinoza has always been considered to underestimate the role of experience in achieving true knowledge. Scholars have acknowledged that the young Spinoza offered an investigation into the true philosophical method necessary to emendate the intellect inspired by Bacon (Mignini 1983, 23). Spinoza also stressed the importance of having an "operative science" for improving human wellbeing (Pousseur 2000, 34) and emphasised that prejudices exert a powerful influence on human mental life (Giglioni 2016). Although commentators have identified possible Baconian ideas in Spinoza's works, on the whole Bacon's influence on Spinoza's *Ethics* remains understudied.¹⁴⁹

This second part of my dissertation is divided into four main chapters. In the chapter four, I prepare the field for the chronological study of Spinoza's works and his sources by presenting an overview of key metaphysical, theological, and physiological issues concerning the nature of the human mind. First and foremost, I will show Spinoza's disagreement with Bacon's idea of an intrinsic imperfection of the human mind by focusing on Spinoza's Letter 2 to Oldenburg of 1661. I will then point out in how far Spinoza's interpretation of Adam's Fall from Eden differs from the traditional interpretation of this biblical story by focusing on his exchange with Van Blijenbergh and on his TTP. I will demonstrate that Spinoza rejected the idea of a corruption of human nature and its moral and epistemological implications. Thirdly, I will study Bacon's idea of a purification of the mind and his theory of errors not only in order to

¹⁴⁹ There are only a few exceptions to this trend: Van Cauter (2016) argued that Spinoza relied on Bacon's civil history for providing his own provisional morality. Selcer (2013) offered a comparison between the Baconian *scientia operativa* and the Spinoza's *scientia intuitiva*.

introduce the reader to his philosophical project, but also in order to enable a critical assessment of Spinoza's reception of Bacon in the chapters to follow. Finally, I deal with Spinoza's interest in medicine and sketch the physiological debates that to place in his proximity, arising in particular from the posthumous publication of *Treatise on Man* in 1662 which has been acknowledged only recently.

In chapter five, I begin my chronological analysis of Spinoza's works starting from his early theory of the mind and knowledge in the TIE and KV. My goal is to clarify Spinoza's theory of the mind and knowledge, its problems and his possible indebtedness to Descartes and Bacon. Since the TIE also refers to the human mind by using terms such as "intellect" and "animus," I will bring to light the textual ambiguity regarding the definition of the object of the emendation. This brings us to the question of whether the emendation concerns only the intellect or the mind as a whole. Furthermore, as some scholars have stressed, Spinoza seems to follow (to some extent) Bacon's idea of a purification of the intellect. Indeed, two of the four kinds of perception presented in the TIE seem to be inspired by Baconian elements. Finally, there is the issue of the self-sufficiency of the human mind, which, according to Spinoza, seems to be able to achieve adequate knowledge and the Supreme Good on its own, independently of any social interaction. This has important epistemological and ethical implications which underscore Spinoza's indebtedness to Descartes's epistemology and, to some relevant extent, Descartes' theory of mind. I will show that only in the KV did Spinoza provide an (albeit vague) explanation of the human mind-body relationship in terms of correspondence. In both the TIE and the KV Spinoza maintained that interaction between mind and body is possible. This possibility, however, is ruled out in his mature works. Finally, Spinoza's explanations of fictitious ideas in the TIE provides an interesting perspective to address the problem concerning a possible dialectical relationship between adequate and inadequate ideas which turns out to be fundamental to understand the positive relationship between imagination and reason in the mature works.

In chapter six, I focus on the relationship between imagination and reason from 1662, the year of the publication of Descartes' *Treatise on Man*, to 1670, when Spinoza published the TTP. My aim is, on the one hand, to highlight what some scholars called Spinoza's discovery of the science of imagination and its bodily component, and, on the other hand, to investigate some passages in which the imagination seems to aid an adequate understanding of things and has a virtuous function. Even though Spinoza does not talk of fictitious ideas any longer, he still makes use of thought experiments. This, in turn, shows that a useful coexistence between adequate ideas and imaginary scenarios is possible. First, by focusing on a few letters written between 1663 and 1667, I intend to shed light on the development of Spinoza's account of the imagination which is not only explained in opposition to the intellect, but in relation to the constitution of the body and as a power of the human mind.

Secondly, I will analyze the relationship between imagination and reason in the TTP. More specifically, Spinoza's explanation of superstition and the delirium of the mind as well as the presence of the imagination in the case of prophets reveals that Spinoza paid more attention, in comparison with his early writings, to explain the mechanism of the imagination by virtue of the constitution of the body. Spinoza's analysis of prophetic knowledge reveals that the imagination cannot provide certain knowledge of things alone, but that it can provide knowledge of certain ethical matters by means of true signs or ideas of reason. Finally, by investigating chapter XVI of the TTP, I give an example of the positive coexistence of human reason and imagination which enables human beings to live together and which lays the foundations of the republic.

In chapter seven, the last chapter of the second part, I bring to a close my chronological of Spinoza's works by focusing on the *Ethics*. Here, Spinoza formulates his thesis of body-mind identity which rests on the idea of a correspondence between the order of ideas and that of things. The mind is conceived as the idea of an actually existing body. Consequently, the explanation of the mind's nature and its features

rests on the explanation of universal general aspects provided in the *Physical Interludes*. After having taken a stand in the debate concerning the meaning of Spinoza's thesis of body-mind identity, I argue that Spinoza provides two interconnected perspectives to explain the nature and power of the human mind. On the one hand, the first thirteen propositions of EII clarify the ontological and metaphysical nature of the mind as a mode of God. On the other hand, Spinoza made systematic use of the whole-parts relationship in the *Physical Interludes* in order to explain the cognitive power and limits of the human mind as a part of nature.

Second, I focus on the similarities between Descartes's *Treatise on Man* and Spinoza's account of the imagination, but also stress the many differences between the two. These might have been caused by Spinoza's positive reception of Steno's criticism of Descartes' physiology. This will enable us to clarify the main aspects of Spinoza's mature account of the imagination as a power of the mind and its mechanism deeply rooted in the mereological structure of the human body. From this point of view, it is possible to see that Spinoza does not consider the imagination the main cause of error anymore, but that he also stressed its being partly an expression of human power. In conclusion, the distinction between two different ways of ordering ideas shows that the connection between Spinoza's novel account of imagination and reason (as grounded in common notions), is based on the notions of agreement and disagreement. In other words, the distinction between imagination and reason is deeply related to the different degrees of agreement and disagreement and Spinoza's whole-parts relationship. While inadequate ideas provided by the imagination are due to a disagreement between human beings and other things – which is expressed by the lack of knowledge of external causes –, adequate ideas provided by reason necessarily follow from the agreement between human beings and other things – this corresponds to a certain completeness of knowledge concerning the causes and common features of certain bodies. This means that imagination and reason are not mutually exclusive, but that the

imaginative representations of things are kept when the human mind has adequate ideas.

Chapter 4

On the Corruption and Constitution of the Human Mind

In this chapter, I offer an overview of the metaphysical, theological, and physiological issues raised by the consideration of the nature of the human mind. I begin with Spinoza's critique of Descartes and Bacon which he formulated in Letter 2, written to Oldenburg in 1661. Spinoza's arguments show the interconnection between three major problems: (1) the metaphysical question of the relationship between God and the material world; (2) the issue of the true nature of the human mind; (3) the epistemic question of the true cause of error according to Spinoza's philosophy. Moreover, Letter 2 offers an important point of view on the development of Spinoza's thought, since by 1661 he had already composed the TIE and, probably, also the *Short Treatise*, while leaving both works unfinished. Consequently, Letter 2 presents a moment of transition between the Spinoza's early and late writings. Furthermore, Spinoza here criticized both Descartes and Bacon: in particular, interpreters have interpreted this text as a testimony to Spinoza's rejection of Bacon's philosophy. As we will see, however, Spinoza's criticism of Bacon's theory of idols concerned only the first kind of idols, namely the "idols of the tribe," which are intrinsic to the human mind.

This will lead me to briefly present the theological debate on the (im)perfection of human nature after the Fall, and its influence on key epistemological issues of the seventeenth century. Indeed, what seems at first to be a purely epistemological issue in Letter 2, viz. the problem of cognitive errors, can be related to different anthropological and theological assumptions. This is also reflected in

Spinoza's stance against Calvinist views such as that of Van Blijenbergh and Van Velthuysen.¹⁵⁰

After the clarification of the target of Spinoza's critique and of its theological aspects, I will briefly address the circulation of Bacon's works in the Netherlands and clarify which of Bacon's works Spinoza was surely familiar with, and in what contexts he referred to Bacon. Moreover, I will present key aspects of Bacon's account of imagination, of his philosophical project and his historical method.

I will conclude this chapter by addressing the reception and importance of the posthumous publication of Descartes's *Treatise on Man* in the Netherlands. This work, published in 1662, played a decisive role to change Spinoza's focus on the constitution of the human body (Scribano 2015). But the most relevant aspect is Spinoza's familiarity with these debates and his interest in medicine, despite the apparent absence of this topic in his works.

4.1. Spinoza on Descartes' and Bacon's Errors

Spinoza's *Correspondence* begins with a letter of Henry Oldenburg written in August 1661. After his visit in Rijnsburg, Oldenburg wrote to Spinoza to continue their philosophical exchange, and ask for a further clarification on two issues which they had discussed in person:

In particular I should like to be instructed on these two points: first, in what do you place the true distinction between Extension and Thought; second, what defects do you find in the Philosophy of Descartes and [in that] of Bacon, and how do you judge that they can be removed and replaced by sounder views (Letter 1).

These two issues are deeply interconnected. The first question does not only concern a distinction between two attributes, but also indirectly the problem of the interaction between different attributes and, in particular, the mind-body one left open by Descartes'

¹⁵⁰ See Harrison (2008) who suggests that the theological debate on the Fall of man is fundamental to understand the origins of the English experimental philosophy in the seventeenth century. Besides the well-known theological and political importance of Calvinism, an investigation to verify the historical relevance of this interpretation is missing within respect to the Dutch context.

philosophy. On the one hand, Spinoza provides his own definition of God and his attributes and offers a clear, but not definitive, account of substance on which his conception of the human mind and nature rely. On the other hand, he criticized three aspects of Bacon's and Descartes' philosophy which can be noticed in the light of his previous explanation of God, attributes and things. The three errors are:

The first and greatest error is that they have wandered so far from knowledge of the first cause and origin of all things. Second, they did not know the true nature of the human Mind. Third, they never grasped the true cause of error. Only those lacking any education or desire for knowledge will fail to see how necessary the true knowledge of these three things is. That they have wandered from knowledge of the first cause and of the human Mind may easily be inferred from the truth of the three propositions mentioned above, so I restrict myself to showing the third error (Letter 2).

Descartes' and Bacon's first common error is similar, insofar as both excluded – although to different extents – the possibility of a complete knowledge of God's nature, and thus undermined the unity of Nature by separating God from the material world. Furthermore, both philosophers assumed the existence of different beings or substances.¹⁵¹ Although Descartes committed himself to a proof of God's existence and affirmed that human beings have a clear and distinct idea of God, he also affirmed that this knowledge of God's nature is limited and the cause of divine actions are unintelligible to human beings (Santinelli 2000, 27-28). Instead, as Jaquet (2005) pointed out, Bacon excluded as a matter of principle any possible knowledge of God's essence and attributes, since he limited his projects to the understanding of the natural world within the limits of religion and theology. According to Bacon, human beings might achieve only indirectly an understanding of God's power by

¹⁵¹ I talk of different beings or substances, since Spinoza's terminology is ambiguous in his early writings, although he had already identified God with Nature, and posited the unity of Nature.

investigating the created world, but God's will and nature are beyond the objects of the natural science (Jaquet 2019, 4-5).

Spinoza clearly rejected Descartes's conception of God, intended as a transcendent lawgiver, as well as Bacon's philosophical approach and theological premises. Instead, Spinoza affirmed that human beings can and should aspire to achieve a true knowledge of God by means of their intellect, since this knowledge corresponds to the Supreme Good.¹⁵² While Descartes and Bacon separated God and his creation, Spinoza identified God with Nature and conceived It as the efficient cause of everything.¹⁵³ Human beings cannot know God's power without understanding Its essence, and without acquiring a true definition of It. In sum, Descartes and Bacon's first error consisted in failing to provide a true definition of God, thus directing human beings far from the highest knowledge that they can achieve, i.e., the knowledge of God.¹⁵⁴

The second error, which consisted in misunderstanding the nature of the human mind, is a consequence of the first one. For Descartes, the idea of God is deeply connected with the knowledge of the self, as one might see in the *Meditations*. Here, the proof of God's existence in the third part comes after the *cogito*. In sum, human beings can have a clear and distinct idea of themselves as thinking substances and then, they acknowledge that an infinite perfect being – namely God – must exist, since they cannot be the formal or eminent cause of the idea of infinite. Even though a reflexive approach is present also in Spinoza's TIE, that is his first and unfinished work, the knowledge of God cannot be mediated through the knowledge of the self because of God's incommensurability compared to the human finite mind.

¹⁵² This is a *leitmotiv* of Spinoza's philosophy as one might see in all his works, although there are changes concerning the way in which human beings can achieve this knowledge (see Sangiacomo 2019).

¹⁵³ In the *Ethics* God is even the cause of Itself. This is less clear in Spinoza's KV in which God and Nature are defined as uncaused.

¹⁵⁴ It is important to notice that Descartes recognized that human beings have a clear and distinct idea of God, through which he can prove the existence of God. However, Descartes admits that the human idea of God might provide only a limited, albeit true and essential, knowledge of God's essence (*Meditations* part III). A broader analysis of Bacon's first error can be found in Jaquet (2019, 3-10).

Moreover, the human mind is not a self-sufficient substance but a mode of the unique substance. Consequently, it depends on God, as the unique infinite substance, both ontologically and conceptually. Finally, Descartes' mind completely differs from the body, since it is simple, self-determined and has an ontological priority over its ideas. In the *Ethics*, Spinoza clearly affirmed that the mind is the idea of an actual existing body and complex, insofar as it consists of many ideas.¹⁵⁵

Bacon's error in conceiving the mind is similar to Descartes', insofar as for Spinoza Bacon could not achieve an adequate knowledge of God, and did not conceive the human mind as a mode of the unique substance either. Moreover, it is important to notice that Spinoza also criticized Bacon as this latter "often takes the intellect for the Mind" (Letter 2).¹⁵⁶ Assuming – although the issue is not directly addressed in this letter – that Spinoza conceived the mind as the idea of an actual existing body, namely as a finite and determinate mode of God's attribute of thought,¹⁵⁷ it is clear that there is a deep and intrinsic connection between God and the human mind that enables, in principle, human beings to achieve an adequate knowledge of God's nature. Moreover, the mind and the intellect are distinguished, since the former consists in the intellect, meaning its adequate ideas, and in the imagination, meaning the inadequate ideas. In Spinoza's view, as Descartes and Bacon separated the human mind from its cause, they could not know its nature; this also undermined the possibility to know the mind's power, which is the same as God, even though in a determined form (EIp25c).

¹⁵⁵ See EIp13 and p17. An analysis of Spinoza's radical criticism of Descartes' account of mind can be found in Messeri (1990, 176-227).

¹⁵⁶ This criticism indirectly highlights a fundamental change from the TIE. Indeed, as I will show, Spinoza's conception of the mind and its faculties is ambiguous in the TIE and he seems to make the same error that he attributes to Bacon here. Hence, it is clear that Spinoza had already clarified his notion of mind before writing Letter 2, and this sheds light on the development of Spinoza's conception of the mind and its powers in his works.

¹⁵⁷ See KV II 1, KV App2 and EIp13.

Finally, Descartes' and Bacon's third error, i.e., their misunderstanding of the true cause of cognitive errors, was a consequence of the first two errors. While Spinoza offered some examples of Bacon's error, in the beginning he did not add anything to explain Descartes' one. However, after introducing some causes of human errors according to Bacon, Spinoza affirmed that "the other causes he assigns can all easily be reduced to the one Descartes gives: the human will is free and wider than the intellect" (Letter 2). It is evident that Spinoza referred here to Descartes' argument, presented in the *Meditations*, in which an infinite will leads human being to overcome the limits of human finite intellect. In general, Spinoza rejected the distinction between the will and the intellect even with respect to God.¹⁵⁸ I will address this issue in the following chapters of this part through a chronological analysis of Spinoza's works. For the time being, it is enough to highlight that Spinoza attributed the identification of the will as the main cause of errors to both Descartes and Bacon. This reduction of Bacon's conception of error to Descartes' one is at least problematic since, historically, Bacon's account of will did not correspond to Descartes' one. However, Spinoza's previous reference to other specific causes of errors provided by Bacon reveals that Spinoza quoted or rephrased some passages of Bacon's *Novum Organum* which concerned Bacon's theory of idols:

I shall say little about Bacon, who speaks quite confusedly about this, and proves hardly anything, but only makes assertions. For he supposes:

(I) That in addition to the deceptiveness of the senses, the human intellect is deceived simply by its own nature, and feigns everything from the analogy of its own nature, not from the

¹⁵⁸ Spinoza's rejection of a distinction between God's will and his intellect is already present in the KV and clearly expressed in the preface of Spinoza's *Principles of Cartesian Philosophy*. In the *Ethics*, Spinoza clearly rejected the intentional nature of Descartes' mind and the explanation of ideas in the light of their relationship with the mind. For Spinoza, there is no distinction between the content and an act of the mind through which we can distinguish between different kinds of ideas (see Messeri 1990, 181-82).

analogy of the universe, so that in relation to the rays of things it is like an uneven mirror, which mixes its own nature with the nature of things, etc.

(2) That the human intellect, of its own nature, is inclined to abstractions, and feigns to be constant things which are fleeting, etc.

(3) That the human intellect is unquiet, and can neither take a stand nor rest. (Letter 2)

For Spinoza, Bacon's theory of the idols did not provide an explanation of the cause of cognitive errors, but his assertions are based on the idea that the human intellect, and consequently the human mind, is deceived simply because of its own nature. However, a brief comparison with Bacon's *Novum Organum* clarifies that Spinoza's target is not Bacon's theory of idols as such. On the one hand, the first reference to Bacon in the previous passage shows that Spinoza would have agreed with Bacon's idea that the senses alone do not provide an adequate understanding of natural things and the errors that arise from human sensibility are deeply connected with external causes. On the other hand, Spinoza criticizes Bacon's idea that the human intellect is "deceived by its own nature" too. The second and third references have the same target. For Spinoza, Bacon's main mistake is the attribution to the nature of human intellect an intrinsic inclination to err, and also to form abstractions and fictions. In sum, Bacon's third error depended on the fact that he put in the intellect itself an intrinsic and inevitable cause of error. This introduced an imperfection or deficiency in the human mind itself.

A brief look to Bacon's theory of idols shows that imagination is the main source of error, although, in some passages of the *Novum Organum*, he seemed to suggest that the intellect itself might be the cause of some errors. In brief, Bacon distinguished among four kinds of idols which are distorted and distorting representations of reality (Gigliani 2011, 120): 1) The "Idols of the Tribe" concern the errors rooted in human nature itself (NO, I, 41); 2) the "Idols of the Cave"

are errors that belong to particular individuals, since they have passions, habits and are educated in a certain way (NO, I, 42); 3) the “Idols of the Market” are primarily caused by the commerce among human beings and rely on a wrong use of words. This kind of idols arises when “words are applied according to the capacity of ordinary people. Therefore, shoddy and inept application of words lays siege to the intellect in wondrous ways” (NO, I, 43). 4) The “Idols of the Theatre” depend on the passive acceptance of dogmas, particularly philosophical ones that are introduced into the intellect and undermine its power of reasoning (NO, I, 44). In particular, the *Idols of the Tribe* can easily support Spinoza’s interpretation:

Idols of the Tribe are rooted in the human nature itself and in the very tribe of race of men. For people falsely claim that human sense is the measure of things, whereas in fact all perceptions of the sense and mind are built to the scale of man and not the universe. And the human intellect is to the rays of things like an uneven mirror which mingles its own nature with the nature of things, and distorts and stains it (NO, I, 41).

It is important to notice that Spinoza’s criticism referred only to this kind of idols (Jaquet 2019, 13). None of the other three kinds of Idols, namely those of the Cave, of the Market and of the Theater, implies or clearly suggests that the human mind or intellect is deficient regarding its own nature. Rather, these kinds of errors can be easily explained through non-innate and external causes. Spinoza’s rejection of Bacon cannot therefore be generalized, since he would have clearly agreed with Bacon that the partiality of senses, certain passions, dogmas, words, habits and prejudices can hinder human beings to achieve an adequate knowledge of things. Rather, Spinoza’s specific criticism of Bacon mainly concerns the question of the perfection of the human mind, which is deeply connected with the explanation of the cause of epistemic errors. Indeed, Spinoza firmly argued that human minds are a mode of God, that they express Its power of thinking in a determined way, and that human beings can achieve an adequate knowledge of God. All this excludes that the

cause of error is in the mind itself or the idea of the intrinsic imperfection or corruption of the human faculties. Consequently, Spinoza's criticism is not only based on different metaphysical premises, but is also connected with different theological premises and their implications.¹⁵⁹

Spinoza's interpretation of Bacon focused on the fact this latter did not explain the cause of cognitive errors but assumed that the intellect errs because of its own nature. From Spinoza's point of view, Bacon started from the premise that the human epistemic errors are inscribed in the nature of the mind itself. Whether this position can really be attributed to Bacon is debatable?¹⁶⁰ Harrison (2007) has suggested that one of Bacon's theological premises is the idea of the imperfection of the human nature after the Fall of Adam and his philosophical projects aims to restore the original, but lost, cognitive power of human beings. As a matter of fact, such theological premises had relevant epistemological implications in Bacon's and in the Royal Society's scientific program.

In the next section, I take the cue from Harrison's interpretation to sketch two different philosophical approaches to the issue of the nature and power of the mind. These two approaches are as follows: first, the idea of a restoration of the lost original nature and cognitive power of human beings after the fall; second, the idea that the human mind can be cleared from errors on its own account without attributing to it any intrinsic imperfection. I think that this distinction between two different approaches enables to shed light on Spinoza's interpretation of Bacon's method, his juxtaposition with Descartes's philosophy, and the theological roots of the epistemic problem of human knowledge.

¹⁵⁹ It might be discussed whether Bacon's theological assumptions have an epistemological (the incapacity of knowing) or only moral (the duty of repairing the original sin) dimension. (See Harrison 2007 and Georgescu 2010)

¹⁶⁰ Corneanu and Vermeir (2012) address Bacon's distinction of different faculties: memory, imagination and intellect. They clarify which function these faculties have and show the reason why the imagination is the main source of errors. However, they do not deny explicitly that the intellect is free from errors. Jaquet, in contrast, suggests that the intellect too is the cause of some idols, i.e. the idols of the tribe (Jaquet 2010, 207).

4.2. Restoring the Perfection of the Human Mind

In his book *The Fall of Man and the Foundation of Sciences* (2007), Peter Harrison investigates the theological roots of the English early modern experimental philosophy. He suggests that there are two different conceptions of the human nature which determined two main scientific approaches: 1) a positive one, in which human beings could acquire knowledge and merit on their own account, which was deeply influenced by the Thomist interpretations of Aristotle's works, and 2) a negative one, in which human ignorance is the result of the corruption of human nature after the fall of man. The latter approach is deeply connected with the revival of the Augustinian anthropology and largely embraced in Calvinist contexts.¹⁶¹ Harrison aims to show that this second conception of human nature has deeply influenced the agenda of the English early modern experimental philosophy and, more generally, the primary importance of religion, morality and political philosophy for the discussion of knowledge and its foundations (Harrison 2007, 87). As a paradigmatic case study, Harrison tackles Bacon's scientific program, its connection with Calvinist contexts, and its influence on the experimental program of the newborn Royal Society. The idea of a restoration of human nature and knowledge through a labored and continuous effort plays a key role in Bacon's works. This assessment of the fall of man is opposed by Harrison to the Thomist one, and also to the Cartesian rationalist one, in which human beings can achieve a rational understanding of the natural world only by means of human natural light.¹⁶²

For the sake of my investigation, there is no need to offer arguments that validate Harrison's historical reconstruction, or to

¹⁶¹ Harrison pointed out that Descartes was deeply influenced by an Augustinian conception of the free will, but less interested in his anthropology and interpretation of the original sin (Harrison 2007, 52-88).

¹⁶² One might argue that Bacon's project was not aimed to restore the original power of human nature, but to increase and perfection human nature, beyond its actual limits, in order to gain power over nature and other human beings. This latter interpretation appears closer to what Harrison defines "a long-standing view, first articulated by French philosophes, that associates the origins of science with a new and unqualified faith in the powers of reason" (Harrison 2007, 249)-

verify the exactness of his interpretation of Bacon's works. It will be enough to highlight a few theological aspects of the problem of human error. As I have shown, Spinoza firmly rejected Bacon's idea of an intrinsic imperfection of the human mind in Letter 2 to Oldenburg. However, Spinoza seemed to share Bacon's ideas of clearing [*expurgo*] the human intellect from prejudices and of acquiring a model of human nature through sciences in the TIE. I think that the distinction between two different conceptions of the human nature, on the one hand, clarifies Spinoza's interpretation of Bacon's theory of errors and, on the other hand, leaves open the possibility to investigate Bacon's influence on Spinoza's works. The main question is how Spinoza used and interpreted different aspect of Bacon's philosophy in different works and contexts. In this chapter, I limit myself to highlight the theological and moral relevance of the debate on human nature in Spinoza's cultural framework and his interpretation of the biblical story of Adam's original sin. I postpone the investigation of Bacon's actual influence in Spinoza's works to a further section.

The correspondence with Van Blijenbergh provides a clear overview of the importance of the theological and moral issues concerning the perfection and corruption of human nature. In 1664, after reading Spinoza's *Descartes Principles of Philosophy* Van Blijenbergh wrote to Spinoza asking for some clarifications. His main concern soon turned out to be the moral and theological consequences of the idea that God is not only the cause of the existence of the soul, but also in relation to every motion of the soul. According to Van Blijenbergh, Spinoza's thesis is particularly problematic in relation to the problem of the evil:

From this assertion it also seems to follow necessarily, either that there is no evil in the Soul's motion or will, or else that God himself does that evil immediately. For the things we call evil also happen through the Soul, and consequently through such an immediate influence and concurrence of God. For example, Adam's Soul wants to eat the forbidden fruit. According to the

proposition above, that will of Adam happens through God's influence-not only that [Adam] wills, but that he wills in this way, as will be shown immediately. So either Adam's forbidden act is no evil in itself, insofar as God not only moved his will, but also moved it in such a way, or else God himself seems to do what we call evil (Letter 18).

The story of Adam's original sin is used by Van Blijenbergh to raise doubts on Spinoza's and Descartes' conception of the evil as nothing existing in Nature. In particular, this passage of the Scriptures is particularly relevant to address the issue of the relationship between God's Providence and free will. The exchange with Van Blijenbergh offers a first example of Spinoza's interpretations of the biblical episode of Adam's sin. He answers to Van Blijenbergh's question by providing his own interpretation of Adam's eating from the tree of knowledge of good and evil. For Spinoza, there is no opposition between Adam's action and God's will. A key premise is his conception of the perfection and essence. As long as a thing is conceived in itself, any imperfection can be attributed to its own essence, but imperfections are only the result of a comparison among different essences. Consequently, "sins, because they indicate nothing but imperfection, cannot consist in something that expresses essence, as Adam's decision or its execution do" (Letter 19). Later on, Spinoza further clarifies this statement by affirming that:

So because the will or decision of Adam, considered in itself, was not evil, nor, properly speaking, contrary to god's will, it follows that god can be its cause -indeed, according to the reasoning you call attention to, he must be- but not insofar as it was evil, for the evil that was in it was only a privation of a more perfect state, which Adam had to lose through that act. (Letter 19)

This privation is nothing positive in Nature, but is conceived only in relation to human intellect and not in relation to God's one. This privation is expressed by the human inclination to conceive things according to general definitions which follow from knowing things abstractly, i.e. through an extrinsic comparison of different things.

Here, Spinoza does not explain in detail the cause of these abstractions which characterize human imaginative knowledge. However, he makes clear that evil, good or what is commonly called sin does not correspond to anything existing in Nature, but they are only the result of human superficial and abstract comparison among different things. In a nutshell, since certain perfections come together with an essence, a thing is always perfect in relation to its own essence. For instance, one cannot define a human being imperfect because he is not able to fly. Indeed, flying does not pertain to his nature but we can conceive this imperfection only through a comparison with another thing, such as a bird. Moreover, for Spinoza even a blind man cannot be considered imperfect because the defect of his sight, since this is due only to a comparison with other human beings and privation is nothing more than a being of reason.¹⁶³

Spinoza's account of essence and his a-moral explanation of evil, as anything real existing in Nature, needs an alternative interpretation of God's prohibition of eating from a certain tree. This reading relies on the idea of an *adequatio* of the Scriptures to the knowledge of common people, which makes unclear its meaning in the light of a rational investigation. In Spinoza's words:

The prohibition to Adam, then, consisted only in this: God revealed to Adam that eating of that tree caused death, just as he also reveals to us through the natural intellect that poison is deadly to us. And if you ask for what purpose he revealed it to him, I

¹⁶³ This is clearly stated in Letter 21 by Spinoza, when he answers to Van Blijenbergh's argument: "I say, therefore, that Privation is, not the act of depriving, but only the pure and simple lack, which in itself is nothing. Indeed, it is only a Being of reason, or mode of thinking, which we form when we compare things with one another. We say, for example, that a blind man is deprived of sight because we easily imagine him as seeing, whether this imagination arises from the fact that we compare him with others who see, or his present state with his past, when he used to see. And when we consider this man in this way, by comparing his nature with that of others or with his own past nature, then we affirm that seeing pertains to his nature, and for that reason we say that he is deprived of it. But when we consider God's decree, and his nature, we can no more affirm of that man than of a Stone, that he is deprived of vision. For at that time vision no more pertains to that man without contradiction than it does to the stone, since nothing more pertains to that man, and is his, than what the Divine intellect and will attribute to him. Hence, God is no more the cause of his not seeing than of the stone's not seeing, which is a pure Negation" (Letter 21).

answer: to make him that much more perfect in knowledge. So to ask God why he did not also give him a more perfect will is as absurd as to ask him why he did not give the circle all the properties of the sphere (Letter 19).

It is important to notice the epistemological turn in Spinoza's narrative strategy. He attributed to the biblical episode only an epistemological meaning instead of a moral one, according to which God would be a king or lawgiver, who forbid Adam to eat from the tree in order to satisfy a whim of His will. Instead, God provided an adequate knowledge which Adam ignored, i.e. that eating from the tree is harmful to his nature. There is no normative dimension in God's revelation: God did not intend to show Adam's disobedience but only his lack of knowledge. God thus appeared as a teacher who wanted to make Adam more perfect in his understanding of reality.

It is important to notice that, in opposition to a common early modern view in which Adam owned a perfect knowledge before the original sin, Spinoza interpreted the biblical episode by pointing out Adam's lack of knowledge instead of his alleged lack of morality. In Spinoza's necessitarian view of the universe everything necessarily follows from God's nature so the idea that Adam can do something against God's decree is absurd. Moreover, Spinoza had already rejected Descartes' distinction between intellect and will at that time,¹⁶⁴ and already held that God's actions do not depend on an absolute free will. Spinoza understood that the biblical narrative of the original sin represented only the fact that Adam did not understand the harmful effects caused by eating from the tree and God, so to say, offered him this knowledge. Consequently, the main question concerns the distinction between God's intellect and Adam's one, which one needs to answer if one wants to clarify the cause of human errors.¹⁶⁵

¹⁶⁴ See KV and the preface of his *Descartes' Principles of Philosophy*.

¹⁶⁵ It is important to notice that Spinoza's argument is not completely satisfying here. If it is true that everything is always perfect in itself as long as it is not compared with other things, it is also possible to imagine that a thing becomes less perfect at a different time, as Van Blijenbergh himself will stress. For instance,

On the one hand, Van Blijenbergh's main concern was to reject the theological and moral implications of Spinoza's necessitarianism, since it would completely reject the idea that God will honor the pious and punish the godless. Spinoza's perspective, in Van Blijenbergh's view, also undermined Christian piety and human beings would not have any reason to act piously. On the other hand, the correspondent also revealed some conceptual difficulties of Spinoza's account of essence at that time. In particular, he pointed to a tension between the idea that a thing is always perfect in itself and that it can have different degree of perfection in different time. Furthermore, Spinoza's interpretation of the biblical story of Adam did not really clarify the reasons why he ate from the tree after God informed him of the consequences of this act. In the TTP, on which Spinoza started working in 1665 and which was published in 1770, there is another explanation of Adam's original sin which clarifies why Adam ate from the tree despites God's warning. In chapter IV, Spinoza addressed the issue of a conception of God as a king or lawgiver which imposes Its laws to human beings in the Scriptures. Spinoza took as an example Adam's story to clarify that there is no distinction between God's will and Its intellect. Let us consider the following passage:

So, for example, if God said to Adam that he willed him not to eat of the tree of the knowledge of good and evil [Genesis 2:17], it

is there a difference between Adam's essence before and after the Fall? In Van Blijenbergh's words: "The second question is whether evil, which you maintain to consist in the privation of a better state, which not only Adam, but all of us have lost, by a hasty and disorderly act, whether in relation to God that evil is only a negation? To examine this soundly, we must see how you conceive of man and make him dependent on God before all error, and how you conceive of the same man after error" (Letter 20). Deleuze has suggested that Van Blijenbergh did not distinguish between the actual essence of a thing and its affections on which rests Spinoza's notion of good and evil (see Deleuze 1970 and 2007). Deleuze rightly stressed the reason why Spinoza did not contradict himself from the perspective of the *Ethics* here. However, as Sangiacomo pointed out, Deleuze's interpretation of the correspondence relies on a synchronic reading of these letters with Spinoza's mature works. Instead, Spinoza's argument does not explicitly refer to the notion of *conatus* which is fully developed by Spinoza only in the *Ethics*. See Sangiacomo (2013, 102-111) for an overview of the problem of Spinoza's argument in the correspondence with Van Blijenbergh, and see Scribano (2011) on the problem of the knowledge of good and evil in the development of Spinoza's works.

would imply a contradiction for Adam to be able to eat of that tree. So it would be impossible for him to eat of it. That divine decree would have had to involve eternal necessity and truth. But since Scripture nevertheless relates that God did tell Adam not to eat of the tree, and that Adam nevertheless ate of the tree, we must say that God only revealed to Adam the evil which would necessarily befall him if he ate of that tree, but not the necessity of that evil's following.

[27] That's how it happened that Adam perceived that revelation, not as an eternal and necessary truth, but as a law, i.e., as something instituted, which profit or loss follows, not from the necessity and nature of the action performed, but solely from the pleasure and absolute command of some Prince. So that revelation was a law, and God, as it were, a lawgiver or Prince, only in relation to Adam, and because of a defect in his knowledge (TTP, IV, 7).

Here, Spinoza clarifies the reason why Adam acted in a certain way even though God provided him with the knowledge of the evil caused by eating from that tree. The outcome of the story is not due to the fact that Adam owned a free will which enabled him to ignore God's decree. Rather, Adam's error and sin was necessarily caused by a defect of his knowledge. When Spinoza talked of a defect of Adam's knowledge, he did not intend to suggest that there is some imperfection in his intellect or rational faculties. Rather, Adam misunderstood God's revelation, since he had only a partial and mutilated idea of the causes in comparison to God. As Spinoza will clearly state in the *Ethics*, the knowledge of evil depends on human inadequate idea, i.e. a confused and mutilated knowledge of the causes of external things. This "mutilated knowledge" does not depend on an intrinsic imperfection of the intellect, but on the affections produced by external things.

In conclusion, I think that it is evident Spinoza's denial of any intrinsic imperfection in relation to the nature of each thing and his effort to maintain a distinction among different degrees of perfection at the same time. Spinoza's philosophical project did not take the cue

from the idea that the original perfect knowledge of the first man should be restored. He firmly rejected the idea that errors are due to the use of the free will or to an intrinsic imperfection of the human intellect. However, a *leitmotiv* of all his works is the idea that “if we really want to seek our advantage, then since the intellect is the better part of us, we should certainly strive above all to perfect it as much as we can” (TTP, 4, 10). An idea which Spinoza might have seen in Bacon’s works to some extent.

4.3. An Overview on Bacon’s Philosophy and Its Circulation in the Netherlands

In this section, I will briefly present some key aspects of Bacon’s philosophy and the circulation of his philosophy in the Netherlands over the seventeenth century. It is important to introduce his philosophical project and particularly specific elements of it, such as his tripartition of sciences and faculties, his scientific method and his account of history, in order to prepare a critical assessment of Spinoza’s interpretation of Bacon’s philosophy in the next chapters. I will mainly focus on the *Novum Organum*, since it is sure that Spinoza was familiar with it as my previous discussion of Letter 2 has shown. However, I will also sketch other aspects of Bacon’s philosophy which can be found in *The Advancement of Learning* and in *De augmentis scientiarum* in order to offer a broader view of his philosophical project.

At the beginning of his *Instauratio magna*, Bacon presents his own project for a new institution of sciences that should help to improve the wellbeing of human race. In order to achieve this goal, it is necessary, according to Bacon, a new foundation for human reasoning (*IM*, 3-4). In the first book of the *Novum Organum*, i.e. the second part of his *Instauratio magna*, a *pars destruens*, in which Bacon criticizes the old sciences and highlights different kinds of human errors, can be distinguished from a *pars costruens*, in which he explains his new method and its advantages (Montuschi 2015, 21).

The verb *expurgo* is often used by Bacon in his works to clarify the aim of his philosophical project which consists in showing the idols of the mind and in extirpating them as much as possible. Bacon's idea of a purification is conceived according to medical and alchemical model. In particular, his medical terminology shows that the medicine was for him a model and metaphor for the purification of the intellect (see Giglioni 2016 and Jaquet 2010, 262-65). In order to create the conditions for a better understanding of things Bacon underlines the critical aim of his philosophical project:

Now the doctrine of purging the intellect [*expurgatione Intellectus*] to fit it for the truth is wrought by three refutations: the refutation of the philosophies; the refutation of demonstrations; and the refutation of native human reason. When these have been explained, and once I have made clear what may be assigned to the nature of things and what to the nature of the mind, I think that, with Gods goodness showing the way, I shall have adorned and decked out the marriage bed of the mind and the universe (IM, 35).

As Jaquet (2010) rightly points out, the object of this purification is not simply the human intellect, but the human mind which includes all its faculties, volitions and affections (Jaquet 2010, 266-68). Bacon's project consists in purifying the mind from errors, false notions and wits that impede to achieve an understanding of things and of the universe as they really are. In the *Novum Organum*, Bacon clearly stresses the difficulties of this task, since there are some innate idols in the human mind which necessarily lead human beings to err:

Now the Idols which occupy the mind are either extrinsic or innate. The extrinsic have migrated into the minds of men either from the dogmas and sects of the philosophers or from misguided laws of demonstration. *But the innate are rooted in the very nature of the intellect*, which we know to be much more prone to error than the senses (IM, 35 my emphasis).

From this passage, it is clear that Bacon admits that there are idols, errors and false notions in the mind which origin can be brought

back to extrinsic factors and other that are “rooted in the very nature of the intellect.” Furthermore, he clearly states that it is not possible to eradicate all idols from the mind, which is always imperfect to some extent, once and for all. However, Bacon thinks that it is possible to acknowledge these idols and to progress by means of a new method towards improving human knowledge and, consequently, his wellbeing (IM, 35).

For the sake of my investigation, it is enough to address three different issues in the *Novum Organum*: the theory of Idols, the role of experience and rational faculties in his scientific method and, finally, the relationship between the faculties of the soul in Bacon’s theory of knowledge and in his account of history. In the preliminary plan of work Bacon clearly stresses that the purpose of the *Novum Organum* is:

To expound the doctrine of improving and perfecting the use of reason in the investigation of things, and of the true helps of the intellect, so that in this way (as far as our human and mortal condition allows) we may raise up the intellect and fit its faculties for overcoming the dark and difficult tracts of nature (IM, 29).

It is fundamental to find a remedy for the idols of the mind for achieving this aim, “but even just drawing attention to them is great use” (NO, I, 40). As I have already said in section 4.1., Bacon distinguishes among four kinds of idols in the first part of the *Novum Organum*. Now, it is helpful to pay more attention on these idols and their role in Bacon’s theory of error. A clear and general definition of idols is hard to find in the *Novum Organum*. Bacon refers to them as “empty opinions” in opposition to the idols of the divine (NO, I, 23) or talks about “the idols and false notions which now garrison the human intellect” (NO, I, 38). Idols denotes different sources of human cognitive errors which enable to identify human false and twisted representations of the reality. Sorana Corneanu and Koen Vermeir have stressed that “the idols, therefore, are either images, or notions derived from imagines, of individual things” and there are two senses,

a neutral and an evaluative, of the term. The evaluative one points to the corruption of imagines which is “due to the disturb functioning of various faculties or operations of the mind.” Consequently, the problem mainly concerns the internal working of imagination and reason even though the senses are incapable to penetrate the hidden structure of things (Corneanu and Vermeir 2012, 186).

This general definition should not lead to neglect that Bacon distinguishes four different kinds of idols, originated by different causes. The first kind of idols, i.e. that of the tribe which “are rooted in human nature itself and in the very tribe or race of men” (NO, I, 41), do not concern only human rational faculties, but involves the whole human nature including the senses. They correspond to an innate and fallacious way of representing things in which “all perceptions of sense and mind are built to the scale of man and not the universe” (*ibid.*). This leads Bacon to talk of the human intellect as an “uneven mirror” which distorts and strains the true nature of things. However, Bacon further states that these idols are:

The ones which originate from the evenness of the substance of the human spirit, or from its preconceptions, its narrownesses, its restlessness, contamination by the affections, the inadequacy of the senses, or mode of impression (NO, I, 52).

Even though the use of the terms *intellectus* and *mens* might cause some confusion these idols penetrate the whole human nature for Bacon. This is confirmed by the idea of a contamination of the intellect by the will and affections which foster the human inclination to seek for rushed conclusions or to conceive the universe according to human prejudices and superstitions (NO, I, 49). In brief, Bacon recognizes a bent of human nature which determines a misrepresentation of the universe and should be limited to proceed towards a knowledge of the universe

Instead, the idols of the cave “belong to the particular individual” and not, as in the case of the idols of the tribe, to all human beings in the same way. Bacon recognizes that there are particular differences

and aspects among individuals which determine different fallacious representations of the reality and lead to err. These idols might rest on different aspects which characterize an individual:

his own unique and singular nature; or his education and association with others, or the books he reads and the several authorities of those whom he cultivates and admires, or the different impressions as they meet in the soul, be the soul possessed and prejudiced, or steady and settled, or the like (NO, I, 42).

These idols denote a varied samples of causes which reveal the possible varying of the human spirit. Once again, one should not only take into account the human mind, but also the specific constitution of each individual, as it can affect their way of representing the universe. As Bacon stresses, “Idols of the Cave originate from the peculiar nature of the individual, both body and soul, as well as from education, custom and accident” (NO, I, 53). It is important to stress that the passionate nature of human beings – and not merely the human intellect – plays a key role in producing errors. In particular, this kind of idols highlights how human cognitive operations, and their way of investigating nature, can be influenced by individual fantasies, passions and desires. When this happens

Men fall in love with particular sciences and reflections either because they fancy that they are their authors and discoverers, or because they have invested a great deal of work and become entirely steeped in them. Now if such men then devote themselves to philosophy and general reflections, they distort and corrupt the latter in line with their former fantasies.

The variety which characterizes the idols of cave makes difficult to offer a complete explanation of the causes and dangerous effects of this idols. However, the fundamental aspect of this kind of idols is their way of distorting and adapting the representations of reality to individuals’ own nature.

The third kind of idols, called the idols of the market, are exclusively rooted in “the mutual agreement and association of the

human race” (NO, I, 43). In brief, these idols are caused by a wrong use of words and language from which arise empty controversies, wrong representations of the universe and complete fictitious. There are two main cases which can be distinguished to identify these idols: first, an application of word to non-existing thing; second, the use of vague and confused words. The intellect itself is not the cause of these errors. Rather, the idols of the market point at the relevant social and linguistic dimension from which false problems or false representations might arise:

But Idols of the Market, which have slipped into the intellect through the alliance of words and names, are the greatest nuisances of the lot. For men believe that their reason rules words but it also happens that words turn and bend their power back upon the intellect; and that has made philosophy and the sciences sophisticated and inactive. For words are generally imposed according to common capacity, and divide things up on lines most obvious to the ordinary intellect (NO, I, 59).

Bacon stresses the role of words in directing and deviating the activity of the intellect. Furthermore, he stresses the fact that words are mainly adapted to the view and understanding of common people whose minds are largely influenced by other idols, dangerous inclinations and fallacious representations of reality. However, a wrong application of words does not only affect the intellect of common people, but is a general problem in philosophy and the sciences. If the idols imposed to the intellect by attributing names to things which do not exist appear easily to purify, Bacon points out the difficulties to eradicate idols which arise from names of ill-defined things or rashly abstracted from the facts (NO, I, 60). For instance, the term “moist” is nothing “but a vague label for different actions which refuse to be reduce to any common factors” (*ibid.*). Consequently, the same word can refer to many different things or be abstracted from different facts causing a confused, abstract, and distorted understanding of things. On the one hand, language plays a fundamental role in directing human intellect towards an

understanding of things. On the other hand, there is a clear distinction between words and intellect since the idols of the market are imposed on the intellect by words in different ways, and are by no means innate.

Finally, there are the Idols of the theater which clearly depend on external factors. Indeed, they “have migrated into men’s soul from the dogmas of the philosophers and misguided laws of demonstration as well” (NO, I, 44). This kind of idols appears deeply connected with the others three kinds but is particularly relevant in the field of philosophy and the sciences. Indeed, Bacon stresses the dogmatic approach and philosophical prejudices which are imposed on the human mind by accepting traditional views without a critical investigation of things. In a nutshell, these idols concern the passive acceptance of principles and axioms which got their strength and truthfulness only “from tradition, credulity and carelessness” (*ibid.*).

It is important to notice the role that Bacon attributes to his theory of idols in the *Novum Organum*. The recognition and distinction between different kinds of idols do not only aim to clarify the origin of different errors, but are also a remedy against errors and false notions. We have seen that the senses, the intellect itself, human imagination, passions, wits and words play a different role in developing a wrong conception of nature and things. The purpose of Bacon’s classification of different idols is not only descriptive, but corresponds to one stage of Bacon’s “medicine of the mind,” insofar as it puts on guard the human intellect and enables human beings to avoid errors by recognizing them (Gigliani 2016). Nevertheless, the acknowledgment of these different kinds of idols is not enough to completely purify the human mind. Bacon ascribes two kinds of excess to human beings that lead them to fix and perpetuate errors: 1) the excess that brings to pontificate quick and render the science arbitrary; 2) the excess of those “who have brought in the Acatalepsy, and inquiry vague and endless” (NO, 67). Consequently, a new method is needed for progressing towards a broader knowledge of nature.

Bacon's method consists in the alliance between human experimental and rational faculties, between the senses and the intellect. On the one hand, the senses and experience are not enough alone to grasp the nature of things successfully. On the other hand, human intellect is prone to supposing more order in things than there really is and forms abstract ideas from few elements, which do not correspond to the true structure of the world (NO I, 124). It is necessary to maintain a connection with the real world through experiences and, at the same time, the intellect organizes the materials that experience provides. Hence, Bacon introduces his idea of a new natural history which should provide the foundation for investigating nature. This natural history will consist in experiments and different kinds of empirical data for informing the intellect. However, a simple collection of facts is not enough for the progress of the sciences since there are different ways to have an experience of the world. As Bacon clarifies:

But we must not only seek and get a greater abundance of experiments, an abundance of a kind different from that made hitherto; we must also bring in a quite different method, order and process for keeping experience going, and advancing it. For unguided experience [*Vaga enim experientia*], following itself alone, is (as I said above) just groping in the dark, and it muddles men more than it informs them. But when experience starts going forward according to a certain law, step by step and steadily, then will we be able to hope for better things from the sciences (NO, 100).

In this passage, Bacon does not only stress the importance of the use of the senses and experience in order to achieve a true knowledge of nature, but he also distinguishes different ways of making experience of things. A pure and unordered collection of experiments, not systematic at all, does not enable human beings to make sense “of an overwhelming mass of disjointed and ambiguous stimuli, data, hints and clues” (Gigliani 2013, 428). There are other ways of making experience. The *experiential literata* correspond to a second stage of

experience by which human beings can control and organize the huge amount of experience or, using Bacon's metaphor, to spell the words of the book of nature. This kind of experience differs from the first one as it enables to organize different experiences and to lay solid foundations for our knowledge. Finally, human beings can fluently read the book of nature and achieve a broader understanding of the world through the interpretation of natural phenomena which provides a broader and universal knowledge of nature (Giglioni 2013, 428-29). When Bacon talks about *experientia vaga*, he refers to a basic kind of experience that corresponds only to an aimless way of experiencing the world. In order to achieve a better understanding of nature, a systematic and ordered experience (*experientia literata*) is needed, one which enables to organize a great number of experiences.¹⁶⁶

The distinction between different kinds of experience brings to light an interpretative problem which have haunted scholars so far, i.e. the role of theory and hypothesis in the collection and organization of empirical data. Bacon's scientific project is characterized by a tripartition of the sciences, i.e. history, poetry and philosophy, which mirrors a tripartition of human faculties, i.e. memory, imagination and reason. It is important to notice that this tripartition does not imply a complete separation among the different disciplines, but they are related as different branches of the same tree (Rusu 2018).¹⁶⁷ This also means that there are many connections and intersections among the cognitive operations of the human mind which make more complex the idea of a purification of the intellect. Indeed, this purification does not only concern some faculties or cognitive contents, but also the way in which different faculties work

¹⁶⁶ I do not want to affirm that Bacon distinguished only between *experientia vaga* and *literata*. Bacon's account of experience is much more complex and nuanced. Jalobeanu (2016) has investigated Bacon's idea of ordering experience in his natural and experimental history.

¹⁶⁷ The classification and distinction of different sciences is provided in *The Advancement of Learning* published in 1605 and in *De dignitate at augmentis scientiarum* which is an enlargement of the former published in 1623. For an overview of Bacon's philosophy and his classification of the sciences see Perez-Ramos (1988) and Jaquet (2010).

together. For instance, this is relevant for the understanding of Bacon's account of imagination. The imagination is defined as the middle faculty between memory and reason. It is not to be overlooked that imagination is not bad or passive in itself, even though it still is the main source of errors. Bacon does warn his readers against a use of imagination without the guidance of reason, but not against a use of the imagination itself (Rusu 2020). Indeed, imagination plays a key role in the "moral, or mental-medical, aspect of Bacon's epistemological project" (Corneanu and Vermeir 2012, p. 184). On the one hand, Bacon's method aims to downsize the excesses of the spirits which leads to arbitrarily make abstraction from things, or to come to hasty conclusions, from few empirical elements. On the other hand, Bacon "explores the effects of natural particulars on the spirits and imagination in his natural histories and medical works" in order to improve the use of all faculties for seeking a good life which involves physiological, moral and epistemic components (*ibid.*, 203).

In this perspective, the role of memory and history as well as that of imagination and reason is particularly important to achieve a true knowledge of things. Indeed, as Silvia Manzo has argued, "Bacon's model of history stresses the impartiality of history as a record of things. In order to achieve this ideal, both memory and sense play a fundamental role. The material accumulated in memory comes from the senses, which are said to be the doors of the intellect" (Manzo, 2012, p. 34). History does not merely coincide with a specific kind of science, but also plays a pivotal epistemological role as a means to avoid the most common philosophical errors, since it provides the organized material necessary to increase human knowledge and, consequently, to avoid cognitive errors. Even though Bacon distinguishes between different kinds of history, in particular between natural and civil history, these have similar aims and the same programmatic function. Both civil and natural history are deeply connected to Bacon's idea that there is a kind of correspondence between knowledge and the operative effects that human beings may produce: "Causes (axioms) and precepts as speculative outcomes

derived from inductive generalizations are consequently used to enable effective action in order to alter the state of nature and man respectively” (Manzo, 2012, pp. 60–61).¹⁶⁸

The influence of Bacon’s project of renewing the sciences through a new method based on induction is connected with the development of English experimental philosophy and the establishment of the Royal. However, Bacon’s works also circulated in Europe and played a pivotal role in developing the natural sciences in different frameworks. Here, I will briefly present the dissemination of Bacon’s works in the Netherlands, where more editions of his works were published than in England – 41 up to 1700.¹⁶⁹

Many key intellectual and scientific figures, such as Isaac Beeckman and Christiaan Huygens, committed themselves to disseminating Bacon’s thought in the Dutch cultural and scientific framework (Dibon, 1984). For instance, Beeckman’s interest went beyond the philosophy in *Novum organum*: he “mainly concentrated on Bacon as a historian of nature, a meticulous investigator of both natural and—at least apparently—preternatural facts” (Gemelli, 2013, 64). Indeed, Beeckman critically addressed and discussed in detail many experiments that Bacon presented in his *Sylva sylvarum* (Gemelli, 2014).

Moreover, Bacon’s philosophy played an important role in connection with the dissemination of Cartesian philosophy in Dutch universities. Many Baconian arguments were often presented in the works of Dutch Cartesians eager to reject and replace the traditional Aristotelian arguments – for instance, in relation to the problem of

¹⁶⁸ In this conceptual framework, scholars disagree about the relationship between experiment and theory, and between experience and hypothesis, in Bacon’s method and, consequently, in his account of natural history. For an overview of the different problems and positions within this debate see Rusu (2013, pp. 34-58).

¹⁶⁹ In addition, two Dutch translations of Bacon’s work were published in the Netherlands: F. Bacon, *De Proef-Stucken, midtgaders, sijn heylige meditatie, en de wijsheyt der ouden*, tr. by P. Boener, Leiden 1646, 1647, 1649 (as *Politiicke en de andere daftige bedenckingen*, Leiden), 1649 (as *Heylige meditatie en essayes. En nu op nieuws hier noch by gevoegt een tractaetjen van sijn coleuren en apparentien van goet en quaet*, Rotterdam); Id., *Nieuwen Atlas ofte beschrijvinge van het noyt meer gevonden Eylandt van Bensalem*, tr. by J. Williaemson, Dordrecht 1656 (see Elena, 1991, pp. 33-47).

error or the use of experience in science. Thus Adriaan Heereboord (1613-1661), Descartes' eclectic sympathizer, and Johannes De Raey (1622-1702), a prominent Dutch Cartesian, used many Baconian arguments to undermine Scholastic positions and to establish a different kind of scientific method. Heereboord thought that "Bacon's empirical and qualitative physics could fit the traditional *curriculum* more than Descartes's system" (Strazzoni 2012, p. 255); consequently, he considered many Baconian arguments more suited for an emendation of Aristotelian philosophy within universities.

In a nutshell, Bacon's works circulated widely in the Dutch Republic, where his thought was appreciated in many ways. His philosophical method in the *Novum organum*, his classification of sciences in *De augmentis scientiarum* and his collection of experiments in the *Sylva sylvarum* were used and discussed to achieve different aims, such as establishing a new kind of experimentation and of developing arguments against Scholastic logic, or reliable accounts of history.

In this context, Spinoza became familiar with Bacon's philosophy. The *Tractatus de intellectus emendatione* was published posthumously in 1667, but Spinoza wrote it after his banishment from the Amsterdam's Jewish community around 1656-58. At that time, in the years 1657-59, Spinoza probably attended some courses at the University of Leiden, where De Raey was teaching, and where Heereboord had previously taught (Nadler, 1999, p. 163). The University of Leiden was a particularly important place, insofar as many prominent professors openly sympathized with Cartesian philosophy. As already noted, De Raey was a professor of philosophy and lectured on natural philosophy and other subjects.

Besides, it is certain that Spinoza studied the *Novum organum*, which, as I have shown, he quotes in Letter 2 to Oldenburg, and Bacon's *Essays*, since in his library he had a copy of *Sermones fideles, Ethici, Politici, oeconomici: Sive Interiora Rerum. Accedit Faber Fortunae &c.* This 1641 Latin edition of Bacon's *Essays*

(1625) included some parts of book VIII of Bacon's *De augmentis scientiarum*, i.e. chapters II and III (Van Cauter, 2016, 94). Spinoza never refers to Bacon in his works explicitly, but he does so three times in his *Correspondence*. After the first reference to Bacon in Letter 2 in 1661, Spinoza acknowledges Bacon's contribution and importance in the development of natural philosophy¹⁷⁰ during his discussion with Oldenburg and Boyle concerning experiments with the reconstruction of Niter in 1663. Finally, in 1666 Spinoza answers his friend Bouwmeester's question as to whether there exists, or could exist, a method that enables one to proceed, "without either obstruction or weariness, in thinking about the most excellent things [*praestantissimae res*]" (Letter 37). Hence, he affirms that the true method relies on the presence of true ideas and on the distinction between the intellect and the imagination, but also that a little history of the mind *à la Bacon* helps distinguish different kinds of perception and the ideas composing the human mind without any knowledge of the first causes.

In conclusion, there was a broader circulation on Bacon's works and a relevant use of his philosophy in the Dutch cultural and scientific context of the seventeenth century. The *Correspondence* testifies Spinoza's familiarity with Bacon's works, a topic which I will address in the next chapters of this part. The dissemination of different Baconian works in the Netherlands surely influenced Spinoza's cultural and philosophical contexts. This preliminary work aims to offer few elements for the investigation of the development of Spinoza's account of mind. I have introduced key aspects of Bacon's

¹⁷⁰ "Perhaps he [Boyle] has something which I cannot see to allege against the reasonings of Bacon and Descartes by which he thinks he can refute them. I do not recount their reasonings here, because I do not think the Distinguished Gentleman is unfamiliar with them. But I will say this: they too wanted the Phenomena to agree with their reason; if they nevertheless erred in some things, they were men, and I think nothing human was alien to them" (Letter 13, August 1663). The discussion between Spinoza and Boyle concerned the experiments presented by the former in his *Physico-Chymicall Essay, Concerning an Experiment with some Considerations touching the differing Parts and Redintegration of Salt-Peter*. The counter-experiments that Spinoza considered necessary to support Boyle's explanation of the reconstruction of Niter partially fit with the methodology provided in the second part of the *Novum organum* (Pousseur, 2000, pp. 27-28).

theory of idols, his methodology and his account of history. In particular, I have focused on the *Novum Organum*, which Spinoza surely knew, in order to prepare a critically assessment of Bacon's influence on his works.

4.4. The Publication of Descartes' *Treatise on Man* within the Physiological Debates of the 1660s

Before proceeding with the analysis of Spinoza's works, it is worth introducing the physiological debates at the beginning of the 1660s. The question of Spinoza's interest in medicine and in contemporary physiological debates has been long neglected, since he provides only general and vague description of the human body in his works. This is incomparable to careful descriptions of the human body and its functions, such as those provided by William Harvey or by Descartes.¹⁷¹

However, Spinoza's medical sources have recently received more attention and, consequently, I retain they should be taken into consideration here. Raphaële Andrault (2019) has dealt with the prejudices about Spinoza's lack of interest in the medical and physiological debates of his time by stressing the presence of standard medical books in his library, such as Thomas Bartholin's *Anatomia reformata* (1651) and Johann Vesling's *Syntagma anatomicum* (1647). Furthermore, she has emphasized the presence of many doctors in medicine in his circle, such as Meyer, Bouwmeester and Tschirnhaus, or in his cultural framework, such as De Volder, Kerckring, Velthuysen and Steno. This renewed attention for Spinoza's medical education is supported by Pina Totaro who has pointed out Spinoza's familiarity with Steno's physiological research

¹⁷¹ The question concerning Descartes' attitude towards physiology, i.e. whether the nature of his physiological explanations can be compared with that of other anatomists, has been addressed by Bitbol-Hespériès (2000) who stressed that, on the one hand, Descartes' theoretical and practical education in anatomy and, on the other hand, his aim to provide a mechanic explanation of the functions of the body. Furthermore, Pietro Daniel Omodeo (2017) has investigated the penetration of Cartesian ideas into medical practices and theories related to new anatomical techniques in the Netherlands and Germany of the mid-seventeenth century.

and that he “paid [Steno] daily visits to see the anatomical investigations of the brain that [he] carried out on several animals in order to discover the place where motion begins and sensation ends” (Totaro 2002, p. 32). Finally, a clue that Spinoza was interested in medicine is provided by Letter 8 which his friend Simon de Vries written to him in 1663:

I have entered an anatomy course, and am about half through.
When it is finished, I shall begin chemistry, and following your
advice, go through the whole Medical Course (Letter 8).

This passage confirms that Spinoza considered important a medical education, although the text does not give any indication to understand Spinoza’s own medical expertise.

From the point of view of my investigation, it is relevant to take into consideration Emanuela Scribano’s suggestion that *Treatise on Man* of Descartes influenced Spinoza’s account of imagination in the *Ethics* (Scribano 2015). Descartes did not publish during his lifetime the *Treatise on Man*, originally conceived as the eighteenth chapter of his *The World* (or the *Treatise on Light*). Descartes clearly refers to these unfinished works in the *Discourse on Method*. Moreover, his physiology was also easily understood from his *Passions of the Soul*. While these works were probably accessible to Spinoza when he was working on his early writings,¹⁷² the *Treatise on Man* was not published before the publication of Florentius Schuyl’s Latin edition in 1662.¹⁷³ This Latin edition was present in Spinoza’s personal library, but the date of his publication can justify Spinoza’s increasing attention to the constitution of the body for explaining the nature and power of the mind in the *Ethics*.

¹⁷² In Spinoza’s library there were Descartes’ *Opera* in three volumes published in 1650 and the Dutch translation of the *Discourse* and of *The Passions* by Jan Hendriksz Glazemaker, a member of Spinoza’s circle, published first in 1656.

¹⁷³ This is the first edition of Descartes’ unfinished work which was published in the United Provinces, in Latin translation, before the original in French (1664) by Clerselier. However, it is well-known that many manuscripts circulated before his publication. For an historical analysis of the different editions and receptions of the work see Antoine-Mahut and Gaukroger (2016).

An overview of Descartes' aims in *Treatise on Man* is fundamental to highlight the characteristic of this work in comparison to a published one such as *The Passions of the Soul* which also contains physiological explanations. Descartes underlined that his overall goal was to investigate which functions of the body can be conceived without referring to the soul. His explanation was strictly mechanical that means without any reference to occult qualities, but only through a quantitative explanation of interaction of bodily parts in terms of motion, rest, size etc.¹⁷⁴ His engagement to achieve a strict mechanical explanation of some bodily functions is testified by the comparison of the human body with a machine. At the end of *Treatise on Man* Descartes stated what follows:

I desire, I say, that you should consider that these functions follow in this machine simply from the disposition of the organs as wholly naturally as the movements of a clock or other automaton follow from the disposition of its counterweights and wheels. To explain these functions, then, it is not necessary to conceive of any vegetative or sensitive soul, or any other principle of movement or life, other than its blood and its spirits which are agitated by the heat of the fire that burns continuously in its heart, and which is of the same nature as those fires that occur in inanimate bodies (AT XI, 202).

Although Descartes identified the pineal gland, located in the brain, as the place in which the body-mind interaction takes place, he feigned a human body which is not united with a soul yet. Hence, he offered an example of a human-animal without the soul and reason. The motions of the animal spirits were investigated by him only in relation to the natural laws without taking into account the agency of the soul. The description of the human body aimed to show the

¹⁷⁴ I do not intend to reduce the early modern mechanist view to a naïve and general definition, since it is a broad category which was also problematic in physiological debates. My aim is only to stress that Descartes' departure from other conceptions of the human body in which anatomical explanations were based on qualitative comparison, such as the analogy between the Sun in the macrocosm and the heart as the sun of the microcosm of the human body. For a broader explanation of Descartes' importance for the development of a mechanical physiology, see Bitbol-Hespériès (2000).

invisible mechanical causes behind human bodily perceptions, imagination, memory and also spontaneous bodily movements such as respiration. Particularly relevant, especially in light of the subsequent debates on the *Treatise on Man*, is Descartes' clarification of the relationship between perceptions and ideas. Descartes stressed that the ideas in the mind do not resemble the external objects which they represent. Any representation is based on invisible effects of animal spirits' motion which enables to form figures of the objects, including colors and smells, without any apparent resemblance. In other words, Descartes stressed that the access to physical objects is not direct, but always mediated through the figures shaped on the pineal gland from which human beings can formulate their judgement about things. Furthermore, the nature of memory is based on the explanation of certain bodily ideas, i.e. figures shaped by the motions of animal spirit on the pineal gland or on surfaces connected to it, since these shapes can determine the future motions of the spirits.

An in-depth analysis of Descartes' *Treatise on Man* is not necessary for the moment. I will just insist on three major aspects of this work. First, the *Treatise on Man* is *per se* presented as an explanation of the nature of human beings as a machine without a soul or reason, i.e., in Descartes' view, as animals. This was the most evident difference for the reader who approached the *Treatise on Man* after reading the *Passions of the Soul*. If this latter treatise presents many continuities with the former, the focus on the role of the mind to control the passions makes its physiological content less predominant. Second, Descartes aimed to investigate the structure of the human brain, its role in the production of ideas and the bodily roots of certain faculties, such as memory and imagination, from a strictly mechanical point of view. Third, a pivotal role was played by the question of the mind-body interaction as Descartes' hypothesis of the pineal gland and his careful explanation of it testify. This issue represented an exceptional case in Descartes's philosophy, since it connected physiological, metaphysical and epistemological aspects as one might see in the physiological debates about *Treatise on Man*.

Descartes' physiology spread, at least, in two different ways in the Netherlands. On the one hand, Henricus Regius, who was accused by Descartes of plagiarizing his *Treatise on Man* in the *Fundamenta physices* (1646), developed a Cartesian physiology from the early 1640s onward. Regius' most controversial claim concerned the human soul, since for him "human being is merely an *ens per accidens*, a human soul only accidentally related to the human body" (Schmaltz 2016, 72). In particular, Regius claimed that reason cannot preclude the possibility that the human mind is a mode of the body conflicts with Descartes's metaphysical premise that natural reason can establish the existence of God and the immateriality of the soul. In spite of the disputes concerning the legitimacy of Descartes' accusation of plagiarism against Regius, it is important to notice that "Regius served as a primary source for a new generation of physicians. In fact, he set the agenda for the Cartesian branch of Dutch medicine" (Schmaltz 2016, 82).

On the other hand, Schuyl's edition of *Treatise on Man* implied a, so-to-say, more "orthodox" interpretation of Descartes' philosophy, insofar as it stressed the metaphysical premise of a real distinction between the soul and the body. In particular, Schuyl's preface insisted on the difference between the human soul, which is immaterial and incorruptible, and souls of the beasts. As Schmaltz has pointed out, "most of the preface is in fact devoted to a defense of Descartes' doctrine that non-human animals are, in contrast to human beings, mere mechanism devoid of thought and feelings" (Schmaltz 2016, 83). Schuyl aimed to establish an unimpeachable link between Descartes' mechanistic physiology and his metaphysical claim of the immortality of the soul, which are related to the Augustinian metaphysical tradition (Schmaltz 2016, 89).

Nevertheless, not everybody appreciated Descartes' *Treatise on Man* and, in particular, some raised doubts about the physiological value of his description of the human body. Nicolas Steno's criticism of Descartes is certainly the most relevant one from the point of view of my investigation, even though Bartholin, Steno's master in Padua,

had already criticized Descartes' hypothesis of the pineal gland. In fact, Steno rejected any occult qualities in his mechanical explanation of the human body and, as we have seen, was acquainted with Spinoza before moving to Paris. In the *Discours sur l'anatomie du cerveau*, pronounced in 1664-1665 during his stay in Paris, he often referred to Descartes' physiological works and, in particular, he rejected Descartes' hypothesis that in the pineal gland was located the soul, and that here the mind-body interaction takes place. The anatomical refutation of this hypothesis became one of the main reasons for neglecting Descartes' scientific contribution to physiological debates. Indeed, Steno showed through anatomical dissections of animal body that the pineal gland "cannot be inclined freely side to side" and, consequently, challenged "the entire cerebral physiology that Descartes propounded in the *Passions de l'ame* and in *Treatise on Man*" (Andrault 2016, 179). In particular, Steno stressed that the structure and functions of the human body provided by Descartes did not fit with the anatomical evidence provided by anatomists and warned about considering Descartes' *Treatise on Man* a medical book.

Despite the empirical evidence provided by Steno, Louis de La Forge presented a defense of Descartes's physiology. La Forge focused on the fact that Descartes' investigation did not concern the visible parts from which anatomists collected their empirical data. Rather, Descartes looked at the invisible causes, behind the visible effects, which human beings cannot be directly experienced by means of the senses. In La Forge's view, Descartes revealed the existence of a correspondence between physical and mental events through the explanation of the representation of external objects in the mind. The explanation of the structure of brain and its functions did not aim to present a man as it is, but it contributed to overcome the idea of a causal interaction between really distinct events. Since the ideas do not resemble the external objects even if they still represent them, it is not relevant, for La Forge, whether or not Descartes' description corresponds to the man of the anatomists. Furthermore, for him,

anatomists like Steno seemed to retain that the dissected brain of animals is comparable with that of a living human being. Instead, “Descartes’ physiology cannot be refuted simply by invoking anatomical observations that contradict it” (Andrault 2016, 182). Finally, La Forge, who was doctor in medicine, still defended Descartes’ hypothesis of the pineal gland by doubting the validity of Steno’s method of dissection. While Steno rejected Descartes’ hypothesis and, consequently, his theory of perception by providing empirical evidence, “La Forge conceived another kind of anthropology where the science of body remained closely related to the science of the mind” (Grigoropoulou 2018, 132).¹⁷⁵

Undoubtedly, while Spinoza was developing his theory of mind, the publication of Descartes’ *Treatise on Man* gave a relevant impulse to rethink the mind-body relationship in many mechanical and physiological debates. The question remains: to which extent was Spinoza influenced by the publication of the *Treatise on Man* and the following physiological debates triggered by it? As I have anticipated, an attempt to shed light on this issue was provided by Raphaële Andrault (2019) and Maria Emanuela Scribano (2015) with two different focuses. While Andrault has focused on the relationship between Spinoza and Steno, Scribano has investigated the influence of Descartes’ *Treatise* on well-known occasionalist authors, such as La Forge, Malebranche and Cordemoy, and on Spinoza’s *Ethics*. I shall now address some of the main results of these two works in order to clarify Spinoza’s approach to the problem of the nature and of the power of the mind, and its relationship with the body.

Assuming that Spinoza had a relevant knowledge of the anatomical debates of his time, his critique of Descartes’ hypothesis of the pineal gland is relevant to understand how his position in the physiological debates. In the preface of fifth part of the *Ethics*, Spinoza dealt with the issue of the power of intellect and what human

¹⁷⁵ Vasiliki Grigoropoulou has provided a broad reconstruction of the dispute between Steno and La Forge. On La Forge’s reception of Descartes’ *L’Homme* see (Scribano 2016 and 2015, pp. 77-97).

beings can do against the affects. From this point of view, he presented Descartes' opinion that there is:

A certain part of the brain, called the pineal gland, by whose aid the Mind is aware of all the motions aroused in the body and of external objects, and which the Mind can move in various ways simply by willing (EVpref).

For any reader of the *Ethics*, who already learned in the previous parts that there is no causal interaction between mind and body, and that the will is one and the same with the intellect for Spinoza, it is certainly not surprising the following criticism of Descartes' hypothesis. Indeed, Spinoza argued that Descartes assumed "a Hypothesis more occult than any occult quality" of the Scholastics. But as Andrault (2019, pp.224-26) has pointed out, Spinoza's criticism was not only based on metaphysical arguments, but also included a clear reference to Steno's *Discours sur l'anatomie du cerveau*:

To this we may add that this gland is not found to be so placed in the middle of the brain that it can be driven about so easily and in so many ways, and that not all the nerves extend to the cavities of the brain (*ibid.*).

Instead of undermining or neglecting the most recent anatomical discoveries Spinoza quoted them to support his criticism of Descartes. This is relevant in the light of La Forge's defense of the pineal gland and of his playing down the problem of the consistence of Descartes' hypothesis with empirical data. Indeed, Spinoza also agreed with La Forge about the fact that the relationship between physical and mental events is not explained or verified in terms of causal interactions, since they correspond to each other. On this issue, Spinoza agreed with occasionalist authors like La Forge and Cordemoy, even though Spinoza turned out to be more radical by positing an identity between the physical and mental modifications (Scribano 2015, p. 156). As Scribano has pointed out, a comparison with occasionalist authors would provide opposite results, insofar as Spinoza agreed with certain

positions and rejected other, such as the occasionalist argument against the causal interaction among bodies.

Spinoza's reference to Steno's anatomical arguments against Descartes and his ambivalence in respect to occasionalist authors compel us to clarify his position in the anatomical debates of the 1660s. In order to do this, it is necessary to abandon the prejudices of Spinoza's disinterest in physiology or an anachronistic conception of this science.¹⁷⁶ I retain that scholars have recently provided enough arguments to state that Spinoza was surely familiar with both Descartes' physiology and with Steno's empirical anatomy. However, the influence of different physiological positions in his works is more difficult to prove. The key question, which will guide my investigation of the development of Spinoza's account of mind, is whether and which physiological position Spinoza assumed in his works based on his philosophical purpose.

I should briefly anticipate some conclusions of my analysis here. The fact that Spinoza used Steno's argument against Descartes' did not mean that he rejected all of Descartes' physiology. Rather, Spinoza added an empirical argument to many other metaphysical ones against Descartes' hypothesis of the pineal gland as the place of the mind-body interaction. However, while Steno did not provide an alternative hypothesis, Spinoza provided the theory of the mind-body identity which overcome the Cartesian problem of the mind-body interaction in a privileged point, i.e. the pineal gland. But if one can find only a very general explanation of the constitution of the body in the *Ethics*, this does not imply that Spinoza completely abandoned the idea of a detailed physical explanation of the bodies and its functions. Instead, he abandoned certain aspects of Descartes' physiology, such as the idea of a privileged place for the mind-body union, but radicalized other aspects of Descartes' physiology which were

¹⁷⁶ Andrault has stressed that "the very notion of physiology understood as the science of bodily functions clearly distinguished both from physics and anatomy, did not make sense at the time; first, anatomy then naturally included the study of the functions, or uses, which now belongs to physiology; and second, anatomy was conceived of as a part of physics" (Andrault 2019, 238).

presented in the *Treatise on Man*. For instance, the idea of correspondence between the modification of the body and the idea of the mind led Spinoza to conceive the mind as a complex whole, composed of many ideas. Furthermore, he generalized Descartes' idea of the human-animal without reason by excluding any difference among things that cannot be explained in a strictly mechanical way.

Chapter 5

The Innate Power of the Mind and the Cartesian Dualism in Spinoza's Early Writings

So far, I have provided an overview of a few sources and issues which might have played a role in the development of Spinoza's theory of mind and knowledge. First and foremost, I have analyzed the reasons behind Spinoza's critique of Descartes and of Bacon's theory of mind and error. With reference to Bacon, my aim was to show that Spinoza's critique was deeply connected with the theological issue of the corruption of human mind after the Fall. Since in his discussion with van Blijenbergh, Spinoza firmly rejected the idea of an imperfection of the things themselves, and he also reinterpreted the biblical narrative of Adam's original sin in order to show its "true meaning," he took a peculiar stance in the debate on human power of knowledge. For Spinoza, God talked to Adam as teacher who wanted to increase the knowledge of his student, and not as a king asking for obedience. This is important with respect to interpretations of this biblical passage, which attributed a perfect knowledge to Adam before the Fall and a corruption of human nature afterwards. Thus, Spinoza criticized Bacon's theory of error from a specific point of view, which did not involve a rejection of Bacon's whole philosophy. After discussing these points, I have introduced Bacon's philosophical project and the reception of his work in the Dutch Republic. This analysis aimed to prepare a critical assessment of Bacon's possible influence on Spinoza's works. Finally, I have also pointed out that scholars have recently stressed Spinoza's interest in medicine, which had been previously neglected in Spinoza scholarship, and the importance of the physiological debates around the posthumous publication of Descartes' *Treatise on Man*. This is

relevant insofar as the development of Spinoza's mature account of mind and imagination appeared close in time with the publication of Descartes' physiological works and certain the physiological debates.

In this chapter, I will start investigating Spinoza's *corpus* chronologically by tackling Spinoza's TIE and the KV. My goal is to clarify Spinoza's theory of the mind and knowledge, its problems and some possible debt with Descartes and Bacon.. As a matter of fact, there are many relevant differences between the theories of knowledge presented in the *Ethics* and in the TIE. First, Spinoza provides three different kinds of knowledge in the *Ethics*, i.e., imagination, reason and intuitive science, instead of four kinds of perception. Second, a development in Spinoza's theory of knowledge is evident, since in the *Ethics* one learns that reason, and not only intuitive science, provides adequate knowledge. In what follows, I will focus on Spinoza's early theory of mind, its problems, and the conceptual framework in which it was developed.

Since the TIE also refers to the human mind by using the terms "intellect" and "*animus*," I will stress the ambiguity of Spinoza in defining the object of the emendation. This points to the question whether the emendation concern only the intellect or the mind as a whole. Furthermore, as some scholars have stressed, Spinoza seems to follow Bacon's idea of a purification of the intellect to some extent. Indeed, two of the four kinds of perception presented in the TIE seems to be inspired by Baconian elements. Finally, there is a self-sufficiency of the human mind, which seems to be able to achieve adequate knowledge and the Supreme Good on its own, independently of any social interaction. This has important epistemological and ethical implications which indicate Spinoza's debt with Descartes's epistemology and, to some relevant extent, theory of mind. However, I also show some interesting similarity with Bacon's method and his theory of idols. Only in the KV did Spinoza vaguely provide an explanation of the human mind-body relationship in terms of correspondence, although any reference to affections appeared related to Descartes' *Passions of the Soul*. While in both the

TIE and the *KV* Spinoza maintained a possible interaction between mind and body, this possibility is ruled out in the mature works.

This chapter is divided into three sections. In the first one, I will deal with Spinoza's conception of mind and his theory of knowledge in the TIE by paying particular attention to possible references to Bacon, although within a Cartesian conceptual framework. The second section will focus on the mind-body identity and on the three kinds of knowledge presented in the second part of the *Short Treatise*, to clarify the extent to which the explanation of the constitution of the body played a role in Spinoza's early writings. In the third and final section, the epistemological status of fictive ideas will be discussed within the conceptual framework provided by Spinoza's early writings. The discussion will concern the question whether fictions reveal human imaginative power, or rather depends on the power of intellect.

5.1. Mind, Intellect and Perceptions in the Method of the TIE

The TIE represents Spinoza's first attempt to provide a philosophical contribution of his own. In addition to Descartes' evident influence on Spinoza's first work, many scholars have acknowledged the presence of many lexical analogies between the TIE and Bacon's *Novum Organum*.¹⁷⁷ In the TIE, Spinoza's aim is to provide the true method for achieving the Supreme Good. As a preliminary remark, Spinoza states that "nothing, considered in its own nature, will be called perfect or imperfect, especially after we have recognized that everything that happens happens according to the eternal order, and according to certain laws of Nature" (TIE, § 9). Despite the fact that perfection and imperfection do not exist in Nature, here Spinoza distinguishes the True Good [*verum bonum*] from the Supreme Good [*summum bonum*]. The former consists in "whatever can be a means

¹⁷⁷ Mignini, Curley and Koyré highlighted in their translations that the TIE contains many implicit references to Bacon's *Novum Organum*, such as the idea of a purification [*expurgatio*] of the intellect and the concept of *experientia vaga*. However, a semantic analysis of these concepts and a broader comparison between the two authors is still missing.

to 'attaining' a human nature much stronger and more enduring than his own." The latter means "to arrive - together with other individuals if possible - at the enjoyment of such a nature" (TIE, § 13). Since human beings cannot easily achieve this perfect nature because of their "weakness," it is necessary to foster five aspects of human life: first, a better understanding of Nature; second, to form the most desirable society possible; third, to enhance human moral education; fourth, to improve the whole science of medicine; fifth, the development of mechanics. All these aspects concur to achieve the perfect model of human nature and the Supreme Good.

However, one should first of all "devise a way of healing the intellect, and purifying it [*expurgandi*], as much as we can in the beginning, so that it understands things successfully, without error and as well as possible" (TIE, § 16). Spinoza affirms that "what must be done first, before all else" is "emending the intellect [*emendandum scilicet intellectum*] and rendering it capable of understanding things in the way the attainment of our end requires" (TIE, § 18).¹⁷⁸ These few passages already show a vague, but meaningful, similarity with the language, purposes and methodology of Bacon's *Novum Organum*. Indeed, Spinoza, like Bacon, emphasizes the importance of a previous purification of the intellect which is part of Spinoza's method and necessary to achieve a true knowledge of things. Furthermore, the TIE reveals an ambiguity in defining the object of this emendation which reminds of Bacon's work. This ambiguity relies on the fact that Spinoza does not always make a clear distinction between the mind (as a whole) and the intellect (as the highest faculty of the mind) (Mignini 1983, 35).

After this emphasis on the purification of the intellect, Spinoza introduces four different kinds of perception, to begin the explanation of his method:

¹⁷⁸ It is evident that Spinoza used both Descartes and Bacon here. But it is also clear that he did not pay less attention to Bacon's philosophy than to Descartes' one (Mignini 1983, 23).

1. There is the Perception we have from report or from some conventional sign.¹⁷⁹
2. There is the Perception we have from random experience, that is, from experience that is not determined by the intellect. But it has this name only because it comes to us by chance, and we have no other experiment that opposes it. So it remains with us unshaken.
3. There is the Perception that we have when the essence of a thing is inferred from another thing, but not adequately. This happens, either when we infer the cause from some effect, or when something is inferred from some universal, which some property always accompanies.
4. Finally, there is the Perception we have when a thing is perceived through its essence alone, or through knowledge of its proximate cause (TIE, § 19).

According to this distinction, the term *intellectus* designates the highest faculty of the mind besides imagination, i.e. the fourth kind of perception (TIE, § 87). However, Spinoza sometimes refers to both the third and the fourth kind of perceptions (TIE, § 108),¹⁸⁰ and even assigns the property of imagining to the intellect itself (TIE, § 108). This ambiguity makes it difficult to understand Spinoza's philosophical project of emending the mind, since one might wonder whether the object of this emendation is the mind itself, the influence on the mind of some faculties, such as the imagination, or only external causes which hinder an adequate understanding of things.

As I will show soon, Spinoza in the TIE strongly trusts the power of human intellect for achieving true knowledge, and provides a reflexive method to distinguish true innate ideas from each other. This method clearly shows Spinoza's debt to Descartes's method. Consequently, it is unlikely that the mind itself or the intellect as his

¹⁷⁹ In Curley's translation the possible reference to Bacon does not appear clearly. I put the emphasis on the sentence of the original text: "Est Perceptio, quam ex auditu, aut ex aliquo signo, *quod vocant ad placitum, habemus.*"

¹⁸⁰ The third kind of perception or knowledge is not considered adequate. Consequently, the word "intellect" does not necessarily designate an adequate knowledge.

highest faculty would require a purification for him. Rather, cognitive errors are due to bodily causes, and these can be corrected by means of the power of the mind alone. Spinoza did not intend to argue that the mind contains errors in itself and that it should be perfected because of its intrinsic corruption. However, his project at this early stage turns out to be problematic for two reasons: on the one hand, the ambiguous conception of mind does not enable to understand Spinoza's theory of mind clearly;¹⁸¹ on the other hand, Spinoza does not really define in what imagination consists in, since he only affirms that imagination does not correspond to any power of the mind and by imagining the mind is always passive (TIE, § 84). He provides only a negative definition of imagination as what is opposed to the intellect. Only focusing on the intellect itself and on its power – which corresponds to the power of the mind – human beings can achieve a true and certain knowledge of the things, while the imagination, which is connected with bodily affections, lead them to err (TIE, § 86). In order to clarify this relationship between imagination and intellect in Spinoza's early theory of mind, it is necessary to come back to Spinoza's explanations of different kinds of perceptions.

The perception from report and that from random experience play a pivotal role in Spinoza's early account of imagination and in explaining the cause of human errors. Both kinds of perception do not fit in with Spinoza's conception of science because this is characterized by the knowledge of causes and essences of the things. Spinoza did not consider these kinds of perception dangerous or fallacious in themselves. Rather, the perception from conventional signs relies on what human beings know from others – for instance their birthdate – and knowledge from random experience provides only a knowledge of how some properties of things appear to them. These two kinds of perception are not useful to achieve a true and

¹⁸¹ Spinoza's ambivalent theory of mind is evident in the use of *intellectus*, *mens* und *animus* to refer to same object (see Giancotti 1971). Moreau (2006) has offered an overview of the problems concerning the translation of Spinoza's terminology concerning his psychology.

certain knowledge of things since they do not enable human beings to achieve a certain knowledge of the essences or first causes of things. However, they seem to be fundamental to “know almost all the things that are useful in life” (TIE, § 20).

It is important to notice that the third kind of perception too, i.e. the inference of one thing from another one, does not help to achieve a perfect knowledge of things, although it does not lead to errors either. This is surprising for one who is familiar with Spinoza’s view of the tripartition of knowledge and account of reason as presented in the *Ethics*, since here reason provides an adequate knowledge of common notions and of the properties of things. Instead, Spinoza explained in the TIE that “we can, in a sense, say that we have an idea of the thing, and that we can also make inferences without danger of error. But still, it will not through itself be the means of our reaching our perfection” (TIE, § 28). This kind of perception corresponds to the human capacity to infer one thing from another. As one might see from the following passage, the knowledge provided by this kind of perception is relevant and without error:

But we infer [one thing] from another in this way: after we clearly perceive that we feel such a body, and no other, then, I say, we infer clearly that the soul is united to the body, which union is the cause of such a sensation; but we cannot understand absolutely from this what that sensation and union are. Or after we have come to know the nature of vision, and that it has the property that we see one and the same thing as smaller when we look at it from a great distance than when we look at it from close up, we infer that the sun is larger than it appears to be, and other things of the same kind (TIE, § 21).

The third kind of perception provides the knowledge of some aspects of things from which we can infer certain things without errors. However, this is not an adequate knowledge of the causes, for instance of the body-mind union, but only of the existence of a certain relations among things. In conclusion, Spinoza states that only the fourth kind of perception can lead human beings to perfect

themselves and, consequently, human beings should make a good use of what is an intuitive perception of the essences or proximate cause of things.

Here, Spinoza clearly follows a Cartesian approach in order to provide human knowledge a certain foundation, even though, as Sangiacomo (2015, 344-52) has rightly stressed, Spinoza departed from Descartes with respect to a key issue. While we can be doubtful of true things and be certain of something false for Descartes, for Spinoza certainty corresponds to truth. In other words, truth is self-evident and human beings cannot have a true idea and at the same time doubt of a truth. This is particularly important to understand Spinoza's method. Such a method consists in distinguishing between true ideas and to show the way in which "truth itself, or the objective essences of things, or the ideas (all those signify the same) should be sought in the proper order" (TIE, § 36). This "Method is nothing but a reflexive knowledge, or an idea of an idea," and, consequently, it implies that human beings should already have a true idea from which they can derive other ideas. In brief:

The Method must, first, show how to distinguish a true idea from all other perceptions, and to restrain the mind from those other perceptions; second teach rules so that we may perceive things unknown according to such a standard; third, establish an order, so that we do not become weary with trifles. When we came to know this Method, we saw, fourth, that it will be most perfect when we have the idea of the most perfect Being (TIE, § 49).

In the following paragraphs, Spinoza explains the difference between fictitious, false, doubtful and true ideas, and how human beings can distinguish true ideas from the other kinds. A crucial distinction provided by Spinoza is the one between simple and composed ideas. Indeed, according to this distinction can be understood both the difference with other ideas and the order of ideas in a true knowledge. Ideas can be either simple or composed. Since truth is self-evident for Spinoza, a simple idea cannot be false but only true and offers a ground to proceed towards a safe knowledge of

things. Assuming a certain method, human beings should start from these ideas and to form and order more complex thoughts. Even though composed ideas can be false, since they can be formed by false ideas or are incomplete, a deduction from simplest ideas cannot lead human beings to err. Consequently, an analysis of ideas enables to recognize the simplest ideas and form other ideas from these most simple ones. In a nutshell, true ideas are distinguished from other ideas on the grounds of the previous identification between certainty and truth, without any reference to external things. Indeed, “true thought is distinguished from a false one not only by an extrinsic, but chiefly by an intrinsic denomination” (TIE, § 69), and “there is something real in ideas, through which the true are distinguished from the false” (TIE, § 70).

In my view, in the TIE Spinoza clearly embraced an innatism of ideas, insofar as he posited the existence of simplest ideas from which human intellect can form complex ideas without erring. In this conceptual framework, Spinoza clearly conceived the intellect as self-sufficient to achieve an adequate knowledge of things without any investigation of external things. Furthermore, the idea of God played here a key function as the most perfect idea from which human beings can deduce many other things. Consequently, human error can be attributed only to kinds of perception which do not rely on the intrinsic power of the mind, but on external causes. Indeed, when Spinoza addressed the imagination in the TIE, he stressed the key role of the first two kinds of perception in human errors. On the one hand, the first kind of perception leads to abstractions and inadequate concepts of things, since it is based on arbitrary signs that do not always correspond to things:

Since words are part of the imagination, i.e., since we feign many concepts, in accordance with the random composition of words in the memory from some disposition of the body, it is not to be doubted that words, as much as the imagination, can be the cause of many and great errors, unless we are very wary of them (TIE, § 88).

A criticism of the common understanding of people follows to this analysis: “They [words] are established according to the pleasure and power of understanding of ordinary people [*ad libitum, & ad captum vulgi*], so that they are only signs of things as they are in the imagination, but not as they are in the intellect” (TIE, 89, 38). These passages clearly rest on a strict distinction between the imagination and the intellect which is explicitly addressed in the previous definition of the perception from random experience. Here, Spinoza’s *experientia vaga* is not only defined as something unclear and by chance, but it is “experience that is not determined by the intellect.” This distinction, that we can find in both Spinoza’s first two kinds of perception, is first and foremost a distinction between two different orders, which correspond to the radical opposition established between the imagination and the intellect in the TIE:

But if you wish, take imagination any way you like here, provided it is something different from the intellect, and in which the soul has the nature of something acted on. For it is all the same, however you take it, after we know that it is something random, by which the soul is acted on, and at the same time know how we are freed from it with the help of the intellect. So let no one be surprised that here, where I have not yet proved that there is a body, and other necessary things, I speak of the imagination, the body and its constitution. For as I have said, it does not matter what I take it to be, after I know that it is something random, etc. (TIE, § 84).

This passage is important for three reasons: first, imagination is said to correspond to a passivity of the soul, which completely differs from the activity of the intellect. Second, this passivity is deeply related to the affections of the human body. Third, Spinoza states that all the fictitious, false and doubtful ideas “have their origin in the imagination” (TIE, § 84). On the one hand, all errors do not depend on an intrinsic imperfection of the mind or the intellect, but they depend on the fact that human beings do not often distinguish the true and innate ideas from the ideas provided by the imagination. As the

previous passages shows, imagination appears as always passive, since it is deeply connected with the constitution and affection of human bodies, and is characterized by different laws and offers a different order of the things – a random one – that is completely different from the laws and the order of the intellect. Furthermore, imagination is only affected by some singular corporeal things which are then ordered in a confused and abstract way (TIE, § 82).¹⁸² Spinoza concludes that:

From this we have acquired as much knowledge of our intellect as was possible in the beginning, and such a standard of the true idea that now we do not fear confusing true ideas with false or fictitious ones. Nor will we wonder why we understand certain things that do not fall in any way under the imagination, why there are some things in the imagination which are completely opposed to the intellect, and finally why there are others that agree with the intellect; for we know that those activities by which imaginations are produced happen according to other laws, wholly different from the laws of the intellect, and that in imagination the soul only has the nature of something acted on. From this it is also established how easily they can fall into great errors, who have not accurately distinguished between imagination and intellection (TIE, § 86 and 87).

For Spinoza, we should be on guard against the knowledge that “we have from report or from random experience [*experientia vaga*]” (TIE, § 75) which mainly characterizes the imagination. However, for restraining the errors of the imagination human beings do not need to use the power of their will, but it is enough the power of true ideas,

¹⁸² Here, Spinoza also sketches the relationship among memory, imagination and intellect by vaguely referring to the central role of the brain: “I say also corporeal, for the imagination is affected only by bodies. Therefore since the memory is strengthened both by the intellect and also without the intellect, we may infer that it is something different from the intellect, and that concerning the intellect considered in itself there is neither memory nor forgetting. [83] What, then, will memory be? Nothing but a sensation of impressions on the brain, together with the thought of a determinate duration of the sensation, which recollection also shows. For there the soul thinks of that sensation, but not under a continuous duration. And so the idea of that sensation is not the duration itself of the sensation, i.e., the memory itself” (TIE, § 82-83).

from which one can proceed towards the knowledge of the things from the causes to the effects:

We have shown that a true idea is simple, or composed of simple ideas; that it shows how and why something is, or has been done; and that its objective effects proceed in the soul according to the formal nature of its object. This is the same as what the ancients said, i.e., that true knowledge proceeds from cause to effect except that so far as I know they never conceived the soul (as we do here) as acting according to certain laws, like a spiritual automaton (TIE, § 85).

Even though Spinoza did not deal with the problem of free will in the TIE, there are some passages, such as the previous one and its explanation of the fictitious ideas, which go in the direction of Spinoza's well-known identification of the will with the intellect. Indeed, he refers to the fact that each true idea is not only a representation of a thing, but also of all effects that a thing can produce. Consequently, a true idea produces, as the object itself, other ideas without any affirmation of the will.

In the fourth chapter of this dissertation, I have already introduced Bacon's theory of idols and his distinction among different kinds of experiences. Here, it is useful to compare Bacon's view with Spinoza's theory of perceptions from conventional signs and from *experientia vaga*. If Spinoza's debt towards Descartes is evident, it is also interesting to see how certain description of human cognitive errors seems to recall Bacon's theory of idols. From instance, *the idols of the market* concerned the errors arising from the commerce among individuals and from a wrong use of words, by naming things that do not exist or by ill-defining things. In the *TIE* Spinoza stresses how words and language can be one of the main causes of error when they correspond to a knowledge based on an external authority, and on the understanding of nature by ordinary people. Consequently, the first kind of perception leads human beings to form universal ideas which put together many different things or ideas which do not correspond to anything existing. A knowledge of this kind is for

Spinoza as much as for Bacon ineffective, since science “does not descend to vulgar understanding [*ad vulgi captum*] except in its utility and effects” (NO, Pref). Both Spinoza and Bacon recognize that words can be dangerous and carry a false representation of the reality which is a major cause of errors, since human beings form ideas of non-existing things and abstract notions.

Furthermore, the influence of Bacon’s account of *experientia vaga* on Spinoza’s second kind of perception was suggested by some scholars because a lexical similarity with the *Novum Organum*.¹⁸³ However, Alan Gabbey has minimized the possibility of Bacon’s direct influence on Spinoza, since the use of the same words is not enough for arguing in favor of an assimilation of Bacon’s *experientia vaga* in the TIE. Gabbey, as much as I did, stressed the great difference between Spinoza’s true method in the TIE and Bacon’s one. Furthermore, in relation to the notion of *experientia vaga*, Gabbey has affirmed that Bacon considers this kind of experience “an ineffectual method of finding the causes of things”, while “for Spinoza it is an empirical base of a specific logical kind from which are inferred general propositions which are useful in life, but which do not reveal the essences or causes of things” (Gabbey 1995, 176). Instead, Gabbey suggested that both Spinoza and Bacon might share the Peripatetic logical tradition as a common source, but there is no direct influence of Bacon on Spinoza.¹⁸⁴

I agree with Gabbey that Spinoza’s explanation of method is rather indebted to Descartes’ one than to Bacon’s one. However, I do not think that Bacon’s account of vague experience might be defined as an “ineffectual method.” As I said, vague experience corresponds to a pure and unordered collection of experiments, not systematic at all, which does not enable human beings to make sense of an overwhelming mass of disjointed and ambiguous stimuli, data, hints

¹⁸³ On the possible Baconian influence on Spinoza’s “random experience” there are allusions in Curley’s translation note 15 and also in Mignini’s translation of Spinoza’s works note 38 (Spinoza 2010, p. 1529).

¹⁸⁴ Don Garret (1995, 172-76) suggests that Burgersdijk, Heereboord, and Goclenius and the traditional technical sense of *vagus* could have been a better source for Spinoza.

and clues. Such a vagueness can be brought about by an ineffectual method, but also by a reliance on knowledge coming from the senses, without the guidance of reason.

What makes worth an investigation of the possible influence of Bacon on Spinoza is not the simple lexical similarity. Rather, it is the way in which Spinoza describes the cause of errors in relation to the first two kinds of perception and the imagination. This description highlights the difference between the order of ideas provided by the intellect and that provided by the imagination. Imagination, Spinoza stresses, focuses on singular things, forms abstract ideas by connecting many different singular things, and is not able to grasp the true connection and order of things in Nature. Spinoza's reflexive method does not follow Descartes's *cogito* argument, but rests on innate ideas, in particular that of God, and aims to provide a way to achieve the knowledge of the Supreme Good. This includes the understanding that all things in Nature are produced according to an eternal and fixed order (TIE, § 13). Consequently, the reflexive method aims to highlight the innate intellectual tools which human beings must achieve a true knowledge of things without any impediment or error. In other words, by ordering and connecting ideas through the intellect, human beings should be able to produce a knowledge which reflects the production of things according to the eternal and fixed order of Nature. The fact that Spinoza intellectual approach is problematic can be seen at the end of the TIE, when the impossibility emerges of deducing existing things without experience. The idea that "everything that occurs in the sphere of matter (*globus materiae*) is reflected in the sphere of the intellect (*globus intellectus*)" characterized Bacon's thought and his conception of the *experientia literata* (Gigliani 2013, 406). As Jean-Marie Pousseur (2000) has argued, Spinoza's reflexive method consists in a gradual and continuous production of knowledge by progressing from the innate instruments of human intellect to more complex forms of knowledge. This progressive knowledge starting from simple elements can be also found in Bacon's idea of proceeding from the

knowledge of the simplest nature towards that of the middle axioms and, finally, to the knowledge of the universal laws of nature (Pousseur 2000, 36).

In conclusion, I consider that it is possible to recognize Bacon's influence on Spinoza to some extent, insofar as one does not focus on weak linguistic assonances or direct quotations. Instead, it is important to note that this influence might be limited to certain aspects, and also that Spinoza's reception of Bacon's ideas might not correspond exactly to Bacon's original philosophical project. Furthermore, I have already shown by analyzing the criticism of Bacon in Letter 2 that Spinoza combines Descartes' and Bacon's positions in a loose way. Consequently, Spinoza makes use of an internal and highly rationalist approach to true knowledge, in which the self-awareness and reflexive knowledge play a pivotal role. This does not prevent us from pointing out that Bacon influenced Spinoza in developing his account of perception and in investigating the different kinds of errors the way he did. Spinoza's knowledge from random experience shows the same inefficiency of Bacon's *experientia vaga*, since this kind of perception is not properly ordered and guided by the intellect. In fact, both Spinoza and Bacon distinguish between the disorder of random experience and experience ordered by means of the intellect. The real difference is that Bacon provided different kinds of experiences – *experientia vaga*, *experientia literata* and so on – while Spinoza did not explain what experience determined by the intellect consists in and, as it is clear from the interruption of the TIE, he was not able to provide such explanation in the conceptual framework provided by the TIE.

5.2. Body-Mind Correspondence and Tripartition of Knowledge in the KV

In comparison to the TIE, the KV presents some differences in Spinoza's theory of mind and knowledge. In the KV he vaguely addresses the body-mind interaction, the problem of passions and

distinguishes among three different kinds of knowledge. At the beginning of the second part of the KV Spinoza offers an incipit that one can find in a similar form at the beginning of the second part of the *Ethics*:

We shall now proceed to treat of particular and limited things-not of all of them, since they are innumerable, but only of those that concern man. And first we shall consider what man is, insofar as he consists of certain modes (contained in those two attributes which we have noted in God) (KVII, pref).

Now, this passage clearly shows the conceptual distance between Spinoza and the philosophical tradition before him, insofar he does not conceive human beings as substances neither in relation to the mind or soul nor in relation to the body. Instead, humans are for Spinoza modes of the attributes of extension and thought according to the ontological premises provided in the first part of the KV. However, this statement does not only clarify the ontological status of human beings, but also raises a series of concerns in relation to the relationship between the body and the mind. If mind and body are modes of two different and real distinct attributes, what does their union consist in? While in the main body of the KV Spinoza limits himself to an explanation of the body and mind as modes of two different substances, an added part to the main body text provides more details to understand their relationship.¹⁸⁵ In a nutshell, the mind-body union is due to the fact that for every existing thing there is an idea. Consequently, the human mind is nothing else than the idea of an existing body or, as it can be found in the second appendix of the KV, the mind is the idea of an actually existing body (KV, App2, §9).

The human body is a particular thing that comes to existence by means of motion and rest, and there is no ontological difference

¹⁸⁵ While Mignini in his translation added the note to the second paragraph of the preface of KVII, Curley has complained that there is no certainty about the right placement of this addition. This problem is deeply connected with the possible additions of parts at different times, a problem that concerns the notes as well as the two appendixes.

among bodies but only their different proportion of motion and rest. Furthermore, even though a body undergoes many changes caused by external bodies it continues to exist as long as the proportion is preserved. Since each body is associated with an idea, namely a mind, the continuous variation of the body involves the same variation in the mind. Finally, Spinoza posits that, on the one hand, the destruction of the body implies that of the mind and, on the other hand, since the mind is a mode in the thinking substance “it has been able to know and love this [substance] also, as well as that of extension; and uniting itself with these substances (which always remain the same), it has been able to make itself eternal” (KVII, pref, §2).

Now, this explanation of the mind-body union is provided in passages of the KV which might have been added years after the first draft of the main body of the text. This makes it difficult to establish exactly when Spinoza developed his thesis of the body-mind identity. However, as Garber has shown, in the KV there is no clear assumption of an identity between the body and the mind even though there is a strong relationship between the two. Rather, “the argument for parallelism between modes of thought and other modes in the KV derives [...] from the perfection of the attribute of thought” (Garber 2015, 125-125). By considering the fact that Spinoza seems to deal with the Cartesian problem of the dualism in the KV, it is possible to make sense of some passages in which Spinoza discusses about the nature of the body-mind interaction. This problem is discussed after the clarification of the different kinds of knowledge, their effects, and the nature of passions.

The theory of perception in the TIE differs from the tripartition of knowledge provided in the KV to some extent. This is one of the main reasons that induced Mignini to suggest that the TIE is prior to the KV (See Mignini 1983). In the first two chapters of KVII, Spinoza affirms that human beings have different perceptions of external things and of themselves:

1. simply through belief (which comes either from experience or from report), or 2. through a true belief, or 3. through a clear and distinct concept.

The first is commonly subject to error. The second and third, though they differ from one another, cannot err (KVII, 1, § 2).

As it is evident, Spinoza maintains the distinction between four kinds of perception within a new tripartition of knowledge. The first kind of knowledge is the main cause of error, since its concepts are originated by means of random experience and by report. This is confirmed when Spinoza clarifies, by providing the example taken from the rule of three presented in the TIE, how these three kinds of knowledge work. Indeed, the rule of three can be known from report or by means of a vague experience of particular things from which we know a general rule. As we have seen in the TIE, these two ways of knowing things do not enable to achieve an adequate knowledge of things and are cause of errors, since they provide ideas in a confused and partial way.

Then, Spinoza casts attention on the second kind of knowledge, i.e. the true belief, and he does not only affirm that it is not subjected to error, but also that “reason tells him [each human being] that because of the property of proportionality in these numbers, this is so, and could not have been, or happened, otherwise” (KVII, 1, §3). The importance of reason is revealed by the following explanation of passions provided by Spinoza through which human beings can restrain passions and progress towards the knowledge of the highest things. Nevertheless, reason does not provide an immediate and clear knowledge of particular things, but is still useful, insofar as it compels human beings to conceive things through a mediated reasoning and inferences which enable to avoid errors. A clear knowledge can only be achieved by means of the third kind of knowledge, the intuitive one, which provides the “clearest knowledge of all” (KVII, 1, §3).

The main novelty of the KV is that the preliminary distinction among different kinds of knowledge precedes a clarification of the causes of passion and of how the mind can be directed to the highest things. The therapy of passions, as Sangiacomo (2019, 51-53) has stressed, consists in a cognitive therapy in which the mind should be cleared by inadequate ideas. Indeed, passions too are ideas for Spinoza, and they have as their efficient cause the three kinds of knowledge. In a nutshell, to clear the human mind from bad passions corresponds to correct inadequate ideas provided by means of opinion.

An investigation of this theory of passions is relevant on three different levels: first, it helps examine in depth the cognitive function of Spinoza's three kinds of knowledge; second, it reveals the almost complete absence of a bodily component of the passions; third, it brings to light that Spinoza takes into account the Cartesian problem of the body-mind interaction despite his rejection of the notion of free will.

For what concerns the function of the three kinds of knowledge, it is enough to point out that each kind of knowledge provides different effects and "knowledge is the proximate cause of all the 'Passions' of the soul" (KVII, 2, §4). Consequently, an investigation of which passions can be originated by the different kinds of knowledge will reveal which passions are good or bad for human beings, and how human beings can control and restrain them. The second aspect, the absence of a bodily investigation of the passions, shows, on the one hand, the debt of Spinoza's theory of passions with Descartes' description of the passions of the soul, since some definitions of the passions clearly follows Descartes' one. On the other hand, Spinoza completely neglects a bodily explanation of the origin of the passion of the soul or of the place in which the body-mind interaction takes place. On the third level, the lack of a bodily explanation of passions does not imply Spinoza's well-known rejection of the dualism as such. Indeed, Spinoza seems to maintain the possibility of a mind-body interaction in the KV. Consequently,

Spinoza's theory of mind in the KV differs to some relevant extent to that provided in his mature works.

In relation to the first level, Spinoza maintains that the same passion can be caused by different kinds of knowledge as in the case of love, which can arise from opinions or true perceptions and, consequently, "for the first tends to our destruction, and the second to our supreme salvation" (KVII, 3, §4). Consequently, Spinoza's strategy is to distinguish passions in relation to their different causes, i.e. different ideas, and to show how human beings can restrain bad passions and unite themselves with the highest things. A successful cognitive therapy rests on the second and third kind of knowledge, namely reason and intuitive knowledge, that which reveals the inadequacy of ideas by providing a better knowledge of the things. However, true belief or reason and the clear knowledge provided by an intellectual intuition have different cognitive straight and they play two different roles:

This [true belief] shows us, indeed, what it belongs to the thing to be, but not what it truly is. That is why it can never unite us with the thing we believe. I say, then, that it teaches us only what it belongs to the thing to be, not what it is. There is a great difference between the two [true belief and clear knowledge] (KVII, 4, §2).

Spinoza aims to distinguish between different ways of knowing things and, in particular, between inadequate knowledge from a more certain one. However, he also draws a key difference between the second and third kind of knowledge, which are fundamental to clear the mind from inadequate ideas. On the one hand, reason enables human beings to progress towards a clear and certain knowledge of the things better than a random experience of a few particular things. On the other hand, this knowledge appears to be useful if one ought to form a universal idea of things, but not to know the things as they really are. This distinction is important, insofar as the second kind of knowledge "can be a cause of the destruction of those opinions which

we have only from report (because Reason has not come to us from outside), but not [a cause of the destruction] of those which we have through experience” (KVII, 21, §2). Instead, the knowledge of God and of particular things can be obtained only by means of the third kind of knowledge, i.e. by means of “an immediate manifestation of the object itself to the intellect” (KV, 22, §1). In conclusion, reason seems to be useful to emendate the mind from inadequate ideas and to direct human beings towards a clear knowledge of the things and of what is good and evil for human beings, but it still is inefficient to achieve a clear knowledge of things (see KV, 4).

In the KV Spinoza maintains the identification between certainty and truth, that I have already stressed while analyzing the TIE,¹⁸⁶ and rejects the distinction between intellect and free will. The will is not able to self-determine itself, and the affirmation or denial depends on intrinsic features of ideas.¹⁸⁷ Consequently, the tripartition of knowledge and a cognitive therapy of passions cannot rest on the intentionality of the mind, i.e. a self-determination of the mind, which can suspend its judgment in order to achieve a better knowledge of things by means of the intellect. From this point of view, Spinoza’s early cognitive therapy differs from Descartes’s one, since the rejection of the free will and the identification between certainty and truths excludes the possibility that human errors depend on an act of

¹⁸⁶ “Things which are clearest of all make known both themselves and also Falsity, so that it would be very foolish to ask how one can be aware of them. For because they are said to be the clearest of all, there can never be any other clarity through which they could be explained. So it follows that Truth manifests both itself and falsity. For Truth becomes clear through Truth, i.e. , through itself, as Falsity is also clear through Truth. But Falsity is never manifested or indicated through itself” (KVII, 15, §3).

¹⁸⁷ “I shall only show briefly that Freedom of the Will is completely inconsistent with a continuous creation, viz. that the same action is required in God to preserve [a thing] in being as to create it, and that without this action the thing could not exist for a moment. If this is so, nothing can be attributed to [the will]. But one must say that God has created it as it is; for since it has no power to preserve itself while it exists, much less can it produce something through itself. If someone should say, therefore, that the soul produces the volition of itself, I ask: from what power? Not from that which was, for that no longer exists. Nor from that which it now has, for it does not have any by which it could exist or endure for the least moment, because it is continuously created. So because there is no thing which has any power to preserve itself or to produce anything, the only conclusion left is that God alone is, and must be, the efficient cause of all things, and that all Volitions are determined by him” (KV, 16, §3).

will, which overcomes the limits of the intellect as Descartes suggested. Furthermore, Spinoza almost completely neglects Descartes' attempt to provide a bodily explanation of passions, and reduces errors to an effect of the body on the mind. This is evident when Spinoza addresses the cause of laughter:

Laughter is not related to another, but only to the man who notices something good in himself; and because it is a certain kind of joy, there is nothing to say about it which has not already been said about joy. I am speaking here of such laughter as is produced by a certain idea which rouses one to laugh, not of the laughter produced by a motion of the [animal] spirits. Since the latter has no relation to good or evil, it would be out of place to speak of it here (KVII, 11, §2).

Spinoza does not deny the existence of a bodily dimension of passions. Rather, he seems to consider a physiological investigation of bodily causes pointless to clarify what is good and bad for human beings and how to achieve the Supreme Good. This supports the reading according to which Spinoza, in the KV, would endorse a version of ethical intellectualism by which the mind is self-sufficient to achieve the Supreme Good.¹⁸⁸ According to this reading the remedy to bad passions is in the mind itself.

However, Spinoza's cognitive therapy does not rely on a distinction among mental faculties and the power of the will. Instead, there is only a distinction among different ideas, inadequate and adequate, which depend on different ways of knowing. Furthermore, different passions can be distinguished according to the more or less completeness and clearness of the ideas from which they originated. In a nutshell, the power of the mind is enough to achieve a better knowledge of things by correcting inadequate ideas through an appropriate use of the intellect.

¹⁸⁸ For details on such a reading, see Sangiacomo (2015 and 2019, 50-74). However, Jaquet has also highlighted the difference between Spinoza's early theory of passions and the mature one presented in the TTP and, consequently, has stressed the intellectualism of the early writings (Jaquet 2004).

One might wonder whether Spinoza thought that the explanation of the mind and different ideas are enough to avoid errors and to use the intellect correctly. If there is any free will according to his ontological premises, human success in mastering the passions and in achieving the Supreme Good only depends on having or not adequate ideas of the things according to the power of the mind. Indeed, no intentional act or free choice enables to suspend our judgment or to make use of the intellect. In other words, Spinoza clearly states that the human mind has the power to know things adequately and to achieve a knowledge of the highest things, but I do not think that the KV provides a satisfying answer to the question of how this power can be expressed. Is Spinoza's remedy a simple description and clarification of the cause of error and passions? But how is it possible to explain that human beings err even when they know what is best to do, such as in the case of the biblical story of Adam to whom, for Spinoza, God offered a true knowledge of things? These questions do not receive a clear answer in the KV and they appear even more puzzling when Spinoza addresses the problem of the mind-body union and interaction. Such interaction is possible as one might see from the following passage:

But according to what we perceive in ourselves, it can indeed happen that a body which is now moving in one direction comes to move in another direction--e.g. , when I stretch out my arm, and thereby bring it about that the spirits, which previously were moving in a different direction, now however have this one-though [this does] not always [happen], but according to the constitution of the spirits, as will be said later.

The cause of this is, and can only be, that the soul, being an Idea of this body, is so united with it, that it and this body, so constituted, together make a whole. (KVII, 19, §11)

This problem haunted all Cartesians of Spinoza's time who struggled to bring together the possibility of the action of the mind on the body and the ideas that the bodies' motions are governed by the eternal and universal laws of motion. Spinoza affirms that the mind,

as an idea of the body, and the body “together make a whole,” and that the action of the mind on the body is possible when the perceptions of the mind are able to produce some effects in the body itself. There is no account of the pineal gland, and only a few references appear to the motion of the animal spirits. However, the interaction between the mind and the body is possible because of the unity of the mind with the body, and does rest not on a direct causal interaction, but is always mediated by perceptions and translated on a conceptual level as a certain idea of the mind. A further description of this interaction shows that the soul does not have an absolute power on the bodies’ action, but also that the power of the mind is not one and the same with the power of the body:

The soul’s power to move the spirits can also be hindered, either because the motion of the spirits is much decreased, or because it is much increased. It is decreased, for example, when we have run a great deal. In doing this, we bring it about that the spirits give so much more motion than usual to the body, and lose so much motion, that they are necessarily much weakened. This can also happen through taking too little food. It is increased, for example, when we drink too much wine or other strong drink, thereby becoming merry, or drunk, and destroying the soul’s power to govern the body (KVII, 19, §12).

The real distinction between the body, as a mode of extension, and the mind, as a mode of thought, does not imply that they are one and the same thing. Indeed, the mind or soul “can be united either with the body of which it is the Idea or with God, without whom it can neither exist nor be understood” (KVII, 23, §1). In conclusion, Spinoza does not conceive a body-mind identity in the KV or, at least, this does not seem to be relevant, insofar as human beatitude rests only on the intrinsic power of the mind which can be united to God by means of a correct use of the intellect. This shows that Spinoza moves within the Cartesian dualism even though his theory of knowledge is already deeply influenced by the identification of God

with Nature, which involves the rejection of the distinction between will and intellect.

5.3. The Object of Fictions and the Power of Feigning

Spinoza's early theory of knowledge in the TIE and in the KV rests on 1) the distinction of true ideas from other kinds of ideas; 2) the identification of certainty and truth; 3) the acknowledgement of an intrinsic power of the human intellect to achieve a true knowledge of things. Since the TIE focuses on the method, Spinoza elaborates a proper theory of mind only in the KV in which the mind is conceived as the idea of an actually existing body. I have suggested above that Spinoza's distinction of different orders of ideas is indebted to both Descartes' and Bacon's philosophy. Now, the explanation of the fictitious ideas, provided in the TIE, helps address a relevant aspect of Spinoza's theory of knowledge, insofar as the epistemic content of fictions cannot be reduced to that of false ideas and is usually connected to a certain power of feigning.

Spinoza deals with the fictitious idea between §51 and §65 in order to clarify their object and their relationship to the power of the intellect. Since human perceptions concern either existing things or their essences, Spinoza distinguishes the fictitious ideas into two kinds: fictions concerning the existence of thing, and other fictions of intellectual objects or essences. The fictions regarding existence "concern only possible, and not necessary or impossible things" (TIE, §52). Indeed, the non-existence of necessary things or the existence of impossible things imply a contradiction, since the definitions of these things imply their necessary or impossible existence. For instance, God's definition implies Its necessary existence, while a square circle cannot exist. Hence, possible things are the only objects of fictitious ideas in relation to the existence of things, since their existence depend on external causes. Consequently, one can feign the existence of those possible things, insofar as one ignores the true and necessary cause of their existence or impossible existence. In other words, the

definition of possible things does not contain any clue about their existence which depends on the connection of causes in Nature.

Before Spinoza proceeds to the explanation of the fictitious of intellectual object, he stresses that the more we have clear and distinct ideas of particular things, the less we are able to feign. This is puzzling if one thinks about counterfactual statements or imaginary scenarios which rest on an evident false representation of facts. Spinoza is aware of this kind of situation as one might see from the following passage:

Now we must consider those things that are commonly said to be feigned, although we understood clearly that the thing is not really as we feign it. E.g., although I know that the earth is round, nothing prevents me from saying to someone that the earth is a hemisphere and like half an orange on a plate, or that the sun moves around the earth, and the like. If we attend to these things, we shall see nothing that is not compatible with what we have already said, provided we note first that we have sometimes been able to err, and now are conscious of our errors; and then, we can feign, or at least allow, that other men are in the same error, or can fall into it, as we did previously (TIE, §56)

In this passage it is described the circumstance in which one has a clear and distinct idea of a thing, such as the roundness of the earth, but still feign that a thing might exist differently. If there is an intrinsic feature of ideas which determines the human mind's affirmation or denial of them, an imaginary scenario presents a problematic coexistence between true ideas and false ones. This coexistence cannot be explained by means of a suspension of judgement or an act of free will in Spinoza's theory of mind. Consequently, Spinoza needs to justify the possibility of this power of feigning without any relation to a free and self-determined power of the mind. His solution rests on the fact that human beings are able to err and might have inadequate ideas before achieving a true knowledge of things. Moreover, other human beings can be our previous condition of ignoring the truth, and this enable us to feign a

scenario which we know not to exist. This is enough, for Spinoza, to clarify how human beings can feign, even though they have a knowledge of the things, under certain circumstances. However, the reference to human consciousness and memory shows some ambiguity in Spinoza's solution, as we can see from his conclusion concerning the functioning of feigning:

When I say to someone that the earth is not round, etc. , I am doing nothing but recalling the error which I, perhaps, made, or into which I could have fallen, and afterwards feigning, or allowing, that he to whom I say this is still in the same error, or can fall into it (TIE, §56).

Even though Spinoza states that we cannot feign as soon as we conceive a thing as impossible or necessary, the capacity of feign and the reminding the error can be understood without intentionality. Imaginary scenarios clearly offer a situation in which true knowledge and false ideas coexist in providing a false representation of things without errors. Since Spinoza does not explain the cause of different perceptions, but only their different epistemic content, it is impossible to know whether there is a clearer explanation of the cause of feigning, i.e. of how opposite epistemic content can coexist without leading to err. Mignini (2015) has insisted on Spinoza's commitment to Descartes' conception of fictions and to the problem of establishing the limits of fictions. According to Mignini, this is confirmed by the following example of burning candle provided by Spinoza¹⁸⁹:

It remains now to note also those things that are supposed in Problems. This sometimes happens even concerning impossible things. E.g. , when we say "Let us suppose that this burning candle is not now burning, or let us suppose that it is burning in some imaginary space, or where there are no bodies." Things like this are sometimes supposed, although this last is clearly understood to

¹⁸⁹ "Also the example of the candle is not casual, but an implicit quotation of Descartes, who had resorted to the same image in §§95–98 of the fourth part of the *Principia*. Descartes refers to the candle and its flame in order to explain the presence of the fire in the hollow of the Earth, its spillage and its movement in the air" (Mignini 2015, 48).

be impossible. But when this happens, nothing at all is feigned. For in the first case I have done nothing but recall to memory another candle that was not burning (or I have conceived this candle without the flame), and what I think about that candle, I understand concerning this one, so long as I do not attend to the flame.

In the second case, nothing is done except to abstract the thoughts from the surrounding bodies so that the mind directs itself toward the sole contemplation of the candle, considered in itself alone, so that afterwards it infers that the candle has no cause for its destruction. So if there were no surrounding bodies, this candle, and its flame, would remain immutable, or the like. Here, then, there is no fiction, but true and sheer assertions. (TIE, § 57)

Now, this long passage is worth analyzing insofar as it presents Spinoza's own explanation of a thought experiment. First of all, Spinoza stresses that human beings are able to represent in their mind impossible things, such as a burning candle in an empty space. This is possible, insofar as different ideas can be connected to each other in different ways, such as the idea of a burning candle and of a candle that is not burning. Finally, Spinoza points out that this are not fictitious but "true and sheer assertions." This is possible because the feigning does not correspond to a power of the mind. Rather, it is proportional to the lack of knowledge, as it becomes clear from the explanation of the fictitious nature of some chimerical essences. Spinoza's main concern is to establish certain limits to feigning, and then to deny that it is an expression of the power of the human mind. On the one hand, Spinoza follows the "Cartesian thesis, according to which the human intellect is able by its very nature to know the truth and therefore to recognize and correct what is fictitious" (Mignini 2015, 49). On the other hand, Spinoza's theory of ideas implies that the mind is not self-determined and, consequently, cannot feign things freely. Rather, Spinoza concludes that:

A fictitious idea cannot be clear and distinct, but only confused, and since all confusion results from the fact that the mind knows

only in part a thing that is a whole, or composed of many things, and does not distinguish the known from the unknown (and besides, attends at once, without making any distinction, to the many things that are contained in each thing) (TIE, §63).

It is evident that the mind has no power of feigning for Spinoza, but fictitious ideas arose when the human mind does not know things clearly and is passive. Consequently, it is only the imagination that is responsible for human feigning and not the intellect which, instead, enable to limit it through adequate knowledge. However, my analysis has also revealed that Spinoza's theory of fiction implies an adequate epistemic content even though it is confused. Indeed, fictitious ideas are composed ideas in which some ideas are true and other of a different kind. The mind, which has a limited knowledge of things, connects ideas of different kinds and only an analysis of this ideas by means of the intellect enables to clear the mind from errors.

Now, Spinoza holds a clear opposition between imagination and intellect in the TIE and KV which follows the Cartesian one. In the next chapters, I will investigate how this relationship changes within the development of Spinoza's mature theory of mind. The issue concerning fictions turns out to be particularly interesting for two reasons: 1) fictitious ideas will disappear from the *Ethics* as Spinoza will here distinguish only between inadequate and adequate ideas; 2) Spinoza provides imaginary scenarios and thought experiments to foster the understanding of certain adequate knowledge.

Chapter 6

The Imagination as a Power of the Mind in the *Correspondence* and the TTP

The analysis of the early writings has shown that Spinoza develops his theory of mind in a Cartesian framework, in which imagination and reason are opposed and the body-mind dualism is maintained to some extent. Furthermore, an in-depth investigation of the constitution of the body is not entailed by Spinoza's theory of mind, as the mind is conceived as self-sufficient to achieve an adequate knowledge of things. Finally, Spinoza's early theory of knowledge differs in some relevant respects from that provided in the mature works, insofar as the imagination is present but only defined in opposition to the intellect, and human beings cannot achieve an adequate knowledge of things by means of reason which, instead, will provide adequate ideas in the *Ethics*.

In addition to Descartes' influence, I have argued that Bacon's *Novum Organum* played an important role in shaping Spinoza's early theory of perception and distinction among different kinds of errors. For instance, Spinoza's knowledge from random experience showed the same problems of Bacon's *experientia vaga*, since this kind of perception is not properly ordered and guided by the intellect. In fact, both Spinoza and Bacon distinguished between the disorder of random experience and experience ordered by means of the intellect. Moreover, Spinoza retained that by ordering and connecting ideas by means of the intellect human beings are able to produce a knowledge

which fits in with the way in which things are produced in the eternal and fix order of Nature. This recalls Bacon's idea of a parallelism between true knowledge and the power of producing effects within Nature.

In the TIE Spinoza distinguished between different kinds of ideas. One of these ideas are the fictitious ones, which are problematic in the light of the identification of certainty with truth and the rejection of free will. Spinoza's concern was to establish a clear limit to fictitious ideas by means of the intellect and to reject the attribution of any power of feigning to the human mind. His solution rested on the absolute distinction between the intellect as the power of the mind and the imagination as a passive status of the mind. However, Spinoza's analysis of fictitious ideas showed a connection between inadequate and adequate ideas. Indeed, by explaining counterfactual statements or thought experiments, which are rooted in the coexistence of true and other kinds of ideas in composed ones, Spinoza offered some imaginary scenarios in which both true and other kinds of ideas coexist without leading human beings to err. A perfect knowledge of things by means of the intellect would make it impossible to feign, since this is not a power of the mind, but rests on the fact that the mind is acted upon. In a nutshell, the less the human mind knows and connects ideas by means of the intellect, the more it tends to feign.

In this chapter, I intend to focus on the relationship between imagination and reason from 1662, year of the publication of Descartes' *Treatise on Man*, to 1670, when Spinoza published the TTP. My aim is, on the one hand, to highlight Spinoza's so-called discovery of imagination and its bodily components and, on the other hand, to investigate some passages in which imagination seems to foster an adequate understanding of things and have a key practical function. In the first section of this chapter, I will focus on a few letters written between 1663 and 1670 which help to shed light on the development of Spinoza's account of imagination, its opposition to the intellect and its virtuous function. I will briefly discuss the

opposition between imagination and reason presented in Letter 12 to Meyer written in 1663 and in Letter 17 to Pieter Balling written in 1664. While Letter 12 still offers a clear distinction between imagination and intellect in the same way as the early writings - also maintained in the *Ethics* –, Letter 17 provides the first description of imagination as a power of the mind. These two letters, which were written by Spinoza for different purposes, reveal two different perspectives on the nature and function of imagination which are worth investigating. After these two letters I will briefly analyze the thought experiment of the worm in the blood brought up by Spinoza in Letter 32 to Oldenburg written in 1665. My suggestion is that this thought experiment offers an example of how a virtuous use of imagination can help human beings to better understand their relationship with the whole universe without any opposition to reason. Finally, I will investigate Spinoza's reference to a *historiola mentis* (little history of the mind) *à la* Bacon in Letter 37 to Johannes Bouwmeester written in 1666. This little history appears as an empirical-historical method to distinguish between different kinds of ideas, affections, and passions. Despite the continuity with the explanation of method in the TIE, Spinoza seemed to consider Bacon's little history of the mind a useful tool to progress towards the knowledge of excellent things [*praestantissimae res*] even though it is not the same as the true reflexive method. This fact indicates that Spinoza abandoned, or at least revised, the idea of a self-sufficient mind in favor of more complex conception of imagination and experience in which bodily components and history are taken into consideration.

In the second section of this chapter, I will address Spinoza's explanation of the prophets' power of the imagination in order to analyze the practical and epistemological implications of Spinoza's novel account of imagination. Here, I intend to highlight that Spinoza's explanation of specific mental contents provided by the is characterized by an attention for the constitution of the body and the bodily affections caused by external things. On the one hand, this

shows that the problem of the constitution of the body and its affections became fundamental in Spinoza's theory of knowledge and mind in the TTP. On the other hand, it enables to investigate the relationship between imagination and reason from a practical perspective in which the imagination is conceived in a positive way and not only in opposition to the intellect. In the TTP the vivid imagination of the prophets can become certain through the addition of a true sign and, consequently, the prophets' teaching on ethical issues were certain and universal as they agreed with the dictates of reason.

Finally, I conclude with a section on sixteenth chapter of the TTP. Here, Spinoza begun his political reflection and focused on some notions, such as those of natural and civil right, the foundations of a republic [*res publica*] and different kinds of states [*imperium*]. First of all, Spinoza recognized that desire and appetites are not only originated by human imagination, but are in fact constitutive parts of human nature. Furthermore, imagination with its practical function turns out to be fundamental to bring human beings to live together in a republic in which human well-being is improved. Indeed, reason alone cannot bring all human beings to live according to common social laws, but the use of imagination is necessary to produce certain passions, such as hope and fear, which can lead human beings to consider society as the highest good or the lesser evil.

6.1. From A Negative Definition of Imagination to the Practical Function of History

In Letter 12 to Meyer Spinoza discussed the problem of the nature of the infinite and argued that this problem arose from the fact that the different kinds of infinite are not usually distinguished correctly. By addressing the nature of the extended substance, which is infinite and indivisible for Spinoza, he pointed out that the reason why human beings usually divided it in parts depends on a superficial and imaginative knowledge of the nature of quantity. Indeed:

We conceive quantity in two ways: either abstractly, or superficially, as we have it in the imagination with the aid of the senses; or as substance, which is done by the intellect alone. So if we attend to quantity as it is in the imagination, which is what we do most often and most easily, we find it to be divisible, finite, composed of parts, and one of many. But if we attend to it as it is in the intellect, and perceive the thing as it is in itself, which is very difficult, then we find it to be infinite, indivisible and unique, as [NS: if I am not mistaken] I have already demonstrated sufficiently to you before now (Letter 12).

Here, Spinoza clearly opposes the imagination to the intellect. Since the same distinction between two different conceptions of quantity is provided in EIp15s too, it is clearly maintained Spinoza's mature works. In Letter 12 there is no explanation of different kinds of perception or knowledge, but it testifies that Spinoza began to use systematically the word "imagination" to denote inadequate knowledge in opposition to the intellect.¹⁹⁰ Of particular interest is the reference to time and measure as beings of reason and imaginative tools to determine the duration and quantity of things. Even though these tools appear useful to imagine things, human beings cannot achieve an adequate knowledge of things through these imaginative tools. According to Spinoza, "if someone strives to explain such things by Notions of this kind, which are only aids of the Imagination, he will accomplish nothing more than if he takes pains to go mad with his imagination" (Letter 12). Since these aids to imagination played a key role in sciences and human daily lives, it is unlikely that Spinoza wanted to suggest that human beings should abandon these tools completely. Rather, Spinoza stresses their ineffectiveness to achieve an adequate and certain knowledge of the nature of things and their proximate causes, and warned against the risk of their misuse.¹⁹¹

¹⁹⁰ As Bostrenghi (2016) has stressed, the use of the term imagination [*inbeelden*] is absent in the KV even though this kind of knowledge is denoted by the term opinion [*opinie*]. Furthermore, Mignini (2015) has suggested that the part of the TIE in which Spinoza refers to the imagination might be the result of a later addition instead of an original part of the first draft.

¹⁹¹ Theo Verbeek (2015) interpreted these being of reasons as fundamental to understand Spinoza's account of reason which, for Verbeek, "can be said to be the

While there is no indication concerning a possible virtuous use of the imagination and no reference to the constitution of the body in Letter 12, there are important changes in Letter 17 to Balling written in 1664.

Letter 17 presents many relevant and, at the same time, puzzling issues in relation to Spinoza's conception of imagination. Here, he explained the cause of Balling's omens and tried to make sense of them. According to the content of Letter 17, Balling heard sighs one night, when his child was still healthy and well, like those that his child made when he got ill; shortly afterwards, the infant passed away. As Maxine Rovere (2020) has highlighted, the theme of omens was not strange or unusual at that time. Indeed, Spinoza wrote Letter 17 in the dramatic situation caused by the plague epidemic of 1663-64. At that time many people, and many of Spinoza's friends, died because of a mysterious and unknown illness. In general, unusual natural phenomena were easily interpreted as omens of future disasters or as sign of human salvation. Consequently, the analysis of the philosophical content of Letter 17 and of Spinoza's surprising statement, that "the effects of the imagination [...] can be omens of a future thing" (Letter 17), need an interpretative effort to distinguish between relevant conceptual aspects and others determined by historical and emotional aspects.

The purpose of Letter 17 was not to offer a coherent and systematic explanation of philosophical concepts. Instead, Spinoza likely aimed to comfort his friends after a terrible loss and help him manage his emotions and fears by providing an explanation of certain phenomena.¹⁹² Nevertheless, Letter 17 contains many interesting

faculty of devising and handling *entia rationis*" (Verbeek 2015, 94). On this interpretation, Spinoza's account of reason is closer to imagination than intuitive knowledge. Such an interpretation appears to me problematic in the light of the *Ethics* where Spinoza clearly stated that adequate knowledge is provided by means of both reason and intuitive science and that beings of reason are inadequate ideas. However, this does not necessarily imply that Verbeek's interpretation cannot help to interpret Letter 12 written in 1662.

¹⁹² As Moira Gatens and Genevieve Loyd have stressed, Spinoza did not simply dismiss Balling's omens as an absurdity. Rather, he intended to clarify that the reality of omens does concern the mental realm of imagination instead of the

passages that show how Spinoza's reception of early modern medical debates influenced the development of his account of imagination (Rovere 2020, 110-113). Leaving out the question whether Spinoza truly believed in the possibility of omens or not, the constitution of the body in the explanation of images becomes fundamental to understand the mechanism of the imagination. Indeed, Spinoza clarified that "as for the omens you mention [...] I should think that this was not a true sigh, but only your imagination" (Letter 17). In particular, imagination is not anymore defined in opposition to the intellect in Letter 17 but, for Spinoza, its effects "arise from the constitution either of the Body or of the Mind" (Letter 17). Now, it is hard to establish whether Spinoza referred to the constitution of the body and of the mind because he still maintained a dualism between the two, or he intended to provide a more common and traditional conception of the body and soul.¹⁹³ I will limit myself to note that he added more details to clarify the nature of images and the laws of imagination. For him, when the imagination is "unfettered and free", it is "able to imagine certain sighs more effectively and vividly" than when human beings make use of their senses by focusing on actually existing things around them (Letter 17).

First of all, the theme of the tracks [*vestigia*] of the body, its internal constitution and the fact, that certain dispositions of the body are fundamental to explain how mental conditions can be determined by bodily components, shows that Spinoza did not neglect the medical and physiological debates of his time. Indeed, the echo of

external and physical world. However, Letter 17 also shows that Spinoza's rationalization of omens does not neglect the sorrows of his friends and not every passage can be understood as a simple explanation of certain phenomena (Rovere 2020, 113).

¹⁹³ As I will show in the next chapter, the theory of the body-mind identity is clearly formulated only in EIIp7 even though Spinoza clearly went in this direction in his early writings. I think that Spinoza endorsed his theory of the body-mind identity already in the TTP. However, if one accepts the idea that Spinoza maintained the Cartesian dualism in the early writings, the textual evidence is not enough to establish exactly when he developed his theory of the body-mind relationship. Indeed, even the rejection of Descartes' theory of mind, conceived as a substance, or of the distinction between will and intellect presented in the preface of Spinoza's *Principles of Cartesian Philosophy* do not imply the theory of the body-mind identity.

Descartes' physiology appears evident when Spinoza explained how certain images of non-present object can be so vivid in human mind as if they were present:

One morning, as the sky was already growing light, I woke from a very deep dream to find that the images which had come to me in my dream remained before my eyes as vividly as if the things had been true - especially [the image] of a certain black, scabby Brazilian whom I had never seen before. For the most part this image disappeared when, to divert myself with something else, I fixed my eyes on a book or some other object. But as soon as I turned my eyes back away from such an object without fixing my eyes attentively on anything, the same image of the same Black man appeared to me with the same vividness, alternately, until it gradually disappeared from my visual field. (Letter 17)

This example is provided by Spinoza to explain what happened in Balling's mind and the pure physiological nature of some images. There is a vague distinction between internal and external sensation, since Spinoza admitted that certain images can be originated by actually existing things or depend only on a psychological disposition of the mind. The broader meaning of the word "image," which refers to all ideas provided by the senses according to some affections of the body, implies that these ideas do not need to correspond and refer to actually existing bodies. In the *Treatise on Man*, Descartes affirmed that the motion of animal spirits might trace certain figures of the object on the pineal gland or on parts of the brain connected with it. The more certain motions of the spirits are repeated, the more the figures that they traced are present to the mind. Descartes continued by affirming:

That is why these figures are no longer so easily erased, and why they are preserved in such a way that the ideas which were previously on the gland can be formed again long afterwards without requiring the presence of the objects to which they correspond (AT XI 178).

Even though Spinoza did not mention the motions of animal spirits or the pineal gland, it is evident that he endorsed Descartes' theory of traces to justify certain phenomena caused by the imagination. Indeed, Spinoza stated in Letter 17 that:

The effects of the imagination arise from the constitution either of the Body or of the Mind. To avoid being tedious, I shall prove this for now by experience alone. We find by experience that fevers and other corporeal changes are causes of madness, and that those whose blood is thick imagine nothing but quarrels, troubles, killings, and things like these. We see that the imagination is also determined by the constitution of the soul alone; for as we find by experience, it follows the traces of the intellect in everything and links its images and words together in order, as the intellect does its demonstrations, so that we can hardly understand anything of which the imagination does not form some image from a trace (Letter 17).

Now, Spinoza in Letter 17 did not only use a Cartesian terminology, but probably made use of a more traditional medical terminology.¹⁹⁴ On the one hand, this confirms the thesis that Spinoza was familiar with physiological issues and debates which might have influenced the development of his novel account of imagination.¹⁹⁵ A rational and detailed explanation of the “mechanism” of imagination was absent or vague in the early writings, where Spinoza limited himself to affirm that the imagination is passive and opposed to the intellect. Even though he recognized that the imagination is deeply connected with bodily causes, only in Letter 17 he presented a more detailed analysis of the bodily components of the imagination and revealed a physiological background which can be brought back to Descartes' physiology. On the other hand, the idea of a free and vivid imagination is puzzling in relation to the ontological and cognitive premises of both the early writings and the mature works. It is impossible to establish how far Spinoza had already developed his

¹⁹⁴ For Rovere, there is also the influence of medical tradition provided by Dirk Theodor Kerckrinck and Thomas Feyens in this letter (Rovere 2020, 107-110).

¹⁹⁵ This is a claim that I have introduced in chapter 4.

account of imagination in relation to the thesis of the body-mind provided in the *Ethics*, since he still used a terminology which fits in with the Cartesian dualism.

As Bostrenghi (1996) noticed, a clear formulation of the thesis of the correspondence between the order of things and that of ideas is missing in Letter 17. This letter shows Spinoza's novel conviction that the mechanism of the imagination, its bodily components and its relationship with the intellect required a clarification. The insight that human imagination can order and connect images of the things, as the intellect does its demonstration, grounded what scholars have called Spinoza's science of imagination (Bostrenghi 1990, 49-52). It is likely that the publication of Descartes' *Treatise on Man* as well as the attendance to Steno's anatomical courses led Spinoza to introduce general physiological aspects and explanations in his mechanical explanation of the imagination which will characterize the *Ethics*. But in Letter 17 Spinoza did not talk much about the relationship between imagination and reason. The only exception is the idea that the imagination can order and connect figures and traces in the soul as the intellect does its demonstrations without being of any threat for human reasonings. On the one hand, there is a clear distinction between the order of imagination, which connects images and words, and that of the intellect, which provides demonstrations. On the other hand, the opposition between these two orders appears less sharp, insofar as Spinoza explained the imaginative way of ordering images in analogy with the demonstrations provided by the intellect. Now, these two aspects show that Spinoza still held a distinction between imagination and reason, but the operations of the imagination belong, "it is true, with operations of mind which do not follow the order of reason. But these operations are understandable through reason" (Gatens and Loyd 1999, 22).

Now, the question whether and how imagination and intellect are connected to some extent can partially be addressed by analyzing Letter 32 to Oldenburg written in 1665. Here, Spinoza provided a thought experiment about a little worm in the blood, after the

explanation of how different parts of Nature agree with the whole and cohere with other parts. This thought experiment begins with an account of how different elements can form the blood and how human beings exist in the whole Nature:

Let us feign now, if you please, that there is a little worm living in the blood which is capable of distinguishing by sight the particles of the blood, of lymph, [A: of chyle], etc., and capable of observing by reason how each particle, when it encounters another, either bounces back, or communicates a part of its motion, etc. Indeed, it would live in this blood as we do in this part of the universe, and would consider each particle of the blood as a whole, not as a part. It could not know how all the parts of the blood are regulated by the universal nature of the blood, and compelled to adapt themselves to one another, as the universal nature of the blood requires, so that they agree with one another in a definite way (Letter 32).

Two important points should be stressed: firstly, an imaginative effort is needed, insofar as we do not only have to feign that there is a little worm living in the blood, but also as we should attribute to it human perception and cognitive faculties. Secondly, Spinoza talks about the universal nature of the blood which the little worm fails to apprehend. Spinoza's strategy consists in two different, but interconnected, steps. First, he asks the readers to identify with the little worm, insofar as we can imagine that it distinguishes the part of the blood much like we see different things. Like us, the worm experiences the opposition of external things and the contrary effects that the parts of the blood cause. In a certain way, we are the worm itself and thus we are able to understand its point of view. However, we differ from it, insofar as we are more complex and live on a higher level of Nature. We know that all these parts agree with each other and form a whole, i.e., the blood, despite some minor differences. The motion of each part is regulated and understandable according to the universal nature of the blood. Briefly, we are aware of the worm's mistakes and of its limited point of view. The worm does not know

how all these parts cohere, since it is ignorant of the universal laws through which they are regulated.

The second step becomes evident when Spinoza asks us to feign that the blood is the whole universe and there is no cause outside of it. This is a clearly wrong assumption, since we know immediately that the blood is not the whole universe. The falsity of this assumption leads us to acknowledge the limits of the worm's condition and, since we have identified with it, we therefore apprehend our own limited epistemic condition in the infinite universe. Hence, Spinoza's thought experiment helps us understand our condition in Nature and forces us to change our perspective.

In the TIE Spinoza explained the object of fictions by explaining that fictions are possible as long as human beings had or could have inadequate ideas of certain things. For Spinoza, human beings can feign non existing things when they think that other human beings have fallen in the same error in which they fell in the past. This specific circumstance in the TIE implicitly stressed a relevant communicative dimension of fictions among human beings, which will become fundamental in the political works. While the possibility of a positive use of the imagination was excluded or at least neglected in the early writings, it is possible to think that Spinoza changed his mind as we have seen in Letter 17. This does not mean that imagination can really be conceived as self-determined and free. Rather, Spinoza seems to stress that imagination itself corresponds to a power of the mind. The thought experiment of the worm highlights a useful connection between imagination and reason even though Spinoza does not talk of fictitious ideas. Although the former does not provide any adequate idea, it has an important practical function that helps human beings proceed towards a better understanding of the whole Nature and abandon an anthropomorphic worldview. In fact, we can identify with the worm in virtue of the use of the imagination, but we do not make the mistake to think that the blood is the whole universe. This does not necessarily imply the existence of a free will or of a free imagination, but it relies on the fact that the thought

experiment proceeds from an imaginary scenario, the worm in the blood, to another one which appears more realistic from the human perspective, which concerns the human position in the universe. Assuming that Spinoza already conceived imagination as a power of the mind whose representations are not causes of errors *per se*, Letter 32 is an example of how the connection of ideas by means of imagination can foster a more rational understanding of things. This virtuous function of imagination neither excludes a possible opposition between imagination and intellect nor implies the assumption of two orders or laws of imagining – one as passive and the other as active. Instead, imagination is governed by the same laws of association and connection of different images both in the case it produces inadequate ideas and when it supports human reasoning. On the one hand, human beings can have a wrong representation of reality; on the other hand, they have adequate ideas which enable them to know the inadequacy of some ideas without falling in error.

Now, that Spinoza had not abandoned the distinction among ideas contained in the TIE is testified by Letter 37 to Bouwmeester written in 1666. Here, he answered Bouwmeester's question whether there exists, or could exist, a method that enables one to proceed "without either obstruction or weariness, in thinking about the most excellent things [*praestantissimae res*]" (Letter 37). Spinoza's answer is more complex than it might appear at first glance. Here, he was still using the word 'perception' and rephrasing many passages of the TIE even though he had already started working on the *Ethics*, where a distinction is made between different kinds of knowledge. Furthermore, the true method for achieving the knowledge of the highest things consists in the same distinction between ideas of the imagination and that of the intellect provided in the TIE. In fact, it consists

[...] solely in the knowledge of the pure intellect, and of its nature and laws. To acquire this, it is necessary above all else to distinguish between the intellect and the imagination, or between true ideas and the rest, namely, the fictitious, the false, the

doubtful, and absolutely all those which depend only on the memory (Letter 37).

In brief, the true philosophical method, the power of the mind and, finally, the distinction between true ideas and other kinds of ideas (fictitious, false, etc.) as described in Letter 37 are the same provided in the TIE. However, Spinoza also offered a practical solution in this letter which does not require any ontological-metaphysical knowledge of the first causes:

To understand these things, at least as far as the Method requires, it is not necessary to know the nature of the mind through its first cause, but it is sufficient to put together a little history of the mind [*historiola mentis*], or of perceptions, in the way Bacon teaches [*quo Verulamius docet*]. With these few words I think I have explained and demonstrated the true Method, and at the same time, shown the Way by which we may arrive at it. I should, however, still warn you that all these things require uninterrupted meditation, and a constant mind and purpose. To acquire these it is necessary above all to decide upon a definite way and principle of living, and to prescribe a definite end for oneself (Letter 37).

There are two aspects that it is important to stress. Firstly, according to Spinoza the true method makes it possible to distinguish the clear and distinct perceptions provided by the intellect from those perceptions which are provided by the imagination and depend on how external causes affect the human mind. Hence, the true method relies on the presence of true ideas and on the distinction between the intellect and the imagination. Secondly, a little history of the mind *à la Bacon* helps distinguish between different kinds of perception and ideas composing the human mind without any adequate knowledge of the first causes, but starting from a collection of experiences and affections of the mind. Now, this history seems to differ from the true method of the TIE in which the analysis of the innate and simple ideas of the mind was necessary to achieve a knowledge of things. The little history provides an immediate practical tool for distinguishing and ordering human perceptions, but it does not

provide a knowledge of the proximate causes. On the one hand, this satisfies the requirement of immediacy established by Bouwmeester, on the other hand, Spinoza highlights the need for an uninterrupted meditation and for certain life rules in order to achieve knowledge of the most excellent things at the same time.

One may suppose that Bouwmeester had not read Spinoza's TIE at that time, even though he was familiar with the development of the *Ethics*¹⁹⁶ and may have been interested in knowing the difference between his friend's method and Descartes', since Spinoza's *Descartes' Principles of Philosophy* had already been published in 1663.¹⁹⁷ But why did Spinoza refer to Bacon instead of Descartes in Letter 37?¹⁹⁸ The cultural and scientific framework stressed in the fourth chapter provides a general justification for using Bacon as example, since his works were well-known and were circulating in the Netherlands at that time. Spinoza probably expected his correspondent to easily understand what he meant by a Baconian little history.

However, there are two questions that arise from Spinoza's answer: first, does the reference to a little history *à la Bacon* add anything to the explanation of the method provided in the TIE or does it only relate to an argumentative strategy depending on the circumstances? Second, if it does concern specific features of Bacon's philosophical project, which are these aspects? Spinoza could have considered some aspects of Bacon's philosophy useful and practical tools to distinguish and order human perceptions, affections, and

¹⁹⁶ In Letter 28 Spinoza announced to Bouwmeester that he had already sent his friends, including Bouwmeester, the third part of his own philosophy, i.e. a part of the manuscript of the *Ethics*.

¹⁹⁷ In the Introduction to Spinoza's *Descartes' Principles of Philosophy*, Lodewijk Meyer stressed that Spinoza only explained Descartes' philosophy and not his own philosophical thought (see Meyer's preface in Spinoza 1985, 224-230). Furthermore, we only know Bouwmeester's question about the true method through Spinoza's own letter. Consequently, we do not know the circumstances and the exact content of Bouwmeester's letter.

¹⁹⁸ I do not wish to deny the influence of Descartes' work on Spinoza's thought and reflection on method. For instance, Cristina Santinelli has stressed the similarity between Descartes' *Discours de la méthode* and many passages of the TIE. However, the aim of this chapter is to offer a plausible explanation for Spinoza's reference to Bacon here. A comparison between these three authors goes beyond the specific aim of my analysis.

experiences. I will not suggest that Spinoza's little history can be regarded as a truthful interpretation of Bacon's philosophy, but rather that Spinoza may have seen specific aspects of it as providing a useful empirical-historical method. Furthermore, in his mature works in comparison to the early writings, Spinoza abandoned a conception of the mind as self-sufficient and stressed that habits, certain external things and the cooperation with other individuals are useful to increase human well-being. Even though Spinoza's philosophical project largely differed from Bacon's one,¹⁹⁹ he could well have seen certain elements of Bacon's philosophy as a useful tool to conceive the variety of ideas and affections composing the human mind. Bacon's *medicina mentis* in which is fundamental to distinguish between different kinds of experiences and to order different empirical data may have struck Spinoza as a useful and practical way to direct human mind. This compels us to address the question of the relationship between the true reflexive method in the TIE and his account of little history in Letter 37 which, as many scholars suggested, is applied in the TTP.²⁰⁰

In the TTP, Spinoza considered history, namely the empirical knowledge and classification of facts, a fundamental tool to understand and interpret the true meaning of Scripture as one might see in chapter VII of the TTP. The fundamental meaning of Scripture is practical and a method is required to grasp it. This view presents many similarities with Bacon's civil history, in which there is an internal distinction between "perfect history" and "ruminate history".²⁰¹ I limit myself to stress here that "perfect history" provides the material to understand the possible causes of human actions, passions, and the foundation of habits, and has a relevant practical

¹⁹⁹ Spinoza himself stresses that he completely disagrees with Bacon's conception of God and of man (see Letter 2). For instance, Spinoza thinks that God and nature are the same thing, while Bacon accepts that God created nature.

²⁰⁰ On Spinoza's debt with Bacon's account of civil history see Zac 1965, Verbeek (203, 101-103), Van Cauter (2016), (De Bastiani 2019, 308-314), Van Cauter and Schneider (2021).

²⁰¹ There are other internal distinctions that I will not discuss here (see Rusu, 2018).

function insofar as it provides well-founded precepts and living rules. It is plausible that Spinoza knew, at least in general, Bacon's account of history and his internal distinction. In particular, Spinoza's method for interpreting Scripture is based on a history of it which aims to clarify the fundamental practical meaning and identify the context and psychological causes of human action.²⁰² According to him, a history of Scripture is necessary to provide an explanation of what the prophets really heard and saw – and in what circumstances – and thus to understand the fundamental meaning of Scripture. In other words, as any historical books, the Scriptures cannot be interpreted by neglecting the historical circumstances, the opinions and the language writer.

In the TTP, published in 1670, Spinoza dealt with different issues, such as the relationship between theology and philosophy, and the demonstration that the freedom to philosophize does not threaten the peace of the commonwealth but is in fact fundamental for attaining it. In describing the different chapters of his work, Spinoza affirms that he “found nothing in what Scripture expressly teaches which did not agree with the intellect” and consequently that he “was fully persuaded that Scripture leaves reason absolutely free, and that it has nothing in common with Philosophy, but that each rests on its own foundation” (TTP, Pref.). This independence between Scripture and reason is demonstrated in seventh chapter, where Spinoza presented his method for interpreting Scripture:

To sum up briefly, I say that the method of interpreting Scripture does not differ at all from the method of interpreting nature, but agrees with it completely. For the method of interpreting nature consists above all in putting together a history of nature, from which, as from certain data, we infer the definitions of natural things. In the same way, to interpret Scripture it is necessary to prepare a straightforward history of Scripture and to infer from it the mind of Scripture's authors, by legitimate inferences, as from

²⁰² Marta Libertà De Bastiani has recently argued for the possible reception of Bacon's perfect history by Spinoza in her dissertation, publicly defended on June 20, 2020 (De Bastiani 2019, 308-314).

certain data and principles. For in this way everyone-provided he has admitted no other principles or data for interpreting Scripture and discussing it than those drawn from Scripture itself and its history-everyone will always proceed without danger of error. He will be able to discuss the things which surpass our grasp as safely as those we know by the natural light (TTP, VII, 2).

Here, Spinoza offered a comparison with the methods for interpreting nature and emphasized the pivotal role of the history of nature. This history should be understood in its classical meaning as the empirical knowledge, description and collection of data and facts,²⁰³ while the method should provide a foundation for each legitimate and plausible inference on nature and surpasses what human beings can know by the natural light, i.e. through their intellect. Spinoza clearly pointed out in this chapter of the TTP that this method, which starts from a collection of empirical data and experiences and is based on a history of Scripture, is the only one possible to understand the true meaning and teaching of Scripture, since this is largely composed of chronicles and miracles. This history consists of three elements: 1) an account of the nature and properties of the language of Scripture, 2) an index of the contents and 3) an analysis of the authorship, intended audience, reception, transmission, and canonization of Scripture. As Van Cauter and Schneider have pointed out, these three elements can easily be compared with Bacon's idea that "the educement and formation of axioms proceeds through three progressive stages": 1) a preparation of a natural and experimental history to lay the foundation of any interpretation of nature; 2) a construction of tables and arrangements of instances to organize and arrange the collected data; 3) the application of a true and legitimate induction (Van Cauter and Schneider 2021, 6).

This method and Bacon's account of history enables us to understand what the prophets saw, under what circumstances, and what they really wanted to teach. Only in such a way is it possible to

²⁰³ Given this conception of history, scholars have suggested a direct influence of Bacon on these passages and on Spinoza's method (see Zac, 1965, 29-32).

discern between the universal and most common things contained in Scripture, i.e. their fundamental principles and notions, and what was taught under specific circumstances (TTP, VII, 6):

In examining natural things we strive to investigate first the things most universal and common to the whole of nature: motion and rest, and their laws and rules, which nature always observes and through which it continuously acts. From these we proceed gradually to other, less universal things. In the same way, the first thing we must seek from the history of Scripture is what is most universal, what is the basis and foundation of the whole of Scripture, and finally, what all the Prophets commend in it as an eternal teaching, most useful for all mortals. For example, that a unique and omnipotent God exists, who alone is to be worshipped, who cares for all, and who loves above all those who worship him and who love their neighbor as themselves, etc. (TTP, VII, 6).

The aim of this historical method is to understand the fundamental teaching and practical content of Scripture. This understanding requires a previous collection of historical facts and data to be organized and evaluated by means of a scientific method. Empirical facts and data may be envisaged as causes from which one can infer relevant consequences, so as to achieve an understanding of the universal teachings of Scripture. This knowledge is not immutable because there is the possibility of discovering new facts. However, it provides a useful knowledge of things that, even though not derived from the knowledge of the first causes, is useful to understand God's existence and to regulate the human way of living in a way compatible with adequate knowledge. In conclusion, Spinoza drew inspiration from Bacon's method and account of history to develop his own method for interpreting Scripture. However, the way how Spinoza applied this method to the Scripture is far from Baconian, insofar as for Bacon the Bible was not an historical book as others on which such method could be applied. Instead, Spinoza clearly dealt

with the Scriptures as if they would be historical chronicles and narrations.²⁰⁴

It is important to note that the knowledge of the fundamental meaning of Scripture does not depend on the intellectual knowledge of first causes which can be attained only by means of the intellect. Rather, Spinoza addressed the problem of how human beings can organize experiences and historical facts so they may prove useful, and, from an operative and practical perspective, may help act in a way that fits with what the reason itself teaches. My suggestion is that in Letter 37 Spinoza considered Bacon's account of civil history²⁰⁵ a useful tool to direct the human way of living, as requested by Bouwmeester, even though this method does not suffice to achieve a true knowledge of eternal and fixed things. This knowledge and the distinction of different kinds of perception through a collection of facts and experiences cannot be compared to the knowledge of the nature of the mind through its first cause.²⁰⁶ However, it is important to highlight that this historical method reveals the deep connection between the *ratio vivendi* and adequate knowledge which characterizes Spinoza's mature thought. The adequate knowledge of things is the highest thing that human beings can strive for and uninterrupted meditation, living rules and certain habits are fundamental to achieve it (Santinelli, 2020, 91-92). As Spinoza clearly suggested in part V of the *Ethics*, in which he addressed the issue of the freedom of the mind, a constant effort is necessary to connect and order human perceptions:

For a greater force is required for restraining Affects ordered and connected according to the order of the intellect than for restraining those which are uncertain and random. The best thing, then, that we can do, so long as we do not have perfect knowledge

²⁰⁴ This important difference between Bacon's and Spinoza's conception of the biblical narrative is highlighted by Van Cauter and Schneider (2021, 9-14).

²⁰⁵ It is important to stress that Bacon's distinction between different faculties here and especially the pivotal role of memory in his account of history pose various interpretative problems.

²⁰⁶ Jo Van Cauter suggests that Spinoza's reference to Bacon in Letter 37 should be understood as a part of his reflections on provisional morality (see Van Cauter, 2016).

of our affects, is to conceive a correct principle of living, or sure maxims of life, to commit them to memory, and to apply them constantly to the particular cases frequently encountered in life. In this way our imagination will be extensively affected by them, and we shall always have them ready (EVp10s).

As I will show, in the TTP, the key role of memory, imagination and hence experience in transforming human praxis and behavior according to the order of the intellect was clearly acknowledged by Spinoza. Consequently, Spinoza's little history *à la* Bacon consists in an empirical and historical method which can have a strictly practical function. However, it also has a fundamental part in the process that leads human beings to the knowledge of higher things, since human beings, by changing their way of living, can also transform their way of thinking. In conclusion, Spinoza believed that a little history *à la* Bacon is a tool to immediately distinguish between different kinds of ideas, to order different perceptions, and to direct the human way of living toward the knowledge of the most fundamental things. Even though this empirical-historical knowledge cannot be compared to the true knowledge based on first causes, it nonetheless has a pivotal practical function and is a vital part of the process which can lead to the transformation of human ways of living and, consequently, human ways of thinking.

6.2. The Vivid Imagination of the Prophets in the TTP

In the previous section, I have shown both the continuities and the discontinuities in the development of Spinoza's theory of knowledge from the early writings to 1666. In particular, imagination was not only defined in opposition to the intellect in the *Correspondence*, but also in relation to the constitution of the body and the mind. The reference to the constitution of the body shows Spinoza's effort to explain the mechanism of imagination by paying attention to its bodily component in Letter 17. The influence of Descartes' *Treatise on Man* and of the contemporary physiological debates appears evident when Spinoza stressed the role of bodily traces in the

mechanism of imagination. Even though the opposition between imagination and the intellect is still present, I have suggested that in Letter 32 there might be a virtuous and positive use of imagination. Indeed, the thought experiment of the worm in the blood could help human beings proceed towards a better knowledge of things without erring. In a nutshell, one can see a change in Spinoza's account of imagination, since it is not only defined in opposition to the intellect or as the mind which is acted on, but becomes a specific power of the mind. Even though imagination usually leads to err, Spinoza did not conceive it as a cause of error in itself, and he argued that it could sometimes foster human reasoning without leading to err.

Finally, Letter 37 to Bouwmeester written in 1666 is an evident example of how certain aspects of Spinoza's thought were developed until 1666. Here, he mentioned a little history *à la* Bacon which appears as an empirical method to distinguish between different ideas. This little history is not as effective as the reflexive method presented in the TIE, but is nonetheless a useful tool to direct the human way of living, as requested by Bouwmeester. This historical method does not lead to the true knowledge of the first causes of things, but helps human beings distinguish between different ideas, affections and passions, and has therefore a practical function in directing human beings towards the knowledge of the higher things. A broader explanation of this method, as I have suggested, can be found in the seventh chapter of Spinoza's TTP published in 1770.

The TTP, on which Spinoza started working in 1665, is also relevant to investigate the development of Spinoza's theory of imagination and its practical function systematically. The purposes of the TTP are neither epistemological nor metaphysical, but theological and political. However, it reveals Spinoza's increasing attention to the bodily component of imagination, as well as the role of imagination to foster social cooperation and to determine human behavior. Furthermore, the relationship between imagination and reason was here addressed by Spinoza from different points of view and turns out to be more complex than a simple opposition. Spinoza ascribed the

prophets a vivid imagination through which God revealed to them certain knowledge. In particular, the comparison between Moses and Christ shows how certain ethical matters can be known by means of both imagination and reason.

In the TTP Spinoza aims to demonstrate, on the one hand, that theology and philosophy should be held separated, and, on the other, that the freedom to philosophize does not threaten the peace of the commonwealth but is in fact fundamental for attaining it. As scholars have noticed, in this work Spinoza also outlined many aspects of his mature theory of knowledge, his account of passions, and some metaphysical ideas.²⁰⁷ In the preface of the TTP, fear, hope and the desire of uncertain goods of fortune are acknowledged as the main cause of superstitions. For Spinoza, “if men could manage all their affairs by a definite plan, or if fortune were always favorable to them, no one would be in the grip of superstition” (TTP, pref). But since most human beings are not able to direct themselves towards the knowledge of certain and eternal things, i.e. a true knowledge of Nature, and their fortune constantly changed, since they are only a limited part of nature, every man is naturally inclined to superstition. While, for Spinoza, many authors have sought the origin of superstition in “the fact that all mortals have a certain confused idea of divinity”, he retained “that all men by nature are subject to superstition” (TTP, pref). This is due to the fact that superstitions rely on powerful passions, such as fear, hope, hate, which arise from the imagination. Since human imagination is necessarily very fluctuating and inconstant, human beings tend to vary their psychological states

²⁰⁷ For a general overview of the different contents and themes of the TTP see Melamed and Rosenthal (2010), James (2012) and Collacciani, Gramusset-Piquois and Toto (2021). On imagination in the TTP there were many contributions which still are fundamental in Spinoza scholarship, such as those written by Michèle Bertrand (1983) and André Tosel (1984). More recent contributions have been provided by Moira Gatens and Genevieve Loyd (1999) and Susan James (2020). On the importance of the TTP to investigate the development of Spinoza’s theory of imagination see Bostrenghi (1996, 107-133). Instead, on the development of his account of passions in comparison to the early writings, see Jaquet (2004, chapter 3).

easily according to the random affection of external things (TTP, pref).

All human beings are part of Nature and are overwhelmed with external causes; consequently, they incline to have a mutilated and confused conception of things, or they wonder on certain facts that they did not encounter as so far without paying attention to the fixed and eternal things. The fact that the power of external causes is far beyond the power of each individual implies that human beings connect many different things abstractly without knowing the first or proximate causes of things. This, in Spinoza's view, is exactly what characterizes the connection of ideas and affections by means of imagination. In other words, the more human beings know things by means of the imagination, the more powerful their superstitions are and the more it is difficult to eradicate them.

Everyone who is familiar with Spinoza's *Ethics* would immediately recognize the assumption of some metaphysical premises, such as the idea of the human beings as modes of God, or of his theory of affects, such as hope, fear and hate. The TTP enables to investigate how far Spinoza developed his mature account of imagination and the explanation of its mechanism in 1670. This development comes to light in the first two chapters on prophecy and on prophets. Here, Spinoza defined "Prophecy, or Revelation" as "the certain knowledge of some matter which God has revealed to men" (TTP, I, §1), while "a Prophet is one who interprets God's revelations to those who cannot have certain knowledge of them, and who therefore can only embrace what has been revealed by simple faith". As Vinciguerra (2020) points out, these definitions play a similar strategic and argumentative role to the definitions of substance and attributes in the *Ethics* (Vinciguerra 2020, 35-36). On the one hand, these general definitions would be easily accepted by theologians. On the other hand, they enabled Spinoza to argue that the knowledge revealed by God should not be conceived only as prophetic knowledge. Instead:

From the definition just given, it follows that natural knowledge can be called Prophecy. For what we know by the natural light depends only on the knowledge of God and of his eternal decrees. But because this natural knowledge is common to all men (depending, as it does, on foundations common to all), the common people, who always thirst for things rare and foreign to their nature, who spurn their natural gifts, do not value it highly. When they speak of prophetic knowledge, they mean to exclude natural knowledge (TTP, I, §2).

As it is often the case with Spinoza's arguments, apparently innocuous definitions lead to uncommon and radical implications. Indeed, by affirming that natural knowledge can be considered as a kind of prophecy Spinoza undermined the epistemic privilege commonly attributed to the prophets. Indeed, natural knowledge too offers an understanding of God and of Its eternal decrees even though in a different way in comparison to the prophetic one. The main question is in which respect these two kinds of knowledge differ, but as Spinoza stressed, knowledge acquired by means of the natural light is common to all human beings and, consequently, it enables every human being to know God and its eternal decrees. From this point of view, human natural light is the main cause of God's revelations instead of the prophetic knowledge. The distinction between divine and natural knowledge did not imply that natural knowledge is inferior to prophetic knowledge "in the certainty it involves, or in the source from which it is derived viz. God" (TTP, I, §2). Common people define divine knowledge as a kind of supernatural knowledge which extends beyond the limit of natural knowledge. But since Spinoza denied that anybody would attribute to the prophets a supernatural mind or nature, the distinction between prophetic and natural knowledge does not rest on different degrees of certainty.

As I have argued in the first chapter of my dissertation, the separation thesis of some Dutch Cartesian authors, such as De Reay, clearly limited the object of the philosophical knowledge to the knowledge of the natural world. Indeed, philosophy should provide

only explanations of God's creation without any claim on metaphysical and theological issues, such as the essence of God or Its attributes. By positing that natural knowledge does not differ from the divine one in respect of its epistemic content or in its certainty, Spinoza explicitly turned upside down the common understanding of relationship between philosophy and theology outlined by the Dutch Cartesian separation thesis. Indeed, Spinoza clearly stated that it is not possible to distinguish natural knowledge from the theological one in relation to different epistemic contents or degrees of certainty. Natural knowledge is divine too, insofar as it enables human beings to know God's essence and Its decrees with certainty. An adequate knowledge of the physical world and of certain natural phenomena is, for Spinoza, a kind of revealed knowledge by God which everybody can achieve through the natural light. In fact, one who knows God and Its decrees by means of the natural light can perceive and embrace a knowledge of things with as much certainty and excellence as the prophets, and not by faith alone (TTP, I, §3). This is due to the fact that the human mind contains God's nature objectively in itself and is a part of God's infinite intellect. Consequently, the human mind

has the power to form certain notions which explain the nature of things and teach us how to conduct our lives, we can rightly maintain that the nature of the mind, insofar as it is conceived in this way, is the first cause of divine revelation (TTP, I, § 4).

But since the divine revelation or prophecy is nothing else than the knowledge of certain matter which God revealed to human beings, this knowledge can be achieved either by means of the natural light, which provides a certain and distinct knowledge of God's nature, or, as we will see, by means of prophetic knowledge. Now, the first two chapters of the TTP do not clarify how Spinoza understood the nature of the intellect – to which Spinoza referred with the expression

“natural light” -,²⁰⁸ but they focus on the explanation of prophetic knowledge. The main question that Spinoza discussed is what characterized prophetic knowledge and what made it a divine knowledge. He warned that one should regard as prophecy “only what Scripture explicitly says was Prophecy or revelation, or whose status as prophecy follows from the circumstances of the narration” (TTP, I, §6). According to Spinoza, such hermeneutic approach to the Scriptures enables to note that:

If, then, we run through the Sacred books, we will see that everything God revealed to the Prophets was revealed to them either in words, or in visible forms, or in both words and visible forms. The words and the visible forms were either true, and outside the imagination of the Prophet who heard or saw them, or else imaginary, occurring because the imagination of the Prophet was so disposed, even while he was awake, that he clearly seemed to himself to hear words or to see something (TTP, I, §7).

In brief, prophetic knowledge is exclusively characterized by the use of media, such as signs and words. Now, the distinction between true visible forms and other depending on the disposition of prophets’ imagination recalls Letter 17 to Balling. Here, Spinoza attributed to human imagination the capacity of producing images of not actually existing things as if they were present to the contemplation of the mind. For Spinoza, there are images which arose from perceptions of actually existing things and other which depended on the internal disposition of human imagination. In other words, there is a distinction between external and internal sensations. However, this distinction is vague and is not enough to discern a free disposition of the imagination, as fantasy and self-determined faculties, and the perceptions and representations caused by actually existing external things. Indeed, in both cases imagination represents things as present to the mind in a similar way. For instance, the image of a thing that is

²⁰⁸ In the TTP, there is no clear distinction between reason and intellect. However, the way in which Spinoza describes the common notions which can be formed by means of the natural light may let us think that he mainly refers to the knowledge provided by reason, which is based on common notions.

actually seen, and that of a thing in dreams are not distinguished by the imagining mind.

Now, God revealed certain knowledge to the prophets either through real signs outside their mind or through psychological dispositions of the mind which were made particularly vivid by dreaming. As we have seen, imagination can produce certain images of non-present object as if they were present as the case of dreams shows.²⁰⁹ To interpret these different media through which prophetic knowledge is revealed, it is necessary to clarify whether there is more than a simple distinction within the imagination here. In other words, can the truth of words and visible forms be dismissed as a simple distinction within the imagination itself and, consequently, within inadequate ideas caused by external affections or internal disposition of the body? On the one hand, Spinoza referred to true [*verae*] signs outside the imagination, on the other hand, there is the term *imaginarius*, which is rarely used by Spinoza and denote sign which arose only from the actual disposition of the imagination. With this question in mind, I will focus on the cause of most prophecies in the Scriptures which are bound to the disposition of the prophets' bodies when they perceived God's signs. For instance, Spinoza stated that God revealed the laws to Moses through a true and external voice. The reference to a "true voice" does not mean that God really talked to Moses, but it should rather be understood in terms of an external affection whose causes are unknown, but which was outside Moses' mind. In light of the opposition between imagination and intellect, one might argue that God's true voice corresponded to an external affection on Moses's body whose proximate causes were unknown to him. Instead, according to Spinoza, God's revelation to Samuel was mediated through an imaginary voice and this can be inferred from the fact that

²⁰⁹ The continuity and discontinuities with Letter 17 to Balling are discussed by Bostrenghi (1996, 113), while Vinciguerra clarified the nature of the true voice in terms of external affections (Vinciguerra 2020, 45-46).

the voice resembled that of Eli, which Samuel was very accustomed to hearing, and so could also more readily imagine. For although God called him three times, he thought that Eli had called him (TTP, I, §9).

This is the same mechanism of the imagination presented in Letter 17 to Balling for explaining the reason why he heard the sighs of his child in dreams. Both Balling's omen and Samuel's revelation have in common that their signs do not correspond to actually existing things but depend on the connection and association of different images and bodily traces within the human mind. In particular, the reference to a previous affection is explicit in the case of Samuel which heard God's voice through that of Eli which he "was very accustomed to hear".

The question concerning the nature of the prophetic knowledge leads Spinoza to explain the power and mechanism of the imagination by which words and representations are originated. As Spinoza explicitly stated, the revelation happens only by images (TTP, I, § 14) which can be caused by external affection or imaginary signs. An exception is Christ who communicated with God directly and without the mediation of signs and bodies:

So, if Moses spoke with God face to face, as a man usually does with a companion (i.e., by means of their two bodies), Christ, indeed, communicated with God mind to mind.

We have asserted, then, that except for Christ no one has received God's revelations without the aid of the imagination, i.e., without the aid of words or images. So no one needed to have a more perfect mind in order to prophesy, but only a more vivid imagination (TTP, I, §19-20).

Spinoza did not define neither the body nor the mind in the TTP. Even the relationship between the two was vaguely addressed by Spinoza who in some passages of the TTP reposed a kind of Cartesian dualism. What Spinoza clearly posited here is that Moses' knowledge differs from Christ's one, insofar as the former was mediated by bodily affections, while the latter communicated without

the media of words and external signs and, implicitly, God's revelation to Christ was immediate. This comparison brings to light that prophetic knowledge is not originated by a supernatural intellect, but it requires a vivid imagination – which is not clearly defined either. Consequently, the difference between prophetic and natural knowledge concerns the way through which God's revelation is communicated to human beings. The meaning of this passage can be fully understood only in relation to the fourth chapter of the TTP. Here, Spinoza claims what follows:

[...] from the fact that God revealed himself immediately to Christ, or to his mind -and not, as he did to the Prophets, through words and images- the only thing we can understand is that Christ perceived truly, or understood, the things revealed. For what is perceived with a pure mind, without words and images, is understood (TTP, IV, §10).

Christ perceived God's revelation immediately and distinctly with the pure mind and, consequently, his knowledge of God's decrees and laws cannot be compared with that of the prophets which was always mediated by the body. In the TIE, Spinoza already warned against words, which are often adapted to the understanding and opinion of the many, so they often lead to err. In fact, words were retained by him ineffective to achieve a true knowledge of God and things, since signs rely on superficial connections and associations of different bodily affection in human memory and by means of the imagination. Since all prophetic knowledge relies on these signs and images, this knowledge is not certain and clear as that achieved by the natural light. Indeed, prophetic knowledge depends on the imagination which "is random and inconstant". This is due to the fact that imagination is characterized, as Spinoza underlined many times, by bodily components which can easily change under different circumstances. In the human mind different signs and images are connected and ordered by means of imagination according to the varying of circumstances, because of the change of the actual disposition of the body or by means of external affections. Since

Christ knew God's nature and decrees clearly and adequately, his knowledge of God's decrees was eternal, since it did not rely on a vivid imagination but on the natural light.

However, by highlighting the differences between how Moses and Christ received their revelations Spinoza did not intend to dismiss all prophetic knowledge as superstitious and as a source of inadequate ideas. Rather, he recognized that:

Since the Prophets perceived God's revelations with the aid of the imagination, there is no doubt that they were able to perceive many things beyond the limits of the intellect. For we can compose many more ideas from words and images than we can by using only the principles and notions on which our whole natural knowledge is constructed (TTP, I, §28).

Even though “the Prophets perceived God's revelations only with the aid of the imagination” they could perceive many different things and receive the knowledge of certain matters by God. On the one hand, Spinoza reassessed the relationship between natural and prophetic knowledge. On the other hand, he explained some passages of the Scriptures, in which were described what are commonly considered supernatural phenomena, through the mechanism of the imagination. Now, Spinoza did not reduce all prophetic knowledge to superstition by maintaining a sharp distinction between adequate knowledge by means of the intellect and inadequate knowledge provided by the imagination. Instead, he only affirmed that he ignored all causes and laws of the vivid imagination of the prophets. From Spinoza's point of view, “there's no need now for us to know the cause of Prophetic knowledge” (TTP, I, §27), since he just wanted to learn “what Scripture teaches, so that we can draw our conclusions from those teachings as we would draw conclusions from the data of nature” (TTP, I, §27).

In sum, in the first chapter of the TTP Spinoza reassessed the relationship between natural knowledge and prophetic knowledge in order to establish that the former is not inferior to the latter. Instead, God's revelation differs from the way through which a knowledge of

certain matters is known to the human mind. While every human being is able to know God's decrees by means of the natural light, only a vivid imagination and signs enabled the prophets to receive God's revelation. Hence, prophetic knowledge did not rely on a supernatural intellect but were mediated by signs which rested on the bodily disposition of the prophets, on external circumstances and were fostered by a vivid imagination. However, Spinoza did not deny that the prophets had a true knowledge of certain matters, but simply stated that this knowledge was bound to ethical purposes and the historical contexts.

In the chapter on the prophets Spinoza continued dealing with the origin of prophets' knowledge to show that their prophecies varied, "not only with the imagination and bodily temperament of each Prophet, but also with the opinions they were steeped in. So Prophecy never made the Prophets more learned" (TTP, II, § 2). First of all, Spinoza clarified that the certainty of prophetic knowledge cannot be provided by imagination alone, as it does not involve certainty. But he also argued what follows:

So to be able to be certain of things we imagine, we must add something to the imagination-viz., reasoning. It follows that, by itself, Prophecy cannot involve certainty. As we've shown, it depended only on the imagination. So the Prophets were not certain about God's revelation by the revelation itself, but by some sign (TTP, II, § 3).

This remark is relevant in two respects: first, imagination does not involve certainty, but it is not presented in opposition to certainty or as a cause of error in itself; second, Spinoza affirmed that certainty can be added to imagination through something else. According to this passage, human representations offered by the imagination can have certainty by an addition provided of reasoning or, as in the case of the prophets, by some true or imaginary sign. Even though Spinoza focused on the sign, this passage is enough to confirm that he went beyond the idea of a sharp opposition between imagination and intellect – to which reason belongs too. If certainty can be added to

imagination by means of reason, there must be a positive relationship between the two. Now, Spinoza did not clarify what this relationship consists in, but an example of it can be found in Letter 32, where imagination has a fundamental and positive practical function to foster the human way of understanding the universe. As I have suggested by analyzing Letter 37, it is not necessary that imagination is able to provide adequate knowledge. Rather, there is a connection between *ratio vivendi* and adequate knowledge which enables to ascribe a virtuous function to the imagination. The same function and connection, I will show, characterizes to some extent the knowledge and teaching of the prophets on moral issues.

In the second chapter of the TTP, the relationship between imagination and reason is absent and Spinoza only addressed the question of the importance of signs for prophetic knowledge. We have seen that a sign can make certain the representations of the imagination. However, this implies that “this Prophetic certainty was not mathematical, but only moral, as is evident from Scripture itself” (TTP, II, §3). What is important to notice, is that, for Spinoza, even though the revelation of the prophets needed some signs it does “have a great deal of certainty” (TTP, II, §4). In brief, Spinoza aimed to show in chapter II that:

The whole of Prophetic certainty, therefore, is founded on these three things: 1) That the Prophets imagined the things revealed to them very vividly, in the way we are usually affected by objects when we are awake; 2) That there was a Sign; 3) And finally-this is the chief thing-that they had a heart inclined only to the right and the good (TTP, II, §5).

This passage summarizes the core of the argument and posits all important aspects to understand Spinoza’s explanation of prophetic knowledge. First of all, this knowledge is deeply connected to the bodily constitution of the prophets, since the mechanism of imagination comes together with the mechanism which characterizes

bodily affections.²¹⁰ Consequently, the revelation to the prophets is always mediated by bodies and inseparable from the constitution of their body and its actual disposition. Moreover, the vivid imagination of the prophets and their prophecy differs from the common one, insofar as there is a sign, true or imaginary, which is corporal too. Indeed, it is only through the sign that prophets are what they are. The presence of the sign is fundamental from a psychological and social point of view: 1) it adds certainty to the imagination and 2) the prophets got the social authority to teach certain things only because of this sign.²¹¹ Spinoza did not limit himself to assess the different kinds of knowledge only in respect of their strict epistemic function and content. Instead, the attention to bodily components and to the social function of the prophets presents a novel perspective in comparison to the early writings in which the problem of passions was addressed only in relation to a cognitive therapy in which the mind was self-sufficient and the bodily affections irrelevant to achieve the Supreme Good.²¹² Finally, the previous passage points out that despite the prophets did not act guided by the intellect they always sought for what was right and good. By recognizing that the prophet's teaching and actions had an ethical foundation Spinoza, as we have seen in Letter 37 to Baling, attributed to experience and imagination a virtuous and positive role that was missing or only vaguely sketched in the early writings.

As the whole TTP show, the specific historical circumstances and certain experiences might play a fundamental role to guide human

²¹⁰ In the next chapter I will explain this relationship in detail by focusing on the Physical Interludes contained in the second part of the *Ethics*. Many authors (see Bostrenghi 2006, Gatens and Loyd 1999, Vinciguerra 2005) seem to have read the theory of the imagination in the TTP in light of the *Ethics*. However, for the sake of my chronological reading of Spinoza's work I try to read the TTP by itself, without adding too much information from the *Ethics*. This does not mean that I consider a comparative reading wrong. Rather, I aim to focus on the philosophical aspects which clearly show the continuity and discontinuity with the early writings.

²¹¹ On the twofold function that Spinoza attributed to the sign, see Vinciguerra (2020, 50-52).

²¹² It is true that the Supreme Good in the TIE seems to imply a social dimension, since it is defined as human beings which achieve together with other individuals if possible at the enjoyment of the perfect human nature. However, this definition does not play any role in Spinoza's explanation of how human being can achieve the perfect human nature.

beings towards the right way of life. For Spinoza, the main problem of the common interpretations of the Scriptures consists in the absolutization of the teaching of the prophets without taking into account the historical circumstances. Even though the knowledge achieved by means of natural light is certain *per se* and eternal, experiences and imagination can be useful for directing human actions towards the right and good. Even words and imaginary scenarios are addressed from a perspective in which their fundamental social role and function is considered.²¹³ What is important, is to understand the circumstances and individual aspects which determined this kind of knowledge. For instance:

Because the certainty the Prophets had from signs was not mathematical-i.e., a certainty which follows from the necessity of the perception of the thing perceived or seen-but only moral, and the signs were given only to persuade the Prophet, it follows that the signs were given according to the opinions and capacity of the Prophet. So a sign which would render one Prophet certain of his Prophecy could not at all convince another, who was steeped in different opinions. That's why the signs varied in each Prophet. Similarly, the revelation itself varied in each Prophet, as we have said, according to the disposition of his bodily temperament, according to the disposition of his imagination, and according to the opinions he had previously embraced (TTP, II, §7).

Coming back to the distinction between natural and prophetic knowledge, we can see that, while the natural light enables every human being to know things adequately and to form certain notions of things, the certainty of prophetic knowledge is bound to the specific circumstances in which the sign happened. Indeed, the sign, through which is added certainty to imagination, is based on the education, opinions, individual temperament and personal history of the prophets, as well as on the general historical circumstances. This clearly differs from the adequate knowledge of the laws of nature

²¹³ On the role of experience and narrative in Spinoza's philosophy, see Moreau (1994, 227-378). On the power of language and its role to support Spinoza's reason, see Hervet (2011).

which are fixed and immutable for everyone who known them by means of the natural right. However, the heterogeneity of the media – voice, visions etc. – does not undermine the possibility to teach things which are good and right for every human being. On the one hand, it is excluded that the prophets can be an authority in speculative matters. On the other hand, Spinoza argued that God has revealed to them a knowledge of certain matters through physical signs, which enabled them to teach useful and rightful rules of living.

To understand how the natural and prophetic knowledge come to meet in the ethical realm, it is necessary to move to the fourth chapter of the TTP on divine laws. Here, Spinoza provided a general definition of the term law and distinguished the natural from the human laws. While the former necessarily follow from the essence of things and are ontologically basic, human laws depend on human volitions and historical circumstances. Furthermore, he distinguished divine laws, which are defined as certain rules of living which aim to achieve human Supreme Good, from human laws. The former aim to attain a true knowledge of God, while human laws aim to foster human cooperation and preserve the peace of the State (TTP, IV, § 3). However:

For as we have shown above, that is another reason why we may refer things to God. It's in this sense that the law of Moses, although not universal, but accommodated for the most part to the mentality and special preservation of one people, can still be called God's Law, or divine Law. For we believe it was enacted by the Prophetic light (TTP, IV, §5).

For instance, the laws that Moses gave to the Hebrews were not simply laws for preserving the State, but they can be called divine laws because they were revealed to Moses by God. To clarify why Spinoza retained that Moses's decrees were true divine laws, one should consider what characterizes divine laws. They are “universal, or common to all men, for we have deduced it from universal human nature” (TTP, IV, §6). Furthermore, they are not rooted or bound to historical circumstances and narratives but eternal. In conclusion:

For since this natural divine law is understood simply by the consideration of human nature, it is certain that we can conceive it just as much in Adam as in any other man, just as much in a man who lives among others as in a man who lives a solitary life (TTP, IV, §6)

The divine laws are not only the universal laws of nature, but they correspond to all laws which do not depend only on historical circumstances. This implies that the best way to achieve the knowledge of these laws and of God's decrees is by means of human natural light and they "must be drawn from common notions certain and known through themselves. So it is far from true that faith in historical narratives is necessary for us to attain our supreme good" (TTP, IV, §6). However, coming back to the comparison between Moses and Christ we can see that the prophetic knowledge and biblical narrative is not necessary to know divine laws, but is still useful. Indeed, Moses' teaching and laws can be considered certain and true even if not based on reason.

As I have argued in the fourth chapter of my dissertation, Spinoza's explanation of the biblical narrative on God's prohibition to Adam focused on the fact that the latter understood God as a Prince or ruler instead of a teacher. Consequently, Adam perceived God's revelation "not as an eternal and necessary truth, but as a law, i.e., as something instituted, which profit or loss follows [...] solely from the pleasure and absolute command of some Prince" (TTP, IV, §9). The same thing happened to all prophets, even to Moses who was the truest prophet in Spinoza's view. Indeed, Moses did not understand God's revelation adequately, as an eternal truth, but as a decree which arose from Its will.²¹⁴ Consequently, the difference between Christ

²¹⁴ "For example, we must say even of Moses himself that by revelation, or from the foundations revealed to him, he perceived the way the people of Israel could best be united in a certain region of the world, and could form a whole social order, or set up a state. He also perceived the way that people could best be compelled to obedience. But he did not perceive, and it was not revealed to him, that that way is best---or even that the goal they were aiming at would necessarily follow from the general obedience of the people in such a region of the world. So he perceived all these things, not as eternal truths, but as precepts and institutions, and he prescribed them as laws of God. That's why he imagined God as a ruler, a

and Moses should not be sought, for Spinoza, in the truth of what they taught to other human beings. Instead, there is a relevant psychological difference which did not affect or undermine the rightness and goodness of their teaching from a practical and ethical point of view.

The comparison between Moses and Christ shows two different ways of knowing ethical matters with certainty as well as a possible a point of contact between imagination and reason from an ethical and practical perspective. Christ's knowledge of God's decrees corresponded to the dictates of reason. These dictates are aimed to seek human true advantages and "achieve this effect not by functioning as normative principles that command action and bind an agent's will to their observance" (Rutherford 2008, 489). Rather, they should be understood as an explanation of the necessary consequences which follow from a mind determined by adequate ideas. Instead, Adam, Moses and all other prophets knew the right way of living only by means of a mutilated knowledge which led them to conceive the necessity of God's decrees only as normative precepts. In other words, it is not the rightness or goodness of Moses's laws which is undermined, but the understanding of these laws which are not conceived in the light of the necessary connection of causes in Nature. Spinoza did not reduce the prophetic knowledge to a random and uncertain one, but expressly recognized the truth of God's revelation to the prophets. Such view appears far beyond the early intellectualism of the early writings and brings to light the problem of the body at the same time. The main puzzling issue in the TTP is the acknowledgement of a positive and practical function of the imagination despite its own capacity to provide adequate knowledge. The fruitful and necessary coexistence between imagination and reason is even more evident in Spinoza's explanation

lawgiver, a king, as compassionate, just, etc., when all these things are attributes only of human nature, and ought to be removed entirely from the divine nature" (TTP, IV, 10).

of the foundation of the republic provided in the sixteenth chapter of the TTP.

6.3. Right and Democracy between Imagination and Reason

Chapter XVI of the TTP offers an example of the relationship between imagination and reason from the political perspective of the foundation of the republic. This chapter opens the political part of the work in which Spinoza aimed to show that the freedom of judgment and the power to interpret the foundations of faith according to his own mentality does not harm the republic [*respublica*] and the right of the supreme power [*summa potestas*].²¹⁵ Moreover, he suggested that “it must be granted, and cannot be taken away without great danger to the peace and great harm to the whole Republic” (TTP, pref., § 13).

There are many reasons for focusing on this chapter in which Spinoza dealt with the natural and civil rights, the foundation of the republic and explain what the rights of the citizens and the supreme power consist in. For the sake of my investigation, I limit myself to show the key and fundamental role that Spinoza attributed to the imagination to bring human beings to live together in a commonwealth. In this chapter, Spinoza stated that the democratic state is the most natural one (TTP, XVI, 11). The fact that Spinoza considered the democratic state the best form of state is well-known. On the one hand, this statement is grounded upon the ontological premises of Spinoza’s philosophical work. On the other hand, the democratic state is also the best state in which both human imaginative and rational dimension can be easily satisfied and harmonized. Starting from the identification between natural right and power, Spinoza concluded that the democratic state is the most natural one, insofar as it enables the best expression of the natural

²¹⁵ The term *summa potestas* does not refer necessary to a singular individual, but it as a broader meaning in the TTP which refers to who owns an absolute power in a republic. A *summa potestas* is the king in a monarchy as well as an ensemble of human beings in a republic.

right of every individual and limits, at the same time, the dangerous aspects related to imagination and passions.

The influence of the natural law tradition of its time on Spinoza is immediately made clear by his definition of natural right:

By the right and established practice of nature I mean nothing but the rules of the nature of each individual, according to which we conceive each thing to be naturally determined to existing and having effects in a certain way. For example, fish are determined by nature to swimming, and the large ones to eating the smaller. So it is by the supreme right of nature that fish are masters of the water, and that the large ones eat the smaller (TTP, XVI, § 2).

This general definition²¹⁶ has often been discussed in relation to Hobbes and Grotius. However, Spinoza's reformulation of the same definition show that he did not limit himself to repropose a well-accepted definition, but, as usual for him, he used traditional concepts with a different meaning. Indeed, the identification between natural right and the power of things rested on the fact that "the power of nature is the power of God itself, and he has the supreme right over all things". But since "the universal power of the whole of nature is nothing but the power of all individuals together", each individual, as a part of nature, has the supreme right "to do everything it can, or that the right of each thing extends as far as its determinate power does" (TTP, XVI, § 2). In other words, the equality between natural rights and power is due to the fact that each thing is a part of the whole Nature.²¹⁷ The term *pars* has a twofold meaning in Spinoza's mature works. First of all, it refers to the fact that human beings are an expression of God's power, even though determined and limited. At the same time the notion of *pars* is also fundamental to understand the specific human condition, i.e. its limits, its dependence on other

²¹⁶ See Alexandre Matheron (1986) and Lucien Mugnier-Pollet (1989) on the relationship between Spinoza and the juridical tradition of his time.

²¹⁷ As Edwin Curley 1991 pointed out, the content of the *Ethics* was not known by Spinoza's contemporaries in 1670. Consequently, it was necessary for Spinoza that his identification of the natural right with the power of things could have been accepted without knowing his account of God. However, this identification is provided also in the *Political Treatise* where Spinoza explicitly referred to the ontological argument of the *Ethics*.

things, which implies a necessary connection with external things. On the one hand, human beings necessarily produce certain determined effects by their own nature. On the other hand, they are necessarily connected with the other parts, and overwhelmed with the power of external things, and undergoes many changes.²¹⁸ As I have shown in the first section of my dissertation, each part can produce effects in a certain and determined way according to the laws of its nature. This is clarified by Letter 32 and the fourth chapter of the TTP. The term *lex* is used by Spinoza in the TTP to cover a broader semantic field, in which are denoted the universal laws of motion and collision, the specific laws which characterize human imagination, reasoning and human nature, and the historical laws enhanced in a society. In the sixteenth chapter of the TTP all these different meanings are present and related to each other. Indeed, the relationship and continuity between human laws and natural laws is rooted in the supreme laws of nature which is the *conatus*²¹⁹:

Now the supreme law of nature is that each thing strives to persevere in its state, as far as it can by its own power, and does this, not on account of anything else, but only of itself. From this it follows that each individual has the supreme right to do this, i.e. (as I have said), to exist and have effects as it is naturally determined to do (TTP,XVI, § 2).

Spinoza only sketched his concept of *conatus* here which is defined in the *Ethics* as “nothing but the actual essence of the thing” (EIIIp7).²²⁰ There is no ontological distinction either between things

²¹⁸ On the notion of *pars* and its connection with the notion of mode I have already referred to Santinelli (2019) and argued that the notions of part and whole became relevant starting from Letter 32 written in 1665 (see Chapter 2). In the first chapter of the TTP Spinoza suggested that human beings can form common notions of things, insofar as their mind participate in God’s nature. However, Rousset (1986) showed that there is a relevant difference between participating in and be a part of Nature and argued that Spinoza clearly conceived the second kind of relationship.

²¹⁹ On Spinoza’s philosophy of law, see Belaif (1971) and Campos (2015).

²²⁰ The influence of Hobbes’ notion of *conatus* in the TTP and in the *Ethics* has been investigated by Scribano (2012) who stressed the importance of Hobbes’ *Leviathan* in development of Spinoza’s own notion of *conatus*, and by Santinelli (2018) who compared Spinoza’s *corpora simplicissima* and Hobbes’ notion of *conatus* in order to show a possible influence which began from a physical

and human beings or among human beings, that can be found on the notion of *conatus*. In particular, there is no difference “between men endowed with reason and those others who are ignorant of true reason, nor between fools and mad- men, and those who are sensible and sane” (TTP, XVI, § 2). Consequently, no hierarchy can be established between humans in respect of their *conatus* and both imaginative and rational inclinations are conceived as necessary expressions of their nature. Even though it is not explicitly affirmed in the TTP, the *conatus* does not refer only to a natural and physical inclination of the individual, but also concerns all human psychological inclinations. Therefore, Spinoza stressed that “the natural right of each man is determined not by sound reason, but by desire and power” (TTP, XVI, §3). In comparison to the early writings, Spinoza stressed here that the affective dimension is constitutive of human nature and cannot be neglected while making sense of human actions and ideas. Indeed:

Everyone is born ignorant of everything. Before men can know the true principle of living and acquire a virtuous disposition, much of their life has passed, even if they have been well brought up. Meanwhile, they are bound to live, and to preserve themselves, as far as they can by their own power, i.e., by the prompting of appetite alone (TTP, XVI, §3).

This philosophical position is far from the idea of a cognitive therapy in which the mind is self-sufficient, and the constitution of the body can be left aside. Human appetites and desires are not only secondary aspects of human mind which are originated by an inadequate knowledge of things, but they become constitutive element of human nature. Indeed, the desire is not a specific passion anymore which arose from inadequate ideas, but a leading affect in every human being – both those who act according to reason and those who act according to inadequate ideas and passions. From the political perspective of the TTP, both human reason and imagination

perspective. Furthermore, see Verbeek (2015) and Curley (1991) on Hobbes’ and Spinoza’s account of natural right.

has a relevance for human actions and for the foundation of a commonwealth. The necessity of Nature implies that human natural rights cannot be evaluated neither on the basis of moral or normative criteria nor with respect to reason alone. Each thing necessarily does what it retains to be more useful for itself and Nature, affirmed Spinoza, “prohibits nothing except what no one desires and what no one can do: not disputes, not hatreds, not anger, not deception” (TTP, XVI, § 4). In other words, all that happens necessarily follows from Nature, including human desires. It is only the anthropomorphic and limited point of view of human beings which induced them to evaluate things differently. But:

Nature is not constrained by the laws of human reason, which aim only at man's true advantage and preservation. It is governed by infinite other laws, which look to the eternal order of the whole of nature, of which man is only a small part. It is only by the necessity of this order that all individuals are determined to exist and have effects in a definite way. So when anything in nature seems to us ridiculous, absurd, or evil, that's because we know things only in part, and for the most part are ignorant of the order and coherence of the whole of nature, and because we want everything to be directed according to the usage of our reason - even though what reason says is evil is not evil in relation to the order and laws of nature as a whole, but only in relation to the laws of our nature (TTP, XVI, § 4).

The eternal and fixed order of the whole Nature is based on a necessary connection among causes which brings to existence everything that can follow from God's absolute infinite nature. However, this order is not conceived by the limited mind of human beings which orders, connects, and evaluates things according to its limited power and perspective, without knowing about the first causes. Now, Spinoza did not refer only to human inadequate ideas which are originated by the imagination, but to the laws of human reason which aim to enhance the humans' own advantages, and through which is established what is good and bad in relation to the

laws of human nature. It is not a simple opposition between adequate knowledge of Nature and inadequate ideas, since, as Donald Rutherford (2008) has pointed out, the dictates of reason are not normative principles that direct human beings toward the right way of living and which correspond to the universal laws of nature. Instead, Spinoza's dictates of reason describe the necessary consequences or effects of the mind's determination by adequate ideas and necessarily lead human beings towards their own good and advantage. This advantage does correspond to that of everything in nature, but of human nature alone.

I would therefore suggest that at stake here is the relationship between the laws of human nature, which expresses only a limited power in Nature, and the laws of the whole Nature, which are absolute and govern the action of everything. This does not imply an ontological discontinuity and heterogeneity within the whole nature, but only the existence of different degrees of causal power in Nature. The rational knowledge of the laws of human nature cannot be generalized and is not the same as the knowledge of the natural laws. For instance, taking into account Spinoza's interpretation of Adam's fall from Eden we can see that its causes should be sought in Adam's lack of knowledge. Indeed, he ignored that eating from the tree of the knowledge of good and evil would have had negative effects on him. This implies that Adam did not know that the fruits of that tree would harm him and limit his power and this would happen to every other human being. This was a consequence which necessarily followed from the composition between human nature and that of an external thing, but it cannot be ascribed to the whole Nature and all other things. This worldview stresses the finite power of human beings who are necessarily affected by external things and by strong passions. A pure cognitive therapy, which neglects the effects of external things and the intrinsic passionate dimension of human beings, is not enough to increase human perfection and well-being, which are deeply connected with their interaction with the

environment. Indeed, human beings need a society [*societas*] where they can cultivate reason and increase their power of acting together.

Even though every individual strives to preserve their being and seeks to achieve what is considered good for themselves this does not imply that individuals are able to achieve these things and that these things are really good for them. This is the reason why Spinoza's *conatus* does not exclude the possibility to establish which things and actions are more useful and good than others.²²¹ Insofar as things can agree with each other in different ways and degrees, good and evil depend on the causal interaction between the individuals' nature and external things. A broader explanation of Spinoza's notion of agreement has been provided in the first part of my dissertation and I will add something on it in the following chapters. Here, it suffices to notice that the notion of agreement plays a pivotal role in Spinoza's explanation of the TTP and is rooted in his general explanation of natural laws. From the acknowledgement of different degrees of agreement among things, which rests on the production of common effects through the interaction of different things, Spinoza argued that living together in a republic is more useful for human beings than living alone.

Since all individuals have the supreme right to strive toward everything which they judge good and useful for themselves, nobody would strive for something that is harmful. Even though human beings choose an evil they do it to avoid something more harmful. Nobody, according to a supreme law of nature, would act against their own interest. Neither the madman nor the wise man would act without seeking for what they considered their own advantage. But while the wise man is guided by reason and truly know what is good for him, who is determined only by passions and inadequate ideas acts according to external affections and the varying of causes without being able to achieve his true advantage. In brief, one who is not guided by reason, can act ineffectively without increasing their

²²¹ For an in-depth investigation of Spinoza's notion of *conatus* see Bove 1995.

wellbeing. Instead, there is nothing better than acting according to dictates of reason which necessarily direct human beings towards their wellbeing and true advantages. Since human beings share a common nature and similar laws, they can agree to the highest degree with each other and are more useful to each other than anything else. This implies that reason direct human beings to live together in a republic.²²²

Despite acting according to reason is the best human beings can do, for Spinoza reason alone is not enough to lay the foundations of a society in which most human beings, who are subject to different passions and opinions, come to live together. Indeed, “they would have tried this in vain if they wanted to follow only what appetite urges. For according to the laws of appetite each person is drawn in a different direction” (TTP, XVI, §5). Indeed, “a contract to direct everything only according to the dictate of reason” is necessary (TTP, XVI, §6), but cannot be made only by relying on reason. Most human beings blindly seek their advantages guided by inadequate ideas and passions so they would not be able to agree with each other and living according to the dictates of reason. What turned out to be fundamental in Spinoza’s view, is a use of imagination to direct human beings towards their common good:

A contract can have no force except by reason of its utility. If the utility is taken away, the contract is taken away with it, and remains null and void. For that reason it's foolish to demand of someone that he keep faith with you forever, unless you try at the same time to bring it about that breaking the contract you're entering into brings more harm than utility to the one who breaks it (TTP, XVI, § 7).

To persuade an individual not guided by reason to transfer “all the power he has to the social order” a scientific use of the power of

²²² The highest utility of the state is also stressed in chapter V of the TTP, where Spinoza highlighted the advantages that are guaranteed by the security of the state. For a comparison between the arguments provided in the fifth and sixteenth chapters of the TTP, see Moreau (2017, 11-19). A broader explanation of this anthropological premise is provided in EIV, where Spinoza clarified in detail the reason why human beings are more free in the state than alone.

imagination, from which certain passions arose, is fundamental. While reason cannot persuade all individuals to live according to common laws, imagination helps lead human beings to consider the utility of the republic through the power of certain passions, such as hope, or fear. Spinoza suggested in a further passage that “if a person has the supreme power, which enables him to compel everyone by force, and restrain them by fear of the supreme punishment (which everyone, without exception, fears), then that person has the supreme right over everyone” (TTP, XVI, §7). It is important to analyze this statement to understand the roots of this power. Assuming that everybody who is guided by reason would know that living in the state is one of the most useful things, Spinoza’s argument aimed to show how human beings, who are determined by inadequate ideas and passions, can be persuaded to live in the state together. As we have seen, the human mind could imagine no present thing as if they were true existing thing. To persuade most individuals of the utility of the republic, the aid of the imagination is fundamental to determine human actions through the two passions of hope [*spes*] and fear [*metus*]. These do not necessarily need a true external cause which produces certain effects on human beings. In other word, it is no physical force is necessarily requested. These passions can also be originated by means of the imagination which can determine human actions and passions. Furthermore, imaginary scenarios produces certain psychological effects which determine human actions too.²²³

In a nutshell, both reason and imagination are necessary to lay the foundations of a republic and to persuade human beings to make a contract to which they would hold on. There are two conditions which are necessary to bring human beings to live together in a republic: first, apart from being made relying on reason or determined by certain passions the contract is based on the acknowledgement of its

²²³ The importance of imagination, as well as the fact that the cause of fear and hope can also be the imagination itself without any true external cause, are stressed by Stefano Visentin (2001, 149-177). Furthermore, Susan James (2010) outlined the key role of human imagination and narratives which can also help to produce certain effects useful for every human being.

utility; secondly, the contract is maintained as long as the idea of its utility persists.²²⁴ The bond of the contract does not rest on a formal transfer of all natural rights or on certain historical circumstances alone, but is guaranteed by the psychological mechanism of the imagination which persuades human beings to live according to the dictates of reason. The difference between those who freely accept the contract since guided by reason, and others who are persuaded through passions and through the imagination, consists in a different evaluation of the contract's utility. Even though the contract directly depends on the acknowledgement of its utility, those who are guided by reason "would stand by their contracts completely, out of a desire for this supreme good, the preservation of the Republic" (TTP, XVI, §7). Those who are determined by passions and imagination would transfer their power because of the fear of punishment, or the hope of a greater good.

In brief, the sixteenth chapter of the TTP shows that Spinoza developed his political argument in a twofold direction: on the one hand, he offered some rational arguments to show the true utility of human cooperation and of society. On the other hand, from a concrete and practical perspective he took into consideration the constitutive affective dimension of human beings which can be managed by means of a practical use of imagination. It is the heterogeneity and conflict of different interests, true or imagined, which led Spinoza to the conclusion that the democratic state seems to be "the most natural state, and the one which approached most nearly the freedom nature concedes to everyone" (TTP, XVI, 11). This is because the contract does not lead to an immediate polarization of power, but it corresponds to the formation of a social order:

This, then, is the way [i] a social order can be formed consistently with natural right, and [ii] every contract can always be preserved

²²⁴ The second aspect shows the distance between Spinoza and Hobbes on the issue of promises. Indeed, for Spinoza promises are not enough to guarantee the contract and they do not bound human beings over their natural lights. On a comparison between Hobbes' and Spinoza's positions on promise see James (2012, 242-43) and Garrett (2010).

with the utmost good faith if each person transfers all the power he has to the social order, which alone will retain the supreme right of nature over all things. That is, the social order alone will have sovereignty, and each person will be bound to obey it, either freely, or from fear of the supreme punishment. The right of such a social order is called Democracy. This is defined, then, as a general assembly of men [*caetus universus hominum*]²²⁵ which has, as a body, the supreme right over everything in its power (TTP, XVI, 11).

The social order is the first step towards a more complex organization of the state [*imperium*] which can be democratic or monarchic, etc. The reference to “a general assembly of men” does not correspond to the democratic state. Rather, it has a radical and programmatic meaning here which shall reveal the democratic roots of each state. The identification between power and natural rights makes it impossible for the transfer of natural right to be permanent and absolute. This implies that the supreme power [*summa potestas*], even though They²²⁶ have an absolute right above every other individual in the society, is always so powerful as long as They own *de facto* his power. This means that the supreme power has an absolute right on every individual so long as the individuals follow the supreme power’s commands. Otherwise, their power is lost. In other words, the natural right of each individual can be taken back anytime as soon as the utility of the contract is not acknowledged.²²⁷ Furthermore, this aspect of supreme power’s absolute right limits concretely what can be commanded to the subjects, since the supreme power would put themselves in great danger by commanding absurdities. Instead, “to look out for their own interests and retain their sovereignty, it is incumbent on them most of all to consult the

²²⁵ On the connection of this sentence with the religious and political terminology of Spinoza’s age, see Visentin (2001, 173).

²²⁶ I use They to refer to the *summa potestas*.

²²⁷ Étienne Balibar has rightly pointed out the importance of the factual nature of the right which Spinoza ascribed to the supreme power. Spinoza’s tautological formulation of the supreme power aims to stress that the individual’s natural right can always be taken back.

common good, and to direct everything according to the dictate of reason” (TTP, XVI, § 9).

On this basis, the democratic state turns out to be the best one to maintain the equilibrium among the imaginative and rational dimension of human beings. On the one hand, in the democratic state different opinions are tolerated and can be expressed without danger for the individuals.²²⁸ On the other hand, the heterogeneity of appetites and passions is preserved, but they are limited in their most dangerous aspects, insofar as every decision is based on the judgement of many and in relation to what is common to the most. Consequently, a democratic state is more suited to seek the advantages of the many and to reveal which things are common to all human beings without undermining the constitutive imaginative and affective dimensions of the human nature.

To conclude, the analysis of the *Correspondence* and of the TTP has testified a development in Spinoza’s account of imagination and showed his attention for its bodily component. In particular, imagination is not defined only in opposition to the intellect, but Spinoza outlined some positive aspects which make it part of the power of the human mind. As I have tried to show, the explicit and implicit references to the power of imagination grow from 1664 to 1670. In particular, Letter 32 offers an example of a virtuous use of imagination to foster a rational understanding the whole Nature. Furthermore, the TTP provides many elements to assess the question of the power and the practical function of imagination, as well as of its relationship with reason. In comparison to the early writings, the TTP clearly shows the importance of an analysis and of a virtuous use of imagination to provide certain rules of living, which correspond to dictate of reason. Finally, the knowledge of the affective and

²²⁸ Spinoza’s account of freedom of philosophizing is more complex than a normative acknowledgement of free speech. On this issue, Laerke (2021) has recently pointed out that “Spinoza’s freedom of philosophizing is not grounded in a legal permission enshrined in civil law but in a natural authority inseparable from human nature” (Laerke 2021, 4). Spinoza’s positive notion of the freedom of philosophizing, for Laerke, is informed by Spinoza’s positive conception of freedom as self-determination provided in the *Ethics*.

imaginative dimension turns out to be crucial to lay the foundations of social life, which is fundamental to cultivate and to foster human rational knowledge and well-being.

Chapter 7

The Constitution of Mind and Orders of Ideas in the *Ethics*

With this chapter I conclude the chronological investigation of Spinoza's works. In the second part of my dissertation, the focus on the apparent gap between imagination and reason was to clarify specific aspects of the development of Spinoza's account of the human mind, and of his theory of knowledge. In the last chapter of this second part, I will briefly address Spinoza's thesis of the mind-body identity presented in the *Ethics*, its metaphysical roots, and philosophical implications. I will focus on Spinoza's explanation of the mind as the idea of an actually existing body and the explanation of the human mind on the basis of a general understanding of physical laws and of the features of bodies. I will argue that the account of mind as the idea of the body does not imply a materialist conception of the mind. Indeed, it is the equality between God's attributes of extension and thought that play a key role in Spinoza's argumentative strategy.

Moreover, I suggest that, while the thesis of the body-mind identity is important for Spinoza to overcome the Cartesian dualism and other conceptions of the body-mind relationship, the roots of Spinoza's theory of knowledge should be sought in the so-called *Physical Interludes*. Indeed, it is here that Spinoza makes a systematic use of its minor lexicon and of the whole-parts relationship to shed light on the notion of "individual," on the features of the human body and, consequently, on the constitution and power of the human mind. As many scholars have shown, Spinoza's account of the imagination

in the *Ethics* cannot be understood without referring to the *Physical Interludes*.²²⁹

My overall goal is to show that Spinoza's account of the human mind and its power consists of two interconnected arguments. On the one hand, the metaphysical specification of the nature of mind as a mode of God, developed in the first thirteen propositions of the second part of the *Ethics*.²³⁰ On the other hand, the explanation of the constitution and power of the mind, which begins with the *Physical Interludes* where Spinoza made a systematic use of the whole-part relationship. In confronting these two passages one cannot overlook that Spinoza's theory of knowledge largely rests on the minor lexicon provided in the *Physical Interludes*. Indeed, the statement that the mind is the idea of an actually existing body is not enough to deduce the mechanism of the imagination, and to ground Spinoza's account of reason. This does not mean that I neglect the importance of the metaphysical explanation of the human mind provided at the beginning of the second part. Rather, I intend to focus on the argument developed from the *scholium* of EIIp13 up to the explanation of different kinds of knowledge. These passages are deeply intertwined with Spinoza's metaphysical explanation of the mind, but they are not part of the same deductive argument. The *Physical Interludes*, which appears as a deviation from the main argument, provides some general physical laws as well as a discussion of the notions of part and whole, on which Spinoza develops his theory of knowledge and cognitive therapy in the *Ethics*.

In this chapter, I will contribute to my investigation of Spinoza's theory of mind by showing the continuities and discontinuities between the *Ethics* and the early writings. This chapter will be

²²⁹ It is the case of Vinciguerra (2005) who argued for the key role of bodily traces [*vestigia*] and of the distinction between kinds of bodies – such as the soft, the hard and the liquid ones – in understanding Spinoza's account of the mnemonical and imaginative mechanism.

²³⁰ Yakira (2015) has stressed the centrality of propositions 1-13 of the second part of the *Ethics* in relation to Spinoza's account of beatitude in EV. In his analysis of Spinoza's thesis of the body-mind relationship, he mainly focused on the first thirteen propositions of EII as if they constituted an autonomous and fully-detailed argument for a metaphysical explanation of the nature of the mind.

divided into three sections. Firstly, I will briefly address Spinoza's thesis of the body-mind identity which rests on the identity between God's infinite power of thinking and power of producing things. This thesis has metaphysical roots in EI, but also shed light on the consequences of Spinoza's "abstract" metaphysics for his theory of mind and in rejecting the Cartesian dualism. Since the true meaning of this thesis is debated in Spinoza's scholarship, I will take a stand in the debate following Jaquet's (2004) and Yakira's (2015) argument against the parallelism interpretation. Then, I will proceed by focusing on the second part of Spinoza's explanation of the nature and power of the human mind. This begins with the demonstration that the mind is the idea of an actually existing body, proceeds by positing the general features of the human body and by explaining the constitution of the mind in comparison with that of the body. Since Spinoza makes a large use of the notions of parts and whole, I will suggest that the definition of the mind as a mode of God does suffice to explain its cognitive power. Instead, only the introduction of a detailed account of the whole-parts relationship enabled Spinoza to provide the theory of knowledge the way he did in the *Ethics*. Indeed, it is only Spinoza's minor lexicon of *pars* and *totius* which enables to conceive the cognitive therapy and the power of the mind in its intermodal relationship, i.e. in relationship with other finite modes and things.

Secondly, I will focus on the physical roots of Spinoza's mature account of imagination, grounding my analysis on Scribano's argument that Descartes's *Treatise on Man* provided the foundation for the explanation of the mechanism of imagination. Furthermore, I will examine Spinoza's explanation of human imaginative power as a virtue provided in the *scholium* of EIIP17. This confirms the idea that imagination does not necessarily lead to err and is not opposed to other kinds of knowledge. Spinoza stresses that imagination alone does not enable to achieve an adequate knowledge of things, but also that having adequate ideas does not lead to a different representation of things. Indeed, adequate ideas do not correct the representations of

imagination, but they add the information which is necessary to achieve a complete and true knowledge of reality.

Third, I focus on the relationship between imagination and reason in order to show the continuity between these two kinds of knowledge. I argue that the conceptual pair, whole and part, is fundamental to interpret Spinoza's distinction between imagination and reason as well as that between the common order of Nature [*comunis naturae ordo*] and the true correlations among things. On the one hand, the common order of nature corresponds to a confused and mutilated knowledge of the correlation between the human body and external things (EIIp29s). On the other hand, the mind can perceive, by means of reason, certain objective correlations between the human body and external things. This distinction can be understood by taking into account Spinoza's novel account of common notions in the *Ethics* which is deeply connected with the notion of agreement. While many scholars have argued that Spinoza opposed sense experience and adequate knowledge, I intend to argue that the connection between imagination and reason bridges the gap between the rational and empirical aspects of his theory of perceptions. Indeed, reason is not simply an innate and abstract knowledge of the most universal laws of nature, but it is characterized by a gradual understanding of universal features – in a scale of degrees - and concerns both the laws of human nature and the universal laws of motion. This perspective has a twofold advantage: on the one hand, it stresses a relevant discontinuity between Spinoza's early and mature account of reason by focusing on its connection with the notion of agreement. On the other hand, it is possible to show that Spinoza's cognitive therapy implies affections, experiences and social cooperation in the *Ethics* too.

7.1. Two Interconnected Perspectives on the Human Mind

In the introduction of my dissertation, I have already stressed the importance of EIIP7 in which Spinoza posited that “the order and

connection of ideas is the same [*idem*] as the order and connection of things”. This thesis is well-known as Spinoza’s parallelism and as a key passage for the solution of the problem concerning the Cartesian dualism. It is worth to note that Jonathan Bennett, a prominent interpreter, stated from this passage to show that Spinoza “accepts and advocates a doctrine of parallelism between the mental and physical reals” (Bennett 1984, 127). According to this interpretation, this doctrine consists in establishing “a one-one relation correlating mental items with physical ones, mapping similarities onto similarities and causal chains onto causal chains” (127). For Bennett, this thesis established a relationship between extension and thought and, in particular, clarified the body-mind union without causal interactions between two different attributes. Indeed, there is a kind of mutual translation between ideas and things, as well as causal chains, which enable to relate things in extension to ideas in the attribute of thought. Historically, the origin of this interpretation was brought back to Leibniz, but it has become the dominant view in Anglo-American debates.

However, many scholars have criticized the parallelism thesis, since they considered this interpretation misleading and anachronistic.²³¹ The two main problems concerning the thesis of a body-mind parallelism consists in, on the one hand, the idea of two separated, even though parallel, order of things which would undermine the unity of God and, on the other hand, it leads to overlook the identity and equality between things and ideas which follows from the identification of God’s power of thinking with that of acting. According to Jaquet (2004), Spinoza did not intend to establish the possibility of a mutual translation between extension and thought. Instead, there is a much deeper connection between the two. In fact, Spinoza stated that “God’s [NS: actual] power of thinking is

²³¹ I have already mentioned Jaquet (2004) who pointed out the problem of the parallelism thesis. Furthermore, there is Yakira (2015) who recently focused on the origin of this interpretation, which he considers anachronistic and not pertinent to make sense of Spinoza’s position. Indeed, the parallelism thesis seems to be the results of contemporary interpretations of Spinoza’s theory of the body-mind union and not in relation to the philosophical framework of his time.

equal [*æqualis*] to his actual power of acting” (EIIp7c) and that “a mode of extension and the idea of that mode are one and the same thing [*una, eademque est res*], but expressed in two ways” (EIIp7s). For Jaquet, there is not only a mutual translation between the two attributes here, but the equality between things and ideas is addressed from the perspective of modes and in respect to the identification of God’s power of thinking with the power of producing things. In Yakira’s view (2015), the parallelism thesis risks to overlook some important issues of the *Ethics*, such as the connection between Spinoza’s theory of mind and that of beatitude provided in EV, and reduces Spinoza’s theory of mind to a solution of the Cartesian Dualism. “The identity of order stated by proposition 7 is more than isomorphism or grounds for a reciprocal mapping of two independent series of events or things” but “*causa sive ratio* and *idea sive cognitio* mean that causality is coextensive and, indeed, identical, with intelligibility” (Yakira 2015, 104). The reference to and criticism of Bennet’s position is evident here. In sum, according to Jaquet and Yakira, the parallelism thesis would not enable to see clearly the necessary and deep identity between God’s thinking and acting which is rooted in Spinoza’s metaphysics and fundamental for his theory of knowledge.

It is not necessary to address these interpretations in detail here, but the analysis of this interpretation is useful to underline a few aspects of Spinoza’s theory of mind and knowledge in the *Ethics*. I will follow two interconnected paths: first, I focus on the abstract metaphysical explanation of the mind as the idea of an actual existing body in the first thirteen propositions of EII. Here, it is possible to see how the general ontological and metaphysical roots of the first part of the *Ethics* are applied to clarify the specific ontological status of the human mind and its nature. Second, I address the explanation of the constitution and cognitive power of the mind which rests on the *Physical Interludes* and provides a clarification of the constitution and the power of the mind which does not overlap the previous metaphysical explanation of the mind.

At the beginning of EII, Spinoza affirmed that his aim was to address the issues concerning “the knowledge of the human Mind and its highest blessedness” (EIIpref.). It is worth noticing that the first definition of this part concerns Spinoza’s notion of body as “a mode that in a certain and determinate way expresses God's essence insofar as he is considered as an extended thing” (EIIdef1). Furthermore, he offered some statement of facts as axioms, such as “man thinks” (ax2) and “We feel that a certain body is affected in many ways” (ax4). These means that Spinoza did not aim to show, as Descartes did, that human beings are composite by thinking and extended substances. Even though Spinoza stated only in EIIp13c that human beings are constituted by body and mind, the fact that they think and feel a certain body is true and does not require any demonstration.

What is at stake at the beginning of EII is the clarification of the specific relationship between the human mind and the way in which the attributes express God’s essence. This issue concerns what I have previously called the first path of Spinoza’s demonstration of the nature of the human mind. In EI, the reference to the attribute of thought and extension occurs only in some scholia, since Spinoza dealt with the nature of God in general which consists in infinite attributes.²³² Instead, the first two propositions of EII aimed to narrow the focus by demonstrating that extension and thought are two attributes of God (See EIIp1 and p2) and Spinoza excluded any causal relationship between them as well as their modes. Hence:

From this it follows that the formal being of things which are not modes of thinking does not follow from the divine nature because [God] has first known the things; rather the objects of ideas follow and are inferred from their attributes in the same way and by the same necessity as that with which we have shown ideas to follow from the attribute of Thought (EIIp6c).

Once again, there is no distinction between God’s power of thinking in the attribute of thought and the production of things in

²³² I have shown in the first part of my dissertation that Spinoza’s attention for the attribute of extension was deeply connected with its theological implications.

extension. Indeed, Spinoza stressed that ideas and objects follows from God's attribute of thought and that of extension "by the same necessity [*eademque necessitate*]". Spinoza's argument that the order and connection of things is the same as the order and connection of ideas concerns the relationship between the *connexio causarum* in these two attributes. There is not only a rejection of any causal interaction between different attributes and the acknowledgment of a kind of translatableness. Rather, there is another argument for the identification of God's *potentia absoluta* with the *potentia ordinata*, of Its power of thinking and that of producing things, which is offered from the specific perspective of finite things. While this identity was established by Spinoza in EI, insofar as all attributes express the same eternal and infinite essence of God, here he went beyond the general metaphysical demonstration of this identity by focusing on the more specific issue of the nature of the human mind.

To demonstrate the thesis the identity between the order of things and of ideas, Spinoza referred to EIax4 in which is established that the knowledge of each effect depends on the knowledge of its cause. Consequently, the identification of the order of things and of ideas reiterates the concept that God's absolute infinite power necessary implies an infinite power of thinking and acting (EIIp7c9). However, the importance of EIIp7 can be understood only in relation with the broader explanation of the mind presented in the first thirteen propositions of EII. It is a key passage to specify the nature and power of the mind in relation to God's essence, but it does not suffice to understand Spinoza's argumentative strategy. Looking at Spinoza's own example of the circle and its idea as one and the same thing, it is evident that their identity should be intended as a causal one:

When I said [NS: before] that God is the cause of the idea, say of a circle, only insofar as he is a thinking thing, and [the cause] of the circle, only insofar as he is an extended thing, this was for no other reason than because the formal being of the idea of the circle can be perceived only through another mode of thinking, as its

proximate cause, and that mode again through another, and so on, to infinity (EIIp7s).

The idea of the circle and the extended circle are understood under two different attributes which express the same essence. Since God's essence and Its infinite power do not vary according to different attributes, Spinoza concluded that the *ordo* and *connexio* is the same in both attributes. The example of the circle aims to show that both ideas and things shall be conceived according to the same infinite connection of causes even though with respect to two different attributes. Consequently, the identity of orders is not based on a possible projection or a mutual translation between two realms. Rather, it is the common origin, i.e. God's essence and Its infinite causal power, which necessarily leads to posit that the order and connection of things and ideas are the same. The equality of the causal power expressed by each attribute and the logical connection between the necessary existence of effects and that of their causes compelled Spinoza to talk about one and the same order. The idea of a parallelism neglects or, at least, leaves in background the core aspect of this identification, insofar as it points out the mutual translatableness of two orders instead of their identity in respect of a necessary causal connection.²³³

In the next propositions, Spinoza proceeded towards the explanation of the nature of the human mind. However, his argument is not without problems for the reader. First of all, the thesis of two identical orders and connections of causes becomes puzzling in relation to EIIp8. In this proposition, which immediately follows the identity of the order of things with that of ideas, Spinoza affirmed that:

The ideas of singular things, or of modes, that do not exist must be comprehended in God's infinite idea in the same way as the formal essences of the singular things, or modes, are contained in God's attributes (EIIp8).

²³³ I think that this is the main point of Jaquet's argument and of her criticism of the parallelism reading (2004).

This passage has haunted scholars so far, since it rests on the previous established correspondence between things and ideas. By talking of non-existing singular things Spinoza seemed to establish a temporal distinction between these two orders. Some scholars suggested that it is necessary to distinguish between the order of essences and that of existence of things. According to this reading, the ideas of singular things are contained in God's infinite ideas eternally even when the corresponding singular things do not exist yet. This interpretation goes together with the acknowledgment that all singular things necessarily come to exist at a certain point. However, this introduces a puzzling discrepancy between ideas and things, between an eternal dimension of ideas and the existence of the bodies in duration.²³⁴

Without expecting to solve such intricate question, I would suggest to read this passage in the light of Parrochia's remark that the order of essences and the order of Nature, understood as the order of existences, concur to specify the same issue from two perspectives – viz. that of the relationship between the things' essence and God's essence, and that of the intermodal relationship among modes (1985).²³⁵ These two orders coincide to some extent. Essence and existence of particular things can be distinguished from each other, insofar as the essence of particular thing does not necessarily imply existence.²³⁶ But this distinction is not possible as long as we conceive the particular things in relation to the fix and eternal order of Nature. To support this insight, I think that it is helpful to note that, for Spinoza, “the idea of a singular thing which actually exists has God for a cause not insofar as he is infinite, but insofar as he is considered to be affected by another idea of a singular thing which actually exists” (EIIp9). The reference to the actual existence of a thing should not be understood in opposition to a potential existence. According to Laerke's reading (2011 and 2013), the kind of causality

²³⁴ For an analysis of the problems of these propositions and a possible interpretation, see Morfino (2016b).

²³⁵ I tried to explain this aspect in the previous part of my dissertation see 3.4.

²³⁶ This interpretation is also provided by Pascal Sévéric (2017, 41-53).

of the actual infinite chain of finite causes shall always be conceived, for Spinoza, as God's infinite causal power even though expressed in a determined way. In the demonstration of EIIp9, one can see how Spinoza refers to EIIp7:

But the order and connection of ideas (by P7) is the same as the order and connection of causes. Therefore, the cause of one singular idea is another idea, or God, insofar as he is considered to be affected by another idea; and of this also [God is the cause], insofar as he is affected by another, and so on, to infinity, q.e.d. (EIIp7dem).

From a metaphysical explanation of God's essence and Its attributes, Spinoza proceeded towards a more detailed clarification of the human mind as a mode of God among other modes. The previous passage clearly shows the interconnection between the two paths that I have indicated above. On the one hand, God's absolute infinite power of thinking and acting addressed in EI led to conceive the order of things and ideas as one and the same. On the other hand, the same infinite causal power is expressed by each particular thing according to the intermodal dynamic connection with the other things.

Spinoza's account of the mind cannot neither be reduced to a simple solution of Cartesian dualism nor be understood in the light of a distinction among different faculties which characterized many traditional theories of mind and soul. Rather, the thesis of the body-mind identity is rooted in the attribution of extension to God's essence as well as the identification between *potentia absoluta* and *ordinata*.²³⁷ Since extension belongs to God's attributes and It necessarily produces all possible things, certain interpretations of the

²³⁷ Spinoza's theory of the mind has been mostly investigated in continuity and in discontinuity with Descartes's one. For instance, Messeri (1990) argued that Spinoza's account of mind reveals a sharp criticism of Descartes's theory of mind. A broader comparison between Spinoza's and Descartes' accounts of mind was undertaken by Santinelli (2000), while Nadler (2005) stressed Spinoza's radical anti-Cartesian conception of the mind. A broader overview of the novelty of Spinoza's account of mind was provided by Yakira, who has argued that Spinoza's account of mind in the *Ethics* is an encompassing criticism of different traditional views – from the Scholastic and medieval Jewish tradition to Descartes (2015, 53-92).

body-mind union are undermined *a priori*. For instance, a conception of the human mind as a simple substance is excluded (EIIp10),²³⁸ since the human mind depends on God and is, at the same time, inscribed within a necessary connection of causes.

The main question is the following: why did Spinoza not offer the same conception of the mind in the early writings, although he already endorsed the identification of God's power of thinking with that of producing things, and attributed extension to It? In the first thirteen propositions of EII, Spinoza argued that "the first thing that constitutes the actual being of a human Mind is nothing but the idea of a singular thing which actually exists" (EIIp11). To explain the nature of the mind, Spinoza used the same relationship which relates an idea to its object [*ideate*]. At this point, he did not reveal which is the kind of object which constitutes the actual being of the mind. But since each human being thinks and feels their body through affections, their essence has to be constituted both by modes of the attribute of thought and by that of extension. These two aspects of human essence do not correspond to a composition among really different things, but, on the one hand, their relationship is presented as the relationship between an idea and its object, on the other hand, in terms of the whole-parts relationship. Indeed, Spinoza concluded:

From this it follows that the human Mind is a part of the infinite intellect of God. Therefore, when we say that the human Mind perceives this or that, we are saying nothing but that God, not insofar as he is infinite, but insofar as he is explained through the nature of the human Mind, or insofar as he constitutes the essence of the human Mind, has this or that idea; and when we say that God has this or that idea, not only insofar as he constitutes the

²³⁸ See also EIIp10s: "Everyone, of course, must concede that nothing can either be or be conceived without God. For all confess that God is the only cause of all things, both of their essence and of their existence. I.e. , God is not only the cause of the coming to be of things, as they say, but also of their being. But in the meantime many say that anything without which a thing can neither be nor be conceived pertains to the nature of the thing. And so they believe either that the nature of God pertains to the essence of created things, or that created things can be or be conceived without God--or what is more certain, they are not sufficiently consistent."

nature of the human Mind, but insofar as he also has the idea of another thing together with the human Mind, then we say that the human Mind perceives the thing only partially, or inadequately (EIIp11c).

I have insisted much on the conceptual relationship between Spinoza's substance-mode relationship and his minor lexicon concerning the notions of part and whole. In my opinion, the argument, provided in the first thirteen propositions of EII, includes a shift from the more abstract substance-modes relationship to the whole-parts relationship which characterizes the dynamic causal interaction among different modes. The importance of this aspect with respect to Spinoza's mature theory of knowledge is anticipated by the previous passage that "the human Mind perceives the thing only partially, or inadequately", insofar as God has an idea of another thing and, at the same time, the idea of the human mind. In the early writings, the mind is conceived as self-sufficient and, since it owns an innate idea of God, a reflexive method enables it to achieve knowledge of things. Spinoza vaguely talked about the human beings as parts of God but this was deeply connected with a pure intellectualist view of the union of the human mind with God. A development in Spinoza's account of mind can be acknowledged in the *Ethics* in comparison with the early writings as soon as the notions of whole and part are taken into account.

As scholars have rightly pointed out, Spinoza did not conceive God as a subject of knowledge in the *Ethics*.²³⁹ He maintained a key connection between the idea of God, which is an immediate infinite mode of thought, and the particular human mind whose intelligibility

²³⁹ Ursula Renz (2010) carefully analyzed Spinoza's reference to the idea of the mind as a part of God's infinite intellect. She has pointed out that in EIIp12 the human being as a subject is rooted in God's infinite intellect on which human thinking depends. Furthermore, she also stressed that EIIp11c presents for the first time the problem of the adequacy of human knowledge. According to Renz, Spinoza began from EIIp11 onwards to develop his theory of the human being as a subject which makes experiences and knows different things. What is important, is that Spinoza does not conceive God as a subject of knowing but only human beings (Renz 2010, 176-189). A similar view is provided by the phenomenological reading of Yakira (2015, 93-160).

is rooted in God's infinite intellect. By conceiving the mind's limited nature as a part, in comparison with the infinite idea of God Spinoza anticipated the cognitive and anthropological implications of the double meaning of *pars*: on the one hand, the human mind is a part of God's infinite power of thinking, on the other hand, it is an idea which is necessarily connected with other ideas and determined by their causal power.

The explanation of the human mind is concluded by demonstrating that the human mind necessarily perceived whatever happens in its constituting object, i.e. an actually existing body, (EIIp12) and that "the object of the idea constituting the human Mind is the Body, or a certain mode of extension which actually exists, and nothing else" (EIIp13). Human beings consist of mind and body, and the latter necessarily exists (EIIp13c). But with the argumentation provided as so far, Spinoza retained to have clarified only the nature of the body-mind union. Following Jaquet (2004) and Yakira (2015), the core of Spinoza's theory of mind consists in the identification of ideas and objects rooted in that of God's infinite power of thinking with its power of acting. The implications of this identification are developed throughout the first thirteen propositions and bring to light that the body-mind identity does rest on the idea-object identity. However, this is only Spinoza's first step to clarify the nature and power of the mind within the fixed and eternal order of nature. From EIIp13s on the focus of Spinoza's investigation changes in the direction of the dynamic and intermodal relationship which correspond to the second path presented above.

The scholium of EIIp13 is the prelude of Spinoza's *Physical Interludes* in which a few laws of motion and collision, the definitions of different kinds of bodies and a description of the general features of the human body are provided. The materialist readings of the theory of mind provided in the *Ethics* usually point at the fact that, for Spinoza, "no one will be able to understand it [the union of the Mind and Body] adequately, or distinctly, unless he first knows adequately the nature of our Body" (EIIp13s). Yet, the following passages in

Spinoza's argument cannot be deduced by the previous thirteen proposition. Indeed, Spinoza undertook a general clarification of what bodies can do and in what they consist, in order to clarify the constitution of the mind, its perfection and capacity to perceive many different things. The fact that the power of the mind requires the understanding of the power of the body does not imply a materialist view of Spinoza's conception of the mind. Rather, a general understanding of the laws of nature and of the features of bodies implies an understanding of key aspects which characterize the connection of causes. Knowing the general constitution of bodies, how they causally interact with each other, is, ultimately, the same as knowing the constitution of the human mind, its power and way of perceiving things. Taking seriously the thesis of the body-mind identity, we know the power and capacity of the mind by understanding that of the human body, since ideas and objects are two identical determined expressions of God in two different attributes. This brings to light the importance of the mereological structure, which characterizes the modal universe, also in relation to Spinoza's theory of mind.

Until EIIp13s there are only few hints which lead to grasp the importance of the notion of part. In the appendix to the first part, Spinoza criticized the anthropomorphic view of God and Nature by pointing out that human beings are only a part of Nature. Instead, after the *Physical Interludes* of EIIp13s, one can find a systematic use of the notions of whole and part in the explanation of epistemological and ethical issues. As Spinoza himself noticed, "for the things we have shown so far are completely general and do not pertain more to man than to other Individuals, all of which, though in different degrees, are nevertheless animate" (EIIp13s). To understand the nature and power of the human mind, it is not enough to know that the mind is a mode of God's attribute of thinking or the idea of an actually existing body. This knowledge is the *conditio sine qua non* to proceed towards an understanding of the nature of the human mind, but it is not sufficient to grasp its specific power of thinking, and the

causes of different cognitive mechanisms. This is evident when Spinoza pointed out that

to determine what is the difference between the human Mind and the others, and how it surpasses them, it is necessary for us, as we have said, to know the nature of its object, i.e., of the human Body. I cannot explain this here, nor is that necessary for the things I wish to demonstrate. Nevertheless, I say this in general, that in proportion as a Body is more capable than others of doing many things at once, or being acted on in many ways at once, so its mind is more capable than others of perceiving many things at once. And in proportion as the actions of a body depend more on itself alone, and as other bodies concur with it less in acting, so its mind is more capable of understanding distinctly (EIIp13s).

There is a scale of different degrees both in the material world and in the mental universe which correspond to different powers of acting or thinking. Indeed, in the light of the equality between the order of things and ideas Spinoza concludes that the more a body is powerful, the more a mind is able to understand things adequately. A question commonly raised by interpreters about Spinoza's argumentation in EII concerns the reason why a physical explanation is necessary to clarify the power of the human mind. Excluding a materialist reading, there are many metaphysical, theological and contextual aspects which might have influenced Spinoza's approach. The perspective on the attribute of extension easily reveals the distance of Spinoza's view from the theological question concerning the immortality of the soul (see Nadler, 2005). Furthermore, it might also be inspired by Descartes's *Treatise on Man* in which it is explained what a mind perceives only by means of the mechanical constitution of the body (Henry 2016). Finally, there is the issue concerning the whole-parts relationship which was fundamental in logical, metaphysical and physical debates (see Laveran 2014).

One should not overlook the fact that Spinoza assumed a physical perspective to clarify the way in which things agree and act in the whole universe in Letter 32. There, he provided his account of the

whole-parts relationship and his notion of agreement for the first time and posited that the same relation can be found in the attribute of thought. The mechanical approach of the *Physical Interludes* follows the argumentation provided in Letter 32 and stresses the fact that the human mind does not differ, ontologically, from other ideas and it is not an autonomous and self-sufficient entity. As “bodies are distinguished from one another by reason of motion and rest, speed and slowness, and not by reason of substance” (EIIp13s11), the human mind can be distinguished from other ideas only by means of its power to perceive and know things. Furthermore, the fact that bodies “must be determined to motion or rest by another body” (EIIp13s13) seems to highlight that the mind cannot self-determine its way of reasoning by means of free will. Despite the ontological homogeneity of Nature and the necessary connection of causes, there are specific and objective quantitative differences which enable to discern different finite things. The composite nature of certain bodies is pointed out by Spinoza’s definition of individuals. To more or less complex compositions of the body Spinoza attributes a higher or lower power of producing effects. In his view,

When a number of bodies, whether of the same or of different size, are so constrained by other bodies that they lie upon one another, or if they so move, whether with the same degree or different degrees of speed, that they communicate their motions to each other in a certain fixed manner, we shall say that those bodies are united with one another and that they all together compose one body or Individual, which is distinguished from the others by this union of bodies (EIIp13sdef).

It is the complex nature of individuals which enables them to produce effects on external things or to resist to external causes. The more a body is complex, the more it is powerful. What matters most is Spinoza’s use of the notion of part and whole in a physical context. In Lemma 7, he clarified that

the Individual so composed retains its nature, whether it, as a whole, moves or is at rest, or whether it moves in this or that

direction, so long as each part retains its motion, and communicates it, as before, to the others (EIIp13s17).

The terms *totius* and *pars* reveals two different ways of interacting among things which also characterize the mental universe and Spinoza's theory of knowledge. While Spinoza defined a whole in relation to some intrinsic aspect, his notion of part always refers to the existence of an outside to which each part belongs. Indeed, it does not make any sense to conceive a part outside the relation with other parts and its whole. This is evident by the description of the whole Nature as an "Individual, whose parts, i.e., all bodies, vary in infinite ways, without any change of the whole Individual" (EIIp13s17s). Indeed, this Individual is composed of infinite individuals and can be conceived without any reference to an outside, whereas parts without an outside would be called a whole.

The conceptual pair of whole and parts, as Sacksteder suggested (1977), is fundamental to clarify other conceptual pairs which characterize Spinoza's metaphysical, physical, epistemological and ethical terminology in the *Ethics*. For instance, the conceptual pairs of one/many, self/other and even the key epistemological distinction between adequate and inadequate ideas can fully be understood only in relation to the whole-parts relationship. According to Spinoza's definition, an adequate idea, "insofar as it is considered in itself, without relation to an object, has all the properties, or intrinsic denominations of a true idea" (EIIdef4). However, while proceeding towards the second part of the *Ethics*, it becomes clear that adequacy involves a kind of cognitive completeness which inadequate ideas lack, insofar as they only provide a partial understanding of things.

In the *Ethics* the theory of mind cannot concretely be understood by neglecting Spinoza's account of whole-parts relationship. The simple statement that the human mind is a mode of God's attribute of thought does not enable to infer that the mind is composited (EIIp15) and always connected to other external things too (EIIp16, p16c1 and p17). Furthermore, in EIIp19, the interconnection between the

metaphysical explanation of the nature of the mind, as the idea of the body, and its mereological dynamic constitutive dimension reveals the limits and roots of human power of thinking. Spinoza demonstrated that the human mind knows the human body and its existence only through its affections. In other words, we do not know the human body itself, since this knowledge requires that of many other ideas which are ordered and connected as the causes itself, but only its affections. By referring to EIIp11c, in which the human mind is defined as part of God's infinite intellect, it is worth noting that Spinoza stressed that such knowledge is in God insofar as It "is affected by a great many other ideas, and not insofar as [It] constitutes the nature of the human Mind" (EIIp19d). Instead, the human mind can know the body and its actual existence through its affections, since "the ideas of affections of the Body are in God insofar as he constitutes the nature of the human Mind" (EIIp19d). On the one hand, this statement clearly shows a discontinuity with the idea of a self-sufficient mind in the early writings, which only required to start from simple adequate ideas to lay the foundation for the true knowledge of things. On the other hand, the presence of conceptual pairs, such as those of part/whole, internal/external, adequate/inadequate, which characterizes Spinoza's argumentation throughout the *Ethics*, reveals a relational, rather than reflexive, root of human knowledge and the extrinsic origin of cognitive errors. With a relational dimension of knowledge, I intend to refer to the fact that the knowledge provided by imagination and that by means of reason is the result of a complex composition of ideas which can be more or less complete.

7.2. Cartesian Physiology and Spinoza's Mature Account of Imagination

Spinoza largely departed from Descartes' theory of mind and its metaphysical foundations. As Messeri rightly pointed out (1990, 178-82), Spinoza radically changed the relationship between the act of

thinking and its content, since the mind is viewed as a composition of ideas. This implies that neither an intentional act of thinking nor the simplicity of the *cogito* play a key role in Spinoza's theory of knowledge. Furthermore, while in the early writings Spinoza still maintained a kind of Cartesian dualism, the thesis of the body-mind identity definitely abandoned a dualistic perspective. However, if Spinoza departed from the metaphysical foundations of Descartes' theory of mind, the *Treatise on Man* might still have been a relevant source for his philosophy. In particular, Scribano (2015) has noticed how the memory, based on bodily affections and traces [*vestigia*], plays a key role in Spinoza's mature account of imagination. Indeed, Spinoza explained the role of traces in human cognitive processes after the *Physical Interludes*:

If the human Body has once been affected by two or more bodies at the same time, then when the Mind subsequently imagines one of them, it will immediately recollect the others also (EIIp18).

The physiological basis of Spinoza's account of memory and the cognitive mechanism of the imagination relies on the different kinds of body which constitutes the human body, such as hard, soft and fluid bodies. The explanation of the different features of these bodies largely resembles the Cartesian definition of them (Scribano 2015, 131). Furthermore, Julie Henry (2016) has noticed that the Spinoza's question about what a body can do, addressed in the *Physical Interludes*, recalls Descartes' aim in *Treatise of Man* which consists in showing what the body can perceive before its union with the mind or, in other words, what the mind perceives only in relation to the mechanical motion and constitution of its body.²⁴⁰

Spinoza's general physical explanation of the human body and features is not comparable with Descartes' detailed description of the

²⁴⁰ In the *Treatise on Man* Descartes aimed to explain the body as a machine which is not united with a rational soul yet. For instance, he stressed that: "but before going on to describe the rational soul, I should like you once again to give a little thought to everything I have said about this machine. Consider, in the first place, that I have supposed in it only organs and mechanism of such a type that you may well believe very similar ones to be present both in us and in many animals which lack reason as well" (AT XI 200).

physiological structure and mechanism of the body. Indeed, Spinoza limited himself to a few postulates in which is stated what follows: the human body is composed by many individuals of different natures (EIIp13pos1 and pos2); the bodies which are parts of the human body are affected by external bodies in many different ways and the human body undergoes a continuous change of parts maintaining the same fixed internal ratio of motion among them (pos 3 and 4); the external affections can impress certain traces on the soft parts (pos 5) and, finally, the body can move and dispose external bodies in many ways (pos6). The explanation of the human body concerns only few general physiological aspects which enable to clarify the cognitive mechanism of the human mind (Scribano 2015, 129).

It is likely that Spinoza followed Descartes' idea of an explanation of the mechanism and features of the bodies according to the universal laws of Nature. Spinoza's mechanical approach is well-acknowledged by scholars even though it is problematic in respect to his account of individual.²⁴¹ Leaving out the problems concerning a strict mechanical reading of Spinoza's notion of individual or concerning the introduction of certain vitalist elements in the *Ethics*, there are some differences between Descartes' view and the *Physical Interlude* which is worth highlighting.

As I have stresses in the fourth chapter, the anatomical evidence provided by Steno casted doubts on Descartes' account of the pineal gland and on the existence of animal spirits. Both these elements used by Descartes to explain the human body as a mechanism and its interaction with the mind are missing in Spinoza's *Ethics* as well as a specific reference to different organs. In EVpref Spinoza likely referred to Steno's arguments against Descartes's conception of the

²⁴¹ Scribano (2015) has argued that Spinoza opposed his mechanical view to a vitalist and anti-Cartesian conception of the body and of Nature provided by authors such as Pierre Petit and Marin Cureau. For a strict mechanical reading of Spinoza's physical interludes and the related concept of *conatus* see Messeri (1990) and D'amico (2018). However, Spinoza's idea that each body is animated to a certain extent, his account of the individual, which is characterized by the *certa quadam ratione*, and a teleological reading of the notion of *conatus* have often inspired the idea of some kind of vitalism in the *Ethics*.

pineal gland in order to reject the Cartesian dualism and the idea of a mind which can control the passions by virtue of an act of will. But there are other aspects which might help to stress the differences between Spinoza's general explanation of the features of the human body in the *Physical Interlude* and Descartes' physiological project.

First, Descartes aimed to contribute to a scientific explanation of the human body from the metaphysical premise of his mechanical philosophy, while Spinoza's final purpose in the *Ethics* was to clarify in what consists human beatitude and how human beings can pursue it. Even though Spinoza accepted a general mechanical view of Nature his overall goal was not to provide a contribution to the scientific debate, but to achieve an ethical goal assuming certain metaphysical and physical principles.²⁴²

Second, Spinoza's account of mind aims to overcome the problems of Descartes' dualism and, consequently, the necessity of finding a privileged place in which the body-mind interaction can take place. Since this body "is composed of a great many individuals of different natures, each of which is highly composite" (EIIp13sp1), "the idea that constitutes the formal being [*esse*] of the human Mind is not simple, but composed of a great many ideas" (EIIp15). This means that the human mind, just as the human body, is characterized by a certain fixed manner according to which its constituting parts communicate their motion to each other. If the idea of a composite nature of the body did not exclude the existence of a privileged organ, the body-mind identity and the idea that an individual is not defined by its constituting parts but by a certain ratio clearly undermined the necessity to recognize a privileged place. Indeed, an individual does not depend on its specific parts, which can change, but on a certain way of communicating motion among its parts. Consequently, Spinoza is not compelled to point at a privileged place of the body in which the communication with its corresponding mind takes place.

²⁴² The different purposes of the two authors' works are stressed by Henry (2016) who argued for a continuity between Descartes' *Treatise on Man* and Spinoza's *Physical Interludes*.

Third, a detailed explanation of the different parts of the human body is not necessary to establish the general features of this body which can easily be conceived through a general mechanical explanation of the nature and of the relationship among different parts. This metaphysical approach to the explanation of the human body might be also found in a certain interpretation of Descartes' *Treatise on Man*. For instance, La Forge stressed that Descartes' aim was not to explain the concrete and visible human body from the perspective of the anatomists, but to provide an explanation of the invisible and fundamental aspects, which cannot be experienced, but are fundamental to direct scientific observations (Andrault 2016, 187). From this point of view, Spinoza's explanation of the body could only provide vague definitions of different properties of the body. Instead of assuming the existence of mysterious entities, such as the animal spirits, which cannot be empirically proved, Spinoza limited himself to provide a few mechanical laws of motion, axioms and definitions which might direct a more careful anatomical investigation.²⁴³ Now, it is only possible to speculate that Spinoza's general explanation of the human body took into account Steno's criticism of Descartes' physiology. However, Spinoza avoided to subject of such a criticism, insofar as he provided a general explanation of the human body which can fit in with different empirical evidence. Since Spinoza was familiar with Steno's anatomical investigation (see Totaro 2001), it is likely, even though still speculative, that he intentionally avoided to endorse physiological assumptions which were problematic in the light of novel empirical evidence.²⁴⁴

Despite the differences, some passages of Descartes' *Treatise on Man* might have inspired Spinoza in developing his theory of mind and knowledge the way he did. First of all, I have already pointed out,

²⁴³ The existence of entities such animal spirits was an aspect of Descartes' physiology of human body criticized by Steno, who did not find any empirical evidence to assume the existence of such subtle and invisible bodies (see Andrault 2016).

²⁴⁴ It is worth noticing that Spinoza explicitly referred to the impression in the brain in TIE, § 81 to explain the nature of memory.

by analyzing Letter 17 written in 1664, that Spinoza attributed to the bodily traces [*vestigia*] a fundamental role for human cognitive mechanism of the imagination. But what is clearly highlighted in the *Ethics*, is the idea that these traces do not concern only certain parts of the human body. Instead, traces can be found in the whole body. By abandoning Descartes' theory of the pineal gland Spinoza follows the idea – already present in *Treatise on Man* – that traces can be left on the whole body and, consequently, that the whole body plays a fundamental role to understand mnemonical processes. The fifth postulate at the end of the *Physical Interludes* stresses that:

When a fluid part of the human Body is determined by an external body so that it frequently thrusts against a soft part [of the Body], it changes its surface and, as it were, impresses on [the soft part] certain traces of the external body striking against [the fluid part] (EIIp13sp5).

Thanks to the different features of the bodies which compose the human body the mind “will still be able to regard” bodies which have affected the human body once as if they were present (EIIp17c). Hence, as Scribano argued (2015), Spinoza's debt with Descartes' *Treatise on Man* can be suggested in relation to his clarification of the specific mechanism of memory and, consequently, of the imagination in the *Ethics*. Since memory is not a specific faculty of the mind, but it is often identified with imagination, Descartes' physiology offered to Spinoza a relevant philosophical example to clarify the causes of human sensations and the basic cognitive mechanism of the mind.

Moreover, in the *Treatise on Man* Descartes provided a careful explanation of the things that the human body can do without a soul. For instance, there are things which we can conceive as spontaneous and autonomous actions of the bodies such as breathing or which characterize human immediate reactions to dangers. Here, the well-known explanation of a beast-machine, which can act without the cooperation of a rational soul, is particularly interesting in the perspective of Spinoza's thesis of the body-mind identity. It is worth

noticing that the explanation of spontaneous and unvoluntary actions of the body is discussed in the *Ethics* in order to reject the assumption that the body needs the mind to be moved. In the *scholium* of EIIIp2, Spinoza pointed out that the body can do many things without requiring any act of the mind. But by rejecting the idea of a causal interaction between the body and mind, Spinoza also stressed that the actions attributed to the human mind are not determined by a free act of will, but always by certain causes. This argument comes after the explanation of the spontaneous and unvoluntary actions which one can notice in the human body without any help of the mind. Even though Spinoza's rejection of free will is rooted in his metaphysics, it is interesting to note that the experience of spontaneous and unvoluntary actions of the body is also used to argue that the human mind necessarily connects and orders the ideas of bodily affections the way it does without any act of will.²⁴⁵

In the fifth chapter, I have shown that in the early writings there are only vague references to bodily components and physiological aspects. Spinoza even affirmed that there was no necessity to clarify the nature of the body and its interaction with the mind, since the mind is able to achieve the Supreme God by its own. In the *Ethics*, Spinoza turned upside down this perspective by affirming that it is necessary to investigate what a body can do and perceive to understand what the mind itself perceive. Now, by linking this novel perspective to the physiological explanation of the human body as a machine without a rational soul provided in the *Treatise on Man* is possible to make sense of this change. What differs, is that the idea of a strict physiological explanation of human cognitive capacities in the *Treatise on Man* is presented by Descartes as a borderline case or, to certain extent, as a kind of thought experiment. Indeed, human beings are a composed substance to which both a soul and a body belong.

²⁴⁵ "But when we dream that we speak, we believe that we speak from a free decision of the Mind-and yet we do not speak, or, if we do, it is from a spontaneous motion of the Body. And we dream that we conceal certain things from men, and this by the same decision of the Mind by which, while we wake, we are silent about the things we know. We dream, finally, that, from a decision of the Mind, we do certain things we do not dare to do while we wake" (EIIp2s).

But assuming the perspective of the body before its union with the soul Descartes aimed to clarify which cognitive mechanisms are originated by the body alone. Instead, Descartes' borderline case turns out to be the standard case in the *Ethics*. Indeed, the perfection and capacity of the human mind correspond to the perfection and capacity of its body. Since there is no rational soul which has to be added to the body, Spinoza's explanation of the power of the mind and his theory of knowledge cannot completely transcend the physiological dimension of the constitution of the body.²⁴⁶

The discontinuities between the early writings and the *Ethics* become even more evident when one addresses Spinoza's theory of knowledge and, in particular, his account of imagination. After the *Physical Interludes*, Spinoza addressed several issues, such as the mind's perceptions of external bodies, the way these perceptions are connected to each other and the epistemic content of these ideas. These propositions immediately bring to light the variegated applications of the term 'imagination' in the *Ethics*. As Ursula Renz has stressed, "it is the basis of processes including sensation, perception, memory, fantasy, hallucination, and the use of signs, as well as all those passions that are discussed in part three of the *Ethics*" (Renz 2019, 9). While the term 'imagination' was mainly used in opposition to that of the intellect in the TIE and is missing from the KV, it plays a pivotal role in the *Ethics* and is used in relation to many different cognitive processes. Consequently, scholars have talked about Spinoza's discovery of the 'science of imagination' to stress the facts that imagination corresponds to the power of the mind and that imaginative processes follow necessarily from certain causes (See Mignini 1981, Bostrenghi 1996, Gatens and Loyd 1999).

²⁴⁶ I am aware that this statement can appear puzzling in relation to Spinoza's statement in EVp23 that the mind survives to some extent after the destruction of the body. Furthermore, Spinoza's second and third accounts of knowledge were often interpreted by insisting on their distance from the bodily roots of imagination. I consider that Cristofolini (2005) rightly stressed that Spinoza's intuitive science and theory of the eternity of the mind in EV cannot be understood as a radical departure from the nature of the body. Furthermore, Spinoza still affirmed in EV that the more a body is able to do things, the more the mind is eternal (EVp39).

In the *Ethics* much attention is paid to the bodily components of the imagination, insofar as there is no imagination without bodily affections, and the mechanism of imagination is explained by Spinoza through the reference to physiological processes.

The concept of imagination is not immediately linked to errors, but it has a neutral, and sometimes explicitly positive, connotation. There is no proper definition of imagination itself to which one might refer in order to highlight all cognitive processes which are rooted in the first kind of knowledge. However, it is clarified throughout the implications of the body-mind identity and the explanation of the features of the human body. What the human mind knows by virtue of its identity with body, are the affections caused by external bodies. The ideas of this affections “indicate the condition of our own body more than the nature of the eternal bodies” (EIIp16c2). It is important to note that Spinoza did not refer to the nature of our own body but only to its actual condition (see EIIp19). In this sense, the genesis of imagination follows from a clarification of the basic cognitive aspects of the human mind which involve the idea of external things and memory:

If the human Body is affected with a mode that involves the nature of an external body, the human Mind will regard the same external body as actually existing, or as present to it, until the Body is affected by an affect that excludes the existence or presence of that body (EIIp17).

Thanks to the traces impressed by the external body on the soft parts of the human body, the human mind can still regard the bodies, which had once affected it, as present even though they are no more present (EIIp17c). Spinoza outlined the nature of human sensation and the roots of memory, as well as their origins.²⁴⁷ The mechanism, which leads the mind to regard nonexistent bodies as present to it, is explained by referring to the reiterations of a certain motion of

²⁴⁷ In EIIp18s Spinoza concluded: “From this we clearly understand what Memory is. For it is nothing other than a certain connection of ideas involving the nature of things which are outside the human Body -a connection that is in the mind according to the order and connection of the affections of the human body.”

different parts of the body. For Spinoza “the mind will again regard the external body as present” every time that “the fluid parts of the human body encounter the same surfaces by their spontaneous motion” (EIIp17c1d). This is the same mechanism which characterizes human imagination and the fact that we can imagine things as present even though they do not exist. The concept of image is defined by Spinoza as “the affections of the human Body whose ideas present external bodies as present to us [...] even if they do not reproduce the [NS: external] figures of things” (EIIp17s). When the human mind regards the external bodies in this way, Spinoza added, we should say that the mind imagines. This echoes the Cartesian view that the idea or images of the mind do not need to resemble the figures of the external bodies in order to be considered idea of external things. At this point Spinoza clarified the relationship between human imagination and errors:

And here, in order to begin to indicate what error is, I should like you to note that the imaginations of the Mind, considered in themselves contain no error, or that the Mind does not err from the fact that it imagines, but only insofar as it is considered to lack an idea that excludes the existence of those things that it imagines to be present to it. For if the Mind, while it imagined nonexistent things as present to it, at the same time knew that those things did not exist, it would, of course, attribute this power of imagining to a virtue of its nature, not to a vice -especially if this faculty of imagining depended only on its own nature, i.e. (by ID7), if the Mind's faculty of imagining were free (EIIp17s).

This passage clearly indicates that the imagination itself should be considered as a part of the power of the mind, insofar as it is not intrinsically a cause of error. However, in EIIp41 Spinoza demonstrates that imagination is the only cause of inadequate ideas. How can these two statements be consistent with each other? Images do not represent external things as they really are but only in relation to the affections of our body and its constitution. When Spinoza stressed that errors are due to the lack of an idea which excludes the

absence of nonexistent bodies, he pointed out the partiality or incompleteness of the ideas provided by the imagination. But it appears that by adding the missing ideas to our imagination, as in the case of the thought experiment of the worm in the blood provided in Letter 32, we can imagine without risks and conceive a positive and virtuous aspect of imagination.

The previous passage, as Bostrenghi (see 1996, 77-78) has rightly noticed, is highly puzzling with respect to two issues: first, Spinoza refers to the imagination as a faculty even though this is largely inconsistent with the explanation of the imagination as a kind of knowledge. Second, the reference to the definition of freedom in EIdef7 is hardly understandable in the context of the *scholium* of EIIp17. In the *Ethics*, there is no distinction between the act of thinking and its content and the connection and order of ideas necessarily follows in the human mind. In EIdef7, Spinoza affirmed “that thing is called free which exists from the necessity of its nature alone, and is determined to act by itself alone”. It appears difficult to apply such definition to the imagination as a free faculty of the mind which can self-determine itself. How is it possible to conceive a free imagination without the possibility of a free act of the mind, which has the absolute power to determine itself?

Spinoza used the formulation “*mentis imaginandi facultas libera*” only in this *scholium*. In general, in the *scholia* Spinoza did not follow the strict geometrical order of the demonstrations, but often made use of the terminology, as in EI15s, of his opponents. Thus, in the context of the EIIp17s Spinoza might have made a use of a Cartesian terminology in order to highlight a specific aspect of the nature of human imagination in relation to common views. On the one hand, Spinoza stressed the fact that imagination is not intrinsically fallacious even though it is certainly the only cause of error. On the other hand, the idea of a free imagination reveals that errors are due to a lack of completeness but, at the same time, images themselves are an expression of the power of the mind to some extent. The distinction among fictitious, false, doubtful and true ideas is

missing in the *Ethics* and is replaced by the simple distinction between inadequate and adequate ideas which plays an important role in the light of Spinoza's mereological understanding of the universe. An adequate idea is defined by Spinoza as "an idea which, insofar as it is considered in itself, without relation to an object, has all the properties, or intrinsic denominations of a true idea" (EIIdef4). This definition become less puzzling by understanding that the distinction between inadequate and adequate ideas does not concern what ideas represent, but to which extent each idea represents the reality – which can be the nature of a thing or certain common properties. Indeed, inadequate ideas still are self-sufficient from a logical point of view, even though they fail to represent things as they really are. They consist in a lack of completeness which does not enable to understand the causes of certain representations of reality.²⁴⁸ Since the falsity consists in "the privation of knowledge" implicit in inadequate ideas (EIIp35), the ideas of the imagination are confused and mutilated because of the lack of complete information. Indeed, the concrete example of the representation of the distance of the Sun highlights the lack of information provided by the imagination:

When we look at the sun, we imagine it as about 200 feet away from us, an error that does not consist simply in this imagining, but in the fact that while we imagine it in this way, we are ignorant of its true distance and of the cause of this imagining. For even if we later come to know that it is more than 600 diameters of the earth away from us, we nevertheless imagine it as near. For we imagine the sun so near not because we do not know its true distance, but because an affection of our body involves the essence of the sun insofar as our body is affected by the sun (EIIp35s).

According to this example the falsity is not in the imagination itself, which necessarily follows from certain causes, but in the lack

²⁴⁸ I agree with Messeri's explanation of Spinoza's distinction between inadequate and adequate ideas provided in the fourth chapter of Messeri 1990. In Messeri's view, Spinoza's distinction between adequate and inadequate ideas aimed to show the different logical completeness and intrinsic power of each idea for representing the reality as it actually is.

of the ideas of the true distance of the Sun and the causes of the Sun appearing closer than it really is. In other words, the ideas provided by the imagination do not represent the things as they really are, but only as they appear to human beings according to certain external affections and the condition of their own bodies. But the falsity of this ideas does not coincide with the falsity of the corresponding idea, but it depends on the fact that we took it as a true representation of the reality. Consequently, human beings, who have the idea of the true distance of the Sun, still represent the same image of the Sun without falling into error. Adequate ideas do not correct or change these representations. Rather, they add the information necessary to achieve a complete knowledge of reality and of causes. In brief, the imagination does not necessarily lead human beings to err, since it is a constitutive and fundamental part of the power of the human mind. The ideas of imagination represent certain aspects of the reality which are maintained in the adequate ideas. This, in turn, leads to the question concerning the relationship between the imagination and other kinds of knowledge.

7.3. The Common Order of Nature and Common Notions

There are many relevant differences between the theory of knowledge in the *Ethics* and that in the TIE. Firstly, Spinoza provides three different kinds of knowledge in the *Ethics*, i.e., the imagination, reason and intuitive science, instead of four kinds of perception. Secondly, a development in Spinoza's theory of knowledge is evident, since reason, and not only intuitive science, provide adequate knowledge. While the former offers an adequate knowledge of the common notions and properties of the things, the latter proceeds from adequate knowledge of the formal essence of God's attributes to the adequate knowledge of the essences of things (EIIp40s2). In short, the adequate knowledge provided by reason concerns common properties shared by the things, such as extension for the bodies, while human beings know singular things by means of intuitive science. In the TIE

only the fourth kind of perception, not the third which corresponds to reason, provides adequate knowledge.

These major changes from Spinoza's TIE to the *Ethics* are relevant, but do not imply that Spinoza abandoned all elements of his early theory of knowledge. For instance, when Spinoza addressed the origin of universal notions in the *Ethics*, he discussed the first kind of knowledge, i.e., imagination, in relation to two different levels of knowledge (Cristofolini 2005, 113-14):

From what has been said above, it is clear that we perceive many things and form universal notions: I. from singular things which have been represented to us through the senses in a way that is mutilated, confused, and without order for the intellect (see P29C); for that reason I have been accustomed to call such perceptions knowledge from random experience; II. from signs, e.g., from the fact that, having heard or read certain words, we recollect things, and form certain ideas of them, which are like them, and through which we imagine the things (P18S). These two ways of regarding things I shall henceforth call knowledge of the first kind, opinion or imagination (EIIp40s2)

As far as universal notions and different kinds of errors are concerned, Spinoza distinguished between knowledge from random experience, which provides an immediate knowledge of things through the senses – a confused knowledge ordered according to the bodily affections – and from conventional signs – mediate by means of language, habits and social interactions. In the previous passage, these two kinds of perception characterize the ways in which human beings form universal notions by means of imagination. These notions are always inadequate, insofar as they depend on bodily affections, arise from the human limited power of imagining and the human inclination to establish a connection among different things according to their previous affections. Universal notions depend on the fact that the mind has confused and unclear ideas which represent the order and connection of human affections, instead of the order of things in the intellect (EIIp29c). As we have seen above, human

affections provide more information on the actual disposition of the human body than on its nature (EIIp19d) and on the nature of external things. Consequently, every idea of an affection does provide neither an adequate knowledge of external bodies (EIIp25) nor of the human body (EIIp27). Moreover, human beings have a limited power of imagining, since the body is able to have only a limited number of distinct and clear images at the same time. When the number of the images exceeds the capacity of the body, they are indistinctly mixed and the mind, too, does not have a distinct and clear idea of things, but imagines different things under a same arbitrary notion, such as being, thing, etc. (EIIp40s1). Hence, universal notions provided by the imagination do not offer any ground for reasoning and for adequately knowing singular things, since they do not grasp the things themselves and differ from an individual to another:

But it should be noted that these notions are not formed by all [NS: men] in the same way, but vary from one to another, in accordance with what the body has more often been affected by, and what the Mind imagines or recollects more easily. For example, those who have more often regarded men's stature with wonder will understand by the word man an animal of erect stature. But those who have been accustomed to consider something else, will form another common image of men-e.g., that man is an animal capable of laughter, or a featherless biped, or a rational animal (E2p40s1).

The two kinds of perceptions that characterize Spinoza's account of imagination in the *Ethics* correspond to the first two presented in the TIE. Therefore, the main issue concerns the role which they can play in Spinoza's mature account of imagination and whether a parallel with the aforementioned Baconian elements is still plausible. These two kinds of perceptions are introduced in order to explain the cause and nature of universal notions. Since it is not possible to conceive the nature of things through these notions adequately, these two kinds of perception provide ideas that often lead to err. On the one hand, random experiences offer a passive and confused

perception of external things, on the other hand, words and habits provide an association of ideas according to the order and connection of different affections instead of the fixed and eternal connection of causes in Nature. The distinction between two different ways of ordering and connecting ideas is explicitly posited by Spinoza in the *scholium* of EIIp29 for the first time:

I say expressly that the Mind has, not an adequate, but only a confused [NS: and mutilated] knowledge, of itself, of its own Body, and of external bodies, so long as it perceives things from the common order of nature [*ex communi naturae ordine*], i.e., so long as it is determined externally, from fortuitous encounters with things, to regard this or that, and not so long as it is determined internally, from the fact that it regards a number of things at once, to understand their agreements [*convenientias*], differences, and oppositions. For so often as it is disposed internally, in this or another way, then it regards things clearly and distinctly, as I shall show below (EIIp29s).

The distinction between a perception of things according to the common order of nature, i.e. the order and connection of different external affections of the human body, and the adequate knowledge of certain relationship among things, is based on the conceptual pair internal/external which, as I have previously stressed, is connected with another conceptual pair, i.e. that of whole/part. Furthermore, Spinoza underlined that human beings can have an adequate knowledge of a certain relationship among things the things when their minds, as Spinoza affirmed vaguely, are internally disposed or self-determined mind. It is important to notice that the distinction between internal and external determinations does not correspond to that between self-causation and external causation which characterizes the distinction between substance and modes. As Sangiacomo (2013) has stressed, the notion of determination implies the existence of many singular things which causally interact with each other. The distinction between internal and external determination denotes the fact that a singular thing can produce

certain effects according to its essence and through the interaction with other things. When these effects can be understood adequately in relation to their own nature alone, the mind is self-determined. If an adequate understanding of these effects requires the knowledge of other external things, the mind is passive.²⁴⁹

The perceptions from *experientia vaga* and conventional signs are maintained in the *Ethics* even though these are introduced in a more complex and broader account of imagination. As we have seen, imagination cannot be reduced to these two kinds of perception whose meaning does not involve all applications of the term *imaginatio* in the *Ethics*. Here, Spinoza does not uphold the strong opposition between the imagination and intellect anymore. The ideas that we have from the first kind of knowledge cannot provide any adequate knowledge alone, but imagination does not lead to err when adequate ideas are added. In fact, when Spinoza criticizes “the philosophers, who have wished to explain natural things by mere images of things” (EIIp40s), he intends to highlight that some philosophers neglected an investigation of the true causes of human representations of the things.

At the beginning of the fourth chapter of this thesis, I have addressed Spinoza’s criticism of Bacon’s theory of errors and pointed out that his target was the idea of an intrinsic imperfection of the human mind. Now, we can see that even human imagination cannot be conceived as a kind of imperfection of the mind. Spinoza, as Bacon did, accentuates that habits, sense perception and language can lead human beings to err and form a wrong understanding of Nature and things. But this is due to a lack of knowledge of the true connection of causes which determines the mind to represent the reality as it does. Here, the distinction between four different kinds of

²⁴⁹ See also the definitions of adequate and inadequate cause in EIII. In particular, Spinoza affirmed “that we act when something happens, in us or outside us, of which we are the adequate cause, i.e. (by DI), when something in us or outside us follows from our nature, which can be clearly and distinctly understood through it alone. On the other hand, I say that we are acted on when something happens in us, or something follows from our nature, of which we are only a partial cause” (EIIIdef3).

perceptions is not provided by Spinoza to explain the cognitive mechanism of the human mind but is used to distinguish between different epistemic contents independent of their adequacy. Indeed, Spinoza did not limit himself to distinguish the perceptions which provide adequate knowledge from the other kinds of perceptions. Rather, he focused on the specific ways through which the mind has a certain knowledge of things.

Now, since the reference to the first two kinds of perceptions seem to embrace all of our sensory experience, Richard Manning (2016) argued that is doubtful to establish a relation between Spinoza's and Bacon's theory of knowledge. In general, according to Manning, it is hard to find in Spinoza's works a kind of knowledge that makes use of experience and sense perception in an experimental way – or at least that enables us to think that sense perception might help know some features of things. Spinoza does not explain in the TIE what an experience determined by the intellect corresponds to, and, for Manning, the *Ethics* presents the same problem. While the intuitive science does not seem to take into consideration the senses, the knowledge from common notions provides only a knowledge of the universal properties of the things, such as a knowledge of the laws of motion and rest. For Manning, “the common notions seem limited to ideas of extremely general features of physical objects, far too general to be a source of any of the kinds of particular observational knowledge required for experimental practice” (Manning 2016). Consequently, it is difficult to see an influence of Bacon's experimentalism on Spinoza's theory of knowledge in the *Ethics*.

In my opinion, Manning's argument is based on two problematic assumptions. First, his argument relies on a sharp distinction between Baconian experimentalism and Spinoza's rationalism. But I have already argued against this dichotomy which leads to neglect important aspects of both authors. For instance, Bacon's scientific method in the *Novum Organum* implies certain deductive aspects

which could also fit in with Spinoza's idea of science.²⁵⁰ Second, Manning argued that an influence of Bacon's notion of random experience on Spinoza is highly doubtful in the light of "Spinoza's general denigration of sense experience as generating only inadequate ideas of things" (Manning 2016, 6.1). However, this general denigration of sense experience appears to me less evident than Manning suggests. He identifies experience with a kind of experimentalism which – as I gladly admit – is neglected in the *Ethics*, but this does not mean that Spinoza neglected the importance of experience at all.²⁵¹

If a pure intellectualistic account of knowledge characterizes the TIE, it is more difficult to apply the same view to the *Ethics*. Indeed, both the mind's perception of things according to the common order of nature, and the adequate knowledge which concerns the objective agreements and oppositions among different things involve experience as a *conditio sine qua non*. The difference consists in how the mind's ideas of affections are connected and ordered. While human beings can know things only inadequately as long as they perceive things by means of random experience and conventional signs, common notions concern certain connection among things of which the mind has an adequate knowledge. Indeed, common notions characterize the knowledge that the mind has by means of reason. There are two different kinds of common notions in the *Ethics*: 1) the universal one and 2) the proper one. The former denotes the adequate knowledge that human beings can have of "those things which are common to all, and which are equally in the part and in the whole" (EII38). The latter correspond to the adequate knowledge that human beings can have of something that is common and peculiar to the

²⁵⁰ See for instance Selcer (2014), who suggested that Spinoza's intuitive science might be inspired by Bacon's idea of *scientia operativa* which relates to the Baconian identification of knowledge with productive causal power.

²⁵¹ Pierre-François Moreau has rightly argued that Spinoza did not provide the same account of experience required by scientific experimentation. However, he did attribute a key role to experience which cannot be reduced to random experience, but it has many meanings related to different dimensions of Spinoza's philosophy (see Moreau 1994, 296-303)

human body and “certain external bodies by which the human Body is usually affected, and is equally in the part and in the whole of each of them” (EIIp39). On the one hand, there are common notions which concerns universal correlations of nature, such as the universal laws of Nature or the common extended nature of bodies. On the other hand, the proper common notions do not imply an absolute universality, but they concern certain aspects which a group of individuals has in common, such as the specific laws of imagination or of human nature. That proper common notions correspond to a knowledge of features which are common only to a certain kind of bodies is demonstrated by Spinoza through the following example:

Let A be that which is common to, and peculiar to, the human Body and certain external bodies, which is equally in the human Body and in the same external bodies, and finally, which is equally in the part of each external body and in the whole. There will be an adequate idea of A in God (by P7C), both insofar as he has the idea of the human Body, and insofar as he has ideas of the posited external bodies. Let it be posited now that the human Body is affected by an external body through what it has in common with it, i.e. , by A; the idea of this affection will involve property A (by P16), and so (by P7C) the idea of this affection, insofar as it involves property A, will be adequate in God insofar as he is affected with the idea of the human Body, i.e. (by P 13), insofar as he constitutes the nature of the human Mind. And so (by P1 IC), this idea is also adequate in the human Mind, q.e.d. (EIIp39d).

Spinoza recognized that human beings might have adequate knowledge of all the things which the human body has in common with other bodies. However, this knowledge is not innate in the sense that the mind can know it without any correlation to external things. Instead, the knowledge of these properties requires affections, i.e. the interaction of the human body with external things, even though these are not inferred from inadequate ideas and random experiences. Consequently, the second kind of knowledge does not exclude sense perception. Adequate ideas of reason are not ordered and connected

according to the common order of the things [*ex comuni naturae ordine res*], i.e., the order of the body's affection, but they provide a knowledge of certain fixed and eternal aspects which characterize the causal interaction among things.

In brief, in his explanation of common notions Spinoza explicitly refers to the interaction between the human body and other bodies, as well as to the affections caused by external things. This do not fit in with Manning's idea that Spinoza denigrated sense experience as generating only inadequate ideas. Indeed, if common notions do not require experiences, why would Spinoza refer to the affections of the human body which involve both the nature of the human body and that of external things? By accepting Manning's interpretation, one faces the problem of justifying how Spinoza's common notions can be explained without a kind of empirical correlation between the human body and other external bodies. This problem has been recently addressed by Sangiacomo (2019) who argued that "both reason and imagination express the different degrees of agreement and disagreement in nature between the human body and the external bodies that affect it" (137). In other words, the distinction between imagination and reason - but also that between the common order of nature and that which characterizes the mind as internal disposed - does not imply a gap between experience and adequate knowledge. Rather, this distinction is deeply related to the different degrees of agreement and disagreement and to Spinoza's view of the whole-parts relationship.

Spinoza's notions of agreement and disagreement in Nature are not clearly defined in the *Ethics*. The first attempt to explain nature in such a way is provided by Spinoza in the Letter 32 written in 1665 and is implied in the *Physical Interludes*.²⁵² These notions are deeply connected to Spinoza's mereological turn which led him to define the notions of part and whole. The relationship between the common order of nature and the fixed and eternal order of Nature can be

²⁵² See chapter 3.4.

clarified in the light of the different degrees of agreement and their epistemological implications. Indeed, the common order of nature follows from the fact that the mind considers things according to external determinations which cannot be understood only by means of the idea of the human mind. However, each time the human body produces certain effects through the interaction with other things which involves only the nature of certain aspects of the human body, the mind can have an adequate knowledge of this causal interaction. Since the inadequate ideas depend on a lack of knowledge, one might read the relationship between the ideas of imagination and reason as corresponding to different degrees of agreement on which depend our conceiving the mind as a part or as a whole. When there is agreement between the human body and external things, the mind is internally disposed – or can be conceived as a whole – and has a complete knowledge of the causes which determine certain effects. The lack of knowledge of the causes involved in the ideas of the imagination correspond to the fact that there is disagreement between the human body and external bodies. However, both agreement and disagreement come, as we have seen in Letter 32, in different degrees. Consequently, inadequate ideas are not false to same extent, but the degree of the lack of knowledge can vary among different inadequate ideas. In a similar way, adequate ideas provided by reason do not need to involve a complete idea of the order of Nature and its universal laws. Instead, it is enough that an adequate idea contains enough information to have a complete understanding of the aspects which concur to produce a certain effect.

This interpretation has a twofold advantage: on the one hand, it clarifies that imagination and reason in the *Ethics* are not opposed to each other, but inadequate and adequate ideas have the similar correlation which characterizes the whole/part conceptual pair. On the other hand, it enables to address the question concerning a virtuous function of imagination to foster human reason. Now, the adequate knowledge provided by reason is neither a knowing all or nothing nor a kind of universal-particular relationship but comes in degrees. The

adequate idea of reason cannot follow from the inadequate ideas provided by imagination. Furthermore, Spinoza's theory of mind excludes the possibility of an intentional action of the mind so it is impossible to figure out how that imagination can be used as a kind of so-to-say 'free faculty'. In other words, the human mind's action consists in its epistemic content, i.e. its inadequate and adequate ideas, which necessarily determine its way of regarding things. However, I retain that, since both imagination and reason come in different degrees, and inadequate and adequate ideas coexist with each other in the human mind, a virtuous function of the imagination to foster human reasoning is rooted in the idea that the mind, by imagining, expresses a certain power of thinking. It is important to notice that different images do not express the same power of thinking. Consequently, it is not indifferent which representations of reality and which adequate ideas human beings have. This is particularly evident in Spinoza's theory of affects, since a proper cognitive therapy does not only imply a distinction between the affects determined by reason and those determined by the imagination, but also to discern among different passions. For instance, even though human beings have a joy which follows from inadequate ideas this latter still expresses a higher degree of perfection than a sorrow which is always caused by inadequate knowledge. In a similar way, I think, the image of a worm in the blood turns out to be useful in order to contrast an anthropomorphic conception of God and Nature. Consequently, imagination fosters human reason to limit inadequate representations of Nature. These inadequate representations of Nature express a lowest power of thinking and, in a certain sense, impede human beings to progress towards a better knowledge of Nature and of certain common properties of things.

Conclusion

The chronological investigation has shown that Spinoza provided a self-sufficient account of the mind in the early writings and largely neglected the bodily components of human imagination, while, after the publication of Descartes' *Treatise on Man* in 1662, the explanation of the cognitive processes which characterize the imagination are intimately connected to his account of the physiological constitution of the body. In particular, in the *Ethics*, several passages remind of Descartes's physiology as far as the explanation of the relationship between bodily traces and memory (as well as the idea that the more the body is capable to act, the more the mind perceives) is concerned. Furthermore, besides the sharp opposition between the imagination and the intellect presented in the early writings Spinoza started reconceptualising the imagination as a power of the mind and also to ascribe a fundamental practical function to it.

Moreover, I have paid much attention to Bacon's possible influence on Spinoza's theory of knowledge and errors. I argued that Bacon's works too might have determined the way Spinoza developed his theory of perceptions and his historical method to distinguish different kinds of ideas. There are many aspects of Bacon's philosophy Spinoza is likely to have reinterpreted in his works, such as the notion of *experientia vaga* in opposition to experience determined by means of the intellect. Insofar as crucial aspects of Bacon's philosophy are situated in a different conceptual framework compared to that of Spinoza's, it might seem problematic to establish their influence on the development of Spinoza's thought and terminology. However, it is clear that there are certain common speculative and theoretical affinities between the two authors despite

the differences. What's more, the comparison between Spinoza and Bacon enriches our understanding of Spinoza's assessment of experience and an historical method for directing human beings' *ratio vivendi*.

The overall goal of this second part was to show that, according to Spinoza, the imagination can in fact be beneficial to aid reason and adequate knowledge. The diachronic approach of my study of Spinoza's works has shown that it is problematic to address this issue as if Spinoza had a coherent and linear theory of mind sticking to the same conceptual framework. Indeed, the idea of the mind as self-sufficient to achieve the Supreme Good and Cartesian dualism adopted in the early writings differs much from the conceptual framework of the mature works. In his mature works, the interaction of human beings with external things, human cooperation and appetites play a key role. This, in turn, shows the extent to which Spinoza departed from his early intellectualist view. Consequently, I have focused on Spinoza's explanations of fictitious ideas, his thought experiments and also the fundamental practical role played by the imagination in order to show that the opposition between imagination and reason presented in the early writings became less sharp in the conceptual framework provided by the mature works. The idea of a virtuous and beneficial function of the imagination is most palpable in the thought experiment of the worm in the blood provided in Letter 32. Here, Spinoza used an imaginary scenario in order to abandon a certain inadequate conception of the universe in favor of a more rational one. What is more striking, Spinoza introduces for the first time a mereological account of the universe and his notion of agreement and disagreement.

In the *Ethics* there is an explicit, but problematic, acknowledgement of the virtuous function of the imagination. Spinoza's mature account of the mind as the idea of an actually existing body is also intimately connected to his idea that the human mind is part of God's intellect – which remained rather vague and abstract in the early writings. I therefore suggested that Spinoza offers

two interconnected perspectives on different aspects of the problem of human nature and its power. On the one hand, a metaphysical explanation of the nature of the mind as a mode of God which consists in the idea of an actual existing body. On the other hand, Spinoza introduced the key conceptual pair of whole-part in the *Physical Interludes* – which recalls that of Letter 32 – which is not only fundamental to understand the order and cosmological structure of the whole of Nature, but also for Spinoza’s explanation of many cognitive processes and, in turn, the conceptual pair inadequate/adequate.

In a nutshell, the distinction between different orders of ideas or between imagination and reason are intimately connected to Spinoza’s mereological conception of the whole of Nature, and the idea that there are different degrees of agreement and disagreement among things. This interpretation enables us to see how the imagination, despite the fact that cannot it provide adequate ideas, might benefit human reason in limiting inadequate representations of Nature which express a lowest power of thinking and impede human beings to progress towards a more adequate knowledge of the whole Nature. Since inadequate ideas correspond to different degrees of disagreement (as adequate ideas are the result of an agreement between the human body and external bodies), the virtuous aspect of the imagination consists in the fact that it expresses a certain power of thinking which can coexist with human power of reasoning.

Spinoza’s theory of mind and knowledge cannot be easily understood by means of a synchronic reading of his *corpus*, since the early writings offer a conceptual framework which largely differs from the that of the *Ethics*. The idea of different orders of ideas based on a sharp opposition between imagination and reason do not completely correspond to that provided by the mature works. In the latter, the mind is conceived not as self-sufficient to control the passions and the imagination is not conceived as a merely a passive aspect of the mind. Instead, the imagination is positively (re-)defined as a power of the mind and most cognitive processes are deeply

connected with it. Since all these processes are rooted in the constitution of the body and its affections, Spinoza's attention to physiological aspects is particularly relevant in order to clarify his theory of mind. Furthermore, the conceptual pair of whole/parts will offer a key perspective in the Ethics to conceive the nature and power of the human mind. Indeed, the inadequate ideas provided by means of imagination are not false to the same extent, but the lack of knowledge can vary according to different inadequate ideas. In a similar way, adequate ideas provided by reason do not need to involve a complete idea of the order of Nature and its universal laws, but an encompassing understanding of the causes which concerns certain effects. Consequently, the distinction between imagination and reason does not consist in an opposition to different epistemic contents, but it is intimately connected to ideas that there are different degrees of agreement and disagreement which characterize the way particular way things interact with each other.

Part III

A New Perspective on Spinoza's Account of Human Nature and Freedom

Chapter 8

Spinoza's Free Man between Imagination and Reason

At the end of the fourth part of the *Ethics*, Spinoza introduced the figure of the free man who is guided only by reason and does not have any concept of 'good' and 'evil'. Spinoza had previously stressed the need to create a model of human nature, in order to help individuals overcome the bondage of the passions and become free. However, his reference to the *naturae humanae exemplar* in the preface and the use of counterfactual sentences²⁵³ in the propositions on the free man have become a highly debated issue of Spinoza's practical philosophy. Most scholars²⁵⁴ agree on identifying the model of human nature with the free man. Nevertheless, this identification turns out to be puzzling on two different levels: ethical and epistemic.

From an ethical standpoint, the free man seems to have only adequate ideas and no passions.²⁵⁵ No individual could achieve this kind of perfection because all human beings necessarily have inadequate ideas and are passive to some extent (EIVp4c). Hence, the

253 By counterfactuals I mean a conditional with a false If-clause in which the protasis is clearly false, insofar as it contradicts well-known facts. Kisner (2011) stressed the importance of counterfactual statements in Spinoza's propositions on the free man. Kisner used the term counterfactual statements in a very general and common sense.

254 See for instances Don Garret (1990), Youpa (2010), Santinelli (2012) and Nadler (2015). Significant exceptions are Bennet (1984) and Scribano (2012) who suggests that the use of the word 'model' is a relic of an outlook that Spinoza had in his early writings and he abandoned in the *Ethics*. In his alternative reading, Kisner (2011, chap. 8) rejects the identification between the model of human nature and free man, since Spinoza has never referred to the free man as a model of human nature explicitly.

²⁵⁵ The issue has been highly debated. In fact, that the free man does not have any inadequate ideas and no passions is the most accepted interpretation among scholars. However, Kisner (2011, chapter 8) points out that there is evidence that the free man is subject to passions to some extent. In a different way, Nadler rejects the idea that the condition of the free man is characterized by a complete absence of passions and inadequate ideas. Rather, he suggests that "adequate ideas are regularly affectively stronger than their inadequate ideas and thus serve to determine" the free man's desire (Nadler 2015, 112).

free man would be an idealized, imaginative and unattainable model of human nature.²⁵⁶ Nevertheless, this contradicts Spinoza's ethical and political realism which does not aim to conceive human beings as we "would like them to be", "to laugh at human actions, or mourn them, or curse them, but only to understand them" as they really are according to their nature (TP 1,1). Having adequate ideas is the only way for human beings to become active and free. The perfection of the free man and his kind of freedom does not seem to be based on an understanding of human nature and human freedom. Consequently, individuals would struggle in vain to achieve an unrealizable perfection and form a wrong concept of human freedom which cannot improve their power of acting and the understanding of human nature.

From an epistemic standpoint, Spinoza's propositions on the free man include counterfactual statements. Matthew Kisner has argued that these counterfactuals show that the free man should be conceived as "a kind of thought experiment" instead of a model of human nature (Kisner 2011, 175). Nevertheless, the function and epistemic content of counterfactual statements cannot be taken for granted in Spinoza's epistemology. Indeed, he distinguishes three kinds of knowledge: (1) imagination, which cannot provide any adequate idea, (2) reason and (3) intuitive knowledge (*scientia intuitiva*), both of which enable human beings to understand things adequately and become free. In his mature works, Spinoza had never distinguished fictitious or counterfactual statements from other inadequate ideas or clarified their epistemic content explicitly. Since these seem to entail the use of the imagination in order to make an adequate content more understandable, it is necessary to investigate whether or not the propositions on the free man can provide an adequate understanding of things.²⁵⁷

²⁵⁶ Don Garrett (1990) suggests that the free man is an imaginative model without any adequate content. Although according to this reading it has a useful practical function in directing human behavior, it does not help us to achieve a better understanding of things or to become free.

²⁵⁷ I am not aware of any research that addresses this problem in Spinoza's practical philosophy. As Jaquet (2005, 185) highlights, Spinoza does not talk about fictive ideas in his mature works because of their strong voluntarist dimension.

In this chapter, I aim to offer a solution to both the ethical and the epistemic problems in order to clarify the role of Spinoza's free man. My claim is to underline the deep connection between Spinoza's account of imagination and reason that figure in Letter 32 and counterfactual statements in EIV. Here, imagination supports human knowledge without impeding an adequate and rational understanding of things. Consequently, while scholars have ascribed to the free man either a marginal practical function based on imagination or struggled to conceive it as an adequate idea of human nature, I will argue that these two things are connected by means of to a virtuous use of the imagination as presented in EIV. In my reading the free man is a *rational* model of human nature²⁵⁸ which plays a twofold role: On the one hand, he carries out a pedagogical project by offering a visible model to which human beings might look and whose behavior they might imitate. On the other hand, since the free man always act according to human nature and strives for the highest degree possible of agreement with other human beings, these propositions rest on common notions and help human beings understand what is really useful for all individuals. These two roles are deeply interconnected and together they support human beings to act according to reason and to progress towards a higher degree of freedom.²⁵⁹

Although counterfactuals, fictions and thought experiments play a pivotal role in Spinoza's practical philosophy, their epistemic function has not been clarified yet.

²⁵⁸ I choose the word *rational* only to highlight that this model is based on adequate ideas and not only on imaginative content as some scholars have argued (see Garrett 1990). I do not argue for an interpretation in which *rational* means that the model arose from an idealization of human nature.

²⁵⁹ A deep and complete discussion of Spinoza's account of human freedom is beyond the aim of this chapter, since it would need an investigation of EV, too. Consequently, I will limit my argument to what immediately concerns Spinoza's free man. However, my claim is that Spinoza's account of human freedom does not require individuals to become perfectly active or be guided exclusively by adequate ideas. Rather, human freedom is better understood and achieved by a gradual increase in self-determination (see Kisner 2011). From this point of view, a human being can be free in Spinoza's sense while to some extent still having passions and inadequate ideas. Several scholars highlighted the relation between Spinoza's account of freedom and the individual *conatus* and suggested that freedom should be understood as a process of gradual appropriation. This consists in the individual's capacity to understand external causes *as if* they were his own reason for acting (see Lenz 2017).

My argument goes as follows. First, I will lay down the foundation for my own interpretation of EIV by suggesting that Spinoza sought to provide a model of human nature based on common notions and not, as in the case of imaginative models, on universal ideas or on abstraction from particular things. This is important to clarify that Spinoza does not contradict himself by offering his own model of human nature, or that this might play only a marginal role in his practical philosophy. Second, I will analyze Spinoza's argumentative strategy in Letter 32 to Oldenburg in order to highlight a virtuous use of imagination and the connection between Spinoza's common notion and his account of agreement. In this letter Spinoza provides a thought experiment, which is an important case study for better understanding how imagination can help develop rational knowledge. Moreover, Spinoza sketched his account of agreement and disagreement that it is fundamental in order to clarify his concept of human nature and the function of the free man in EIV. Finally, I will proceed with the investigation of EIV. I will show that counterfactual statements do not aim to highlight the impossible existence of the free man. Rather, they leverage a virtuous use of the imagination in order to provide an adequate understanding of human beings. As I will show, EIVp18s clarifies the role and function of the free man, and why he can be considered a rational model of human nature. Here, Spinoza assumed the existence of a common human nature and since the dictate of reason always prescribes to act according to one's own nature, the free man always acts for the interest of all individuals as far as he can.

8.1. Two Functions of Spinoza's Rational Model

In the preface of EIV, Spinoza announced that he will focus on human bondage, i.e., "man's lack of power to moderate and restrain the affects", and its causes. (EIVpref) Consequently, the propositions on the free man are completely unexpected at the end of this part, since this seems to represent an example of perfect human freedom.

Spinoza characterized the free man as follows: He “lives according to the dictate of reason alone” (EIVp67dem), he does not seem to have any concept of good and evil (EIVp68) and “always acts honestly, not deceptively” (EIVp72). His perfection suggests that he corresponds to the models of human nature that Spinoza talked about at the end of the preface:²⁶⁰

For because we desire (*cupimus*) to form an idea of man, as a model of human nature (*naturae humanae exemplar*) which we may look to, it will be useful to us to retain these same words with the meaning I have indicated. In what follows, therefore, I shall understand by good what we know certainly is a means by which we may approach nearer and nearer to the model of human nature that we set before ourselves. By evil, what we certainly know prevents us from becoming like that model. Next, we shall say that men are more perfect or imperfect, insofar as they approach more or less near to this model (EIVpreface).

Cristina Santinelli has pointed out an ambiguity in the royal “we” used in this passage. Spinoza said that “we desire [*cupimus*] to form an idea of man, as a model of human nature which we may look to”. This offers two possible interpretations: 1) Spinoza wants to stress a psychological need of every human being, i.e., the need to direct its behavior according to some models, and his model has a temporary pedagogical function;²⁶¹ 2) he really intends to offer a model of human nature in his practical philosophy. This latter possibility has been often neglected, since Spinoza has criticized the notion of model in this very preface (Santinelli 2012, 46).

Spinoza’s criticism of models is deeply connected with his refusal of final causes in Nature.²⁶² Human beings are used to judging a work perfect or imperfect according to the mind or purpose of its

²⁶⁰ See, for instance, Youpa 2010, Nadler 2006 and Santinelli 2012 who agree, in a different way, on considering the free man the model of human nature.

²⁶¹ This is the interpretation of all those authors who see in the free man an unattainable, idealized and purely imaginative model of human nature that does not correspond to any adequate ideas (see Don Garret 1990 and Garber 2004).

²⁶² This criticism is fully developed in the appendix of EI and in the preface of EIV.

author. For instance, the more a building is similar to the blueprint of an architect, the more they say that it is perfect. Consequently, the perfection and imperfection of things depend on the idea that human beings have formed of it and not on the thing itself. The main problems of this mode of thinking arose when human beings attributed purposes to Nature itself:

Nor does there seem to be any other reason why men also commonly call perfect or imperfect natural things, which have not been made by human hand. For they are accustomed to form universal ideas of natural things as much as they do of artificial ones. They regard these universal ideas as models of things, and believe that nature (which they think does nothing except for the sake of some end) looks to them, and sets them before itself as models. So when they see something happen in nature which does not agree with the model they have conceived of this kind of thing, they believe that Nature itself has failed or sinned, and left the thing imperfect. (EIVpref)

Spinoza's criticism aims to reject the anthropomorphic prejudice that God and all things act for the sake of some end. In fact, human beings think that the perfection of things depend on how these conform to their abstract ideas and purposes. However, Spinoza denies that things act for the sake of some end. What human beings call 'ends' are only their own appetites, which lead them to strive for certain things, "insofar as it is considered as a principle, *or* primary cause, of something" (EIVpref).²⁶³

In spite of this criticism, Spinoza did not reject the concept of model *tout court*. His criticism should be understood without neglecting the distinction between universal ideas (based on imagination) and common notions (which are the foundations of our reasoning). Human beings "believe that Nature itself has failed or

²⁶³ "For example, when we say that habitation was the final cause of this or that house, surely we understand nothing but that a man, because he imagined the conveniences of domestic life, had an appetite to build a house. So habitation, insofar as it is considered as a final cause, is nothing more than this singular appetite. It is really an efficient cause, which is considered as a first cause, because men are commonly ignorant of the causes of their appetites" (EIVpref).

sinned, and left the thing imperfect” (EIVpref) not because they know how things are, but because they form universal ideas from their own appetites and experiences. Notions – such as ‘good’ and ‘evil’, ‘perfect’ and ‘imperfect’ – and the models that arose in this way are not based on any adequate idea, insofar as they tell us more about individual’s constitution and appetites than about the nature of things.²⁶⁴ Indeed, human beings “are accustomed to call natural things ‘perfect’ or ‘imperfect’ more from prejudice than from true knowledge of those things” (EIVpref). Consequently, Spinoza’s criticism of these notions was connected with his criticism of transcendental and universal ideas in EIIp40s1. Universal ideas like ‘Man’, ‘Horse’ and ‘Dog’ arose from human limited power of imagination and do not offer any ground for reasoning (E2p40s1). Human beings do not have any chance to know things in themselves through these, but only something about how their body is affected by external things. Since they value things and Nature according to universal ideas, prejudices and an inadequate, anthropomorphic understanding of Nature cannot be avoided:

Perfection and imperfection, therefore, are only modes of thinking, i.e., notions we are accustomed to feign because we compare individuals of the same species or genus to one another. This is why I said above that by reality and perfection I understand the same thing. [...] And insofar as we attribute something to them [the things] that involves negation, like a limit, an end, lack of power, etc., we call them imperfect, because they do not affect our Mind as much as those we call perfect, and not because something is lacking in them which is theirs, or because Nature has sinned. For nothing belongs to the nature of anything except what follows from the necessity of the nature of the efficient cause. And whatever follows from the necessity of the nature of the efficient cause happens necessarily (E4pref).

²⁶⁴ Our knowledge of things based on the constitution of our body is an imaginative knowledge which cannot provide any adequate idea. (See EIIp27 and p41)

The problem of all these notions, such as ‘good’, ‘evil’, ‘perfect’ and ‘imperfect’, is that they do not indicate anything positive in Nature, but only some way of our mind being affected in a certain way.²⁶⁵ However, Spinoza’s targets were universal ideas and, consequently, models as formed from inadequate ideas. In EII, Spinoza affirmed that human beings can have an adequate knowledge of “those things which are common to all, and which are equally in the part and in the whole” (EIIp38) such as God’s attributes or the physical laws. Furthermore, he recognizes a second kind of common notion, namely the proper one:²⁶⁶

If something is common to, and peculiar to, the human Body and certain external bodies by which the human Body is usually affected, and is equally in the part and in the whole of each of them, its idea will also be adequate in the Mind. (EIIp39)²⁶⁷

This latter kind of common notion is particularly important, since individuals can have an adequate knowledge of something that is common to them and a group of external bodies – and not to all bodies. As I will argue in the last section, the propositions on the free man rest on the idea that “human nature is possessed in common by all men” (Steinberg 2008, 313). Consequently, the two possible

²⁶⁵ It is important to remember that affects are for Spinoza “affections of the Body by which the Body’s power of acting is increased or diminished, aided or restrained, and at the same time, the ideas of these affections”. (EIIID3) Consequently, all affects are a transition from one degree of power to another, and not a thing or a state.

²⁶⁶ French scholars stressed the importance of this kind of notions (See Sévéric 2017), while it is often neglected in Anglo-American debates.

²⁶⁷ In the demonstration, the proper common notions are described like common properties of certain bodies by Spinoza: “Let A be that which is common to, and peculiar to, the human Body and certain external bodies, which is equally in the human Body and in the same external bodies, and finally, which is equally in the part of each external body and in the whole. There will be an adequate idea of A in God (by P7C), both insofar as he has the idea of the human Body, and insofar as he has ideas of the posited external bodies. Let it be posited now that the human Body is affected by an external body through what it has in common with it, i.e., by A; the idea of this affection will involve property A (by P16), and so (by P7C) the idea of this affection, insofar as it involves property A, will be adequate in God insofar as he is affected with the idea of the human Body, i.e. (by P13), insofar as he constitutes the nature of the human Mind. And so (by P11C), this idea is also adequate in the human Mind, q.e.d.”. Spinoza recognizes that human beings might have an adequate knowledge of certain features that concerns only certain bodies. Moreover, this knowledge implies affections, i.e. sense perception. Con

senses of the word *cupimus* highlight both Spinoza's pedagogical attitude to foster human beings' acting and his desire to offer an adequate model of human nature in order to help an individual overcome the bondage of passions and increase its power of acting (Santinelli 2012, 57). The pedagogical function and the adequate content are not mutually exclusive, but they might come together in the proposition on the free man because, as I will show by analyzing the Letter 32 in the next section, a virtuous use of the imagination can support human understanding by means of reason.

8.2. Spinoza's Use of the Imagination and his Account of Agreement in Letter 32

In Letter 32, Spinoza answers to Oldenburg and Boyle's question "concerning our knowledge of how each part of Nature agrees with its whole and in what way it agrees with other things" (Letter 31). In his answer, Spinoza indirectly demonstrated how imagination helps human beings understand things by means of reason. In fact, Spinoza provided a thought experiment concerning a little worm in the blood in order to clarify how human beings live in the whole universe. As I have shown in the previous part of my dissertation, this thought experiment is particularly suited to support my argument that there is a connection between imagination and reason when Spinoza aimed to achieve an epistemic and ethical goal at the same time.

The ethical perspective of Letter 32 can be brought to light by paying attention to its context. Indeed, Spinoza explains his philosophical and ethical approach during the English-Dutch war in 1665 in Letter 30. Here, he affirmed:

But these turmoils move me, neither to laughter nor even to tears, but to philosophizing and to observing human nature better. For *I do not think it right for me to mock nature, much less to lament it, when I reflect that men, like all other things, are only a part of nature, and that I do not know how each part of nature agrees [convenient] with the whole to which it belongs, and how it coheres with the other parts.* And I find, simply from the lack of

this knowledge, that certain things in nature, which I perceive in part and only in a mutilated way, and which do not agree at all with our philosophic mind, previously seemed to me vain, disorderly and absurd, whereas now I permit each to live according to his own mentality. Surely those who wish to die for their good may do so, so long as I am allowed to live for the true good (Letter 30, my emphasis).

Undermining an anthropomorphic conception of Nature, avoiding a moralistic judgment of human behavior, and rejecting the idea of human beings as an *imperium in imperio* are the leitmotifs of Spinoza's practical philosophy. Providing a different, adequate conception of Nature and of human condition enables human beings to act in a different way.²⁶⁸ Spinoza's ethical goal was to offer and to make understandable a new philosophical perspective which might help human beings to progress towards a higher degree of freedom. This goal is still present in Letter 32 and can be found throughout the *Ethics* as well as Spinoza's political works. The thought experiment of the worm in the blood, that I will analyze in this section, has the function to help the reader understand how everything – human beings included – is a part of Nature and embracing a new ethical and philosophical approach. Consequently, it is relevant on both epistemic and ethical levels.

To answer Oldenburg's question concerning the relation among the parts and the whole, Spinoza clarified that nobody can know *how* each part of Nature "agrees with its whole and how it coheres with others", since this knowledge depends on a knowledge of the "whole of Nature and all of its parts". Rather, there were reasons which compelled Spinoza to affirm (*rationes, quibus persuademur*) that each part agrees with its whole and coheres with other parts,²⁶⁹ i.e., that

²⁶⁸ Toto (2019) points out that this letter does not only have an epistemic content, but there is also an ethical issue at stake.

²⁶⁹ This distinction is particularly important. Toto (2019) suggests that it is the key to understand the difference between Oldenburg's "scientific" approach and Spinoza's "philosophical" one. Sangiacomo argues for the validity of Spinoza's distinction, since we can know *that* all things belong to the same order of Nature without knowing *how* it does happen. (See Sangiacomo 2013, 115-16) In fact, Spinoza denies any possibility to achieve adequate knowledge of the whole of

there is a universal order of Nature to which each part belongs. Before analyzing said thought experiment, it is necessary to address Spinoza's explanation of this agreement of each part with the whole and other parts which the experiment is based on. As Spinoza clarifies:

By the coherence of parts, then, I understand nothing but that the laws or the nature of the one part adapts itself to the laws or the nature of the other part so that they are opposed to each other as little as possible. Concerning whole and parts, I consider things as parts of some whole to the extent that the nature of the one adapts itself to that of the other so that they [A: all] agree [*convenient*] with one another as far as possible. But insofar as they disagree [*discrepant*] with one another, to that extent each forms in our Mind an idea distinct from the others, and therefore it is considered as a whole and not as a part (Letter 32).

Here, Spinoza identified *laws* and the *nature(s)* of things and suggested that a precondition for the coherence of parts is the possibility of an adaptation between their nature or laws. When this happens, things might agree with each other and form a whole. This passage is important for three reasons: 1) the identification between laws and the natures of things; 2) the strong connection between agreement/disagreement and the whole/parts relationship; and 3) the fact that agreement (*convenire*) and disagreement (*discrepare*) seem to have varying degrees, since things are opposed to each other as little as possible (*minime*) in a whole – but not completely identified.²⁷⁰

Nature and all its parts, but he hints at the possibility of knowing the order of Nature to which each part belongs. Since we cannot know all things — only God does —, we cannot know *how* each thing agrees with the whole of Nature. But the knowledge *that* each part of Nature agrees with its whole is not based on the knowledge of all particulars and their relationship, but of something universals in Nature.

²⁷⁰ The interpretation of this passage is tricky insofar as it could seem that the agreement is a kind of complete identification and adaptation between two things in Nature. I leave this possibility aside and argue, with Toto (2019), Sangiacomo (2019) and Steinberg (2019) that agreement does not imply a complete unity and identification among the different parts. Indeed, Spinoza never says that things have the same laws and nature(s), but only that their laws should enable their mutual adaptation so they are opposed to each other as little as possible.

In his *Theological-Political Treatise*, Spinoza distinguished two types of laws: type-I that are laws of nature which are necessary and metaphysically basic; and type-II which depend on human volition, such as that of a particular state. The laws of type-I are descriptive and follow necessarily from the nature of a thing, i.e., they express things' own causal powers. That of type-II do not follow necessarily and are normative, i.e. civil laws.²⁷¹ In Letter 32, the identification between laws and natures of a thing was possible because Spinoza referred to type-I laws. Moreover, it is important to notice that he acknowledged that less universal laws exist, i.e. certain causal power of particular things, and more universal laws of Nature, i.e. the physical laws of the whole universe. This distinction leads to that between universal and proper common notions which I have addressed in the previous section. In fact, being a part or a whole depends on the fact that things agree or not with each other. What this means, it becomes clear from Spinoza's example of the blood. Chyle, lymph and other parts form one fluid (the blood), insofar as they produce common effects and move according to the universal laws of the blood. Briefly, things agree when they act according to common laws. However, this does not mean that these parts cannot differ from each other to some extent at the same time. As Spinoza clearly stressed, the elements of the blood can disagree with each other and can be conceived as a whole itself as soon as they produce effects that do not fit in and are not understandable through the universal laws of the blood. Consequently, a complete agreement and complete disagreement are two extremes of a scale, but not the only two options.

Although Spinoza does not talk about common notions in this letter, this text can help us understand the strong connection between Spinoza's common notions and his account of agreement (Sangiaco 2019, 118-130). The more things express their causal

²⁷¹ I use the distinction between two different types of law offered by Rutherford (2010) here. Spinoza was already working on the TTP in 1665 where he distinguishes between these two types of laws.

powers according to a common law or nature, the more they agree with each other and form a whole. These common effects are produced according to the common properties of things, i.e. their common notions.²⁷² In the next section, I will contend that the free man always acts according to human nature, which is understandable through common notions, and consequently, he strives to the highest degree possible of agreement with other human beings as far as he can.²⁷³

Spinoza offered a thought experiment²⁷⁴ about a little worm in the blood, after the explanation how different elements can form the blood. He asked his reader to proceed as follows:

Let us feign now, if you please, that there is a little worm living in the blood which is capable of distinguishing by sight the particles of the blood, of lymph, [A: of chyle], etc., and capable of observing by reason how each particle, when it encounters another, either bounces back, or communicates a part of its motion, etc. Indeed, it would live in this blood as we do in this part of the universe, and would consider each particle of the blood as a whole, not as a part. It could not know how all the parts of the blood are regulated by the universal nature of the blood, and compelled to adapt themselves to one another, as the universal nature of the blood requires, so that they agree with one another in a definite way.

Two important points should be stressed: firstly, an imaginative effort is needed, insofar as we do not only have to feign that there is a little worm living in the blood, but also insofar as we should attribute

²⁷² A more extended and deeper investigation of Spinoza's notion of agreement and his connection with common notions can be found in Sangiacomo (2019) who focuses on the specific role and kind of causal interactions that things need to agree with others. (see Sangiacomo 2019, 118-126).

²⁷³ I agree with Diane Steinberg's argument that the relationship between mankind and human beings should be understood through Spinoza's whole-part relationship. Steinberg points out that human beings necessarily, and not accidentally, share some interests in Spinoza's ethical doctrine, insofar as they are all part of the mankind. Steinberg shows that the welfare of each individual necessarily corresponds with that of every other to some extent (see Steinberg 1984).

²⁷⁴ For an historical example of the use and function of thought experiments in early modern works see Palmerino (2018) who shows different epistemic nuances of Galileo's thought experiments.

to it human perception and cognitive faculties. Secondly, Spinoza talked about the universal nature of the blood which the little worm fails to apprehend. Spinoza's strategy consists in two different, but connected, steps. First, he asks us the readers to identify with the little worm, insofar as we can imagine that it distinguishes the part of the blood much like we see different things. Like us the worm experiences the opposition of external things and the contrary effects that the parts of the blood cause. In a certain way, we are the worm itself and are able to understand its point of view. However, we differ from it, insofar as we are more complex and live on a higher level of Nature. We know that all these parts agree with each other and form a whole, i.e., the blood, despite some minor differences. The motion of each part is regulated and understandable according to the universal nature of the blood. Briefly, we are aware of the worm's mistakes and limited point of view. The worm does not know how all these parts cohere, since it is ignorant of the universal laws through which they are regulated.

The second step becomes evident when Spinoza asks us to feign that the blood is the whole universe and there is no cause outside of it. This is a clearly wrong assumption, since we know immediately that the blood is not the whole universe. The falsity of this assumption leads us to acknowledge the limits of the worm's condition and, since we have identified with it, we therefore apprehend our own limited epistemic condition in the infinite universe. Hence, Spinoza's thought experiment helps us to understand our condition in Nature and forces us to change our perspective.

This thought experiment highlights a useful connection between imagination and reason. Although the former does not provide any adequate idea, it has an important practical function that helps human beings understand the whole Nature adequately. In fact, we can identify with the worm in virtue of the use of the imagination, but we do not make the mistake to think that the blood is the whole universe. This is possible because, as Spinoza affirmed in the *scholium* of E2p17, "the imaginations of the Mind, considered in themselves

contain no error, or that the Mind does not err from the fact that it imagines”. The error depends on the fact that our mind is considered to “lack an idea that excludes the existence of those things that it imagines to be present to it”. But Spinoza said further that “if the Mind, while it imagined nonexistent things as present to it, at the same time knew that those things did not exist, it would, of course, attribute this power of imagining to a virtue of its nature, not to a vice”. (EIIp17s)

8.3. A Virtuous Use of Imagination and Human Nature in EIV

In the first section of this chapter, I suggested that the free man is not an idealized, unattainable and purely imaginative model of human nature, but the propositions about him rest on an adequate understanding of human nature. Consequently, I will argue that the free man is a *rational* model of human nature in virtue of the adequate content he conveys which distinguishes Spinoza’s model from the one he criticized in the preface. However, this does not impede him to have a pedagogical function by offering a visible and imaginative model which helps human beings act according to the dictate of reason. The use of imagination in Letter 32 provides the template to better understand how the free man can play a pivotal pedagogical function in helping individuals better understand human nature without undermining his adequate content. In fact, the imagination does not necessarily impede achieving an adequate knowledge *per se*, but it can support reason in making some adequate content easily understandable by excluding wrong representations of Nature, as we have seen in Spinoza’s thought experiment of the worm in the blood.

In EIVp68 Spinoza affirms that “if men were born free, they would form no concept of good and evil so long as they remained free”. In the demonstration Spinoza seemed to clarify who might be considered free:

I call free a man who is led by reason alone. Therefore, he who is born free, and remains free, has only adequate ideas, and so has no

concept of evil (by P64C). And since good and evil are correlates, he also has no concept of good, q.e.d. (EIVp68).

This passage seems to confirm the idea that the free is an idealized and unattainable model of human freedom. Nobody can become free as the free man, since every individual is a limited part of nature, always subjected to external causes, and necessarily forms concepts of good and evil according to how he is affected by external things. This seems to be confirmed in the *scholium* which refers to the fact that it is impossible that a human being is not a part of Nature and acts only according to his own nature. However, Spinoza did not affirm here that the free man does not form any concept of good and evil, but only that a free man is led by reason alone. The fact that he should be born free and not have any concept of good and evil does not refer to the free man, but the counterfactual hypothesis of a man who is born free.²⁷⁵ Furthermore, there is a case in which this hypothesis is conceivable in a different way:

It is evident from P4²⁷⁶ that the hypothesis of this proposition is false and cannot be conceived unless we attend only to human nature, or rather to God, not insofar as he is infinite, but insofar only as he is the cause of man's existence.

Spinoza's specification that the hypothesis "cannot be conceived unless we attend only to human nature" is fundamental in order to understand the content of this proposition. The difficulty to understand this passage is due to the complexity of the argument, in which, again, imagination and reason collaborate. The counterfactual statement shows an impossible situation in which a human being is born free and remains free during his entire life. If we have understood the previous propositions from the *Ethics*, we can immediately acknowledge the impossibility of this situation. This is

²⁷⁵ Nadler stresses that what is false in EIVp68 is that a man might be born free and not form any concept of good and evil. However, Spinoza does not affirm explicitly that the free man does not exist, since his overall goal is freedom and human beings can become free.

²⁷⁶ "It is impossible that a man should not be a part of Nature, and that he should be able to undergo no changes except those which can be understood through his own nature alone, and of which he is the adequate cause" EIVp4.

due to the temporal context, as the reference to the moment of the birth and the words “so long as they remained free” highlight. Here, as in the thought experiment of the little worm in the blood, we can imagine an impossible situation without thinking that this can be realized. However, the aim of this proposition is not to prove or to suggest the impossibility of the existence of a free man *tout court*. Rather, the virtuous use of imagination helps us to better understand human nature and the origin of the concept of good and evil, which Spinoza previously discussed. In fact, we imagine and sympathize with an individual who is born completely free. While we know about the impossibility of this statement, but we can acknowledge at the same time that human nature in itself does not imply any concept of good and evil. In fact, these are not properties of things in themselves, but they express transitions to greater or lesser perfection of a thing caused by the casual interaction with external things. Good and evil are not things and do not constitute human nature in itself. In fact, these concepts do not depend on an adequate knowledge of the nature of things, but they are the results of a casual interaction among things.²⁷⁷ Spinoza’s use of counterfactual statement clarifies that no human being can form these concepts by conceiving human nature in itself and this provides a better understanding of human nature and the human condition.

EIV68 does not have the function of presenting the free man as an idealized, unattainable and only imaginative model of human nature. A clarification of his function and role in the *Ethics* should be sought in the *scholium* of EIVp18. Indeed, this is the turning point of Spinoza’s argumentation in EIV. After a description and explanation

²⁷⁷ ‘Affects’ are not states or things existing in Nature, but they express transitions to greater or lesser perfection. As we can see in Spinoza’s definition of joy and sadness, joy is a “passion by which the Mind passes to a greater perfection”, while sadness is “that passion by which it passes to a lesser perfection”. (EIIIp11s) There are no absolute moral values for Spinoza, but he introduces the notions of ‘good’ and ‘evil’ as relative terms in the fourth part of the *Ethics*. Since “the knowledge of good and evil is nothing but an affect of joy or sadness, insofar as we are conscious of it” (EIVp8), Spinoza affirmed that this knowledge is an inadequate one. (EIVp64) For a deeper investigation on this topic and the key role of desire in Spinoza’s account of good and evil, see Scribano 2012.

of the humans' lack of power and of human condition, Spinoza aims to develop his practical philosophy and to show which affects and behaviors can help human beings increase their power of acting:

Now it remains for me to show what reason prescribes to us, which affects agree with the rules of human reason, and which, on the other hand, are contrary to those rules (EIVp18s).²⁷⁸

The most important aspect of this *scholium* is the synopsis of what he is going to explain in geometric order afterwards. Spinoza argues that even though external things can produce some effects that hinder the expression of human power of acting it does not mean that external things cannot be useful for human beings. Actually, many of them turn out to be useful and the criteria to recognize which things can increase human power of acting is their degree of agreement with human nature.²⁷⁹ Hence, Spinoza's practical solution, at least in EIV, does not consist in ascetic isolation, but in assessing to which degree external things might agree with human nature and be useful to all human beings. Since external things are different and produce effects according to their own nature(s), they can agree according to different degrees with human beings and thus increase human power of acting to different extents. Moreover, Spinoza affirms that other human beings are the most useful:

There are, therefore, many things outside us which are useful to us, and on that account to be sought.

Of these, we can think of none more excellent than those that agree [*conveniunt*] entirely with our nature. For if, for example, two individuals of entirely the same nature are joined to one

²⁷⁸ Santinelli points out the uncommon use, for Spinoza, of a normative vocabulary in this scholium, which precedes the development of Spinoza's practical philosophy. (Santinelli 2012, 47-48)

²⁷⁹ Spinoza has never clearly defined human nature. Nevertheless, there are a number of references to a common human nature in the *Ethics*. In addition to the reference in EIV, we can already find a clue in EIp8s and, in particular in EIII. Here, Spinoza affirms that "each affect of each individual differs from the affect of another as much as the essence of the one from the essence of the other". (EIIIp57) Since he uses essence or nature of thing as synonyms, he points out here that the affects of animals differ from human affects as their nature differs from human nature. Other references to a common nature include EIIIp51 and p56.

another, they compose an individual twice as powerful as each one. To man, then, there is nothing more useful than man. Man, I say, can wish for nothing more helpful to the preservation of his being than that all should so agree [*convenient*] in all things that the Minds and Bodies of all would compose, as it were, one Mind and one Body; that all should strive together, as far as they can, to preserve their being; and that all, together, should seek. for themselves the common advantage of all.

From this it follows that men who are governed by reason – i.e., men who, from the guidance of reason, seek their own advantage – want nothing for themselves that they do not desire for other men. Hence, they are just, honest, and honorable (EIVp18s).

As in Letter 32 Spinoza's account of agreement plays a key role in the second part of EIV. In Letter 32, Spinoza addressed the most general agreement among all parts of Nature and how things can form a whole by producing common effects according to certain laws. In EIV, the focus is more specific. Spinoza addressed the way in which human beings agree with other useful things and an adequate understanding of human nature is fundamental, since the more things agree with human nature, the more they might increase human power of acting and be useful. Human beings agree to the highest degree as long as they act according to what they have in common, i.e. human nature. Furthermore, what is good for human nature is good for each human being. As Diane Steinberg has suggested, the relationship between human nature and human beings might be understood according to Spinoza's whole-part relationship and his account of agreement in Letter 32 (Steinberg 1984, 319). Since human beings have properties in common, they "have an essential unity with one another" and can form a whole. This is confirmed in the *scholium* of EIVp18 where Spinoza affirms that two human beings might agree with each other almost entirely and form an individual which is twice as powerful, i.e. a whole.

The propositions about the free man conclude Spinoza's investigation of the way in which external things can be useful or not

for human beings. This is the goal of the last part of the *Ethics*, from EIVp40 onwards, once indeed Spinoza introduced sociability as the criterion to assess what is really good or evil for all human beings. The figure of the free man was introduced alongside another figure in the *Ethics*, i.e., the slave, and Spinoza referred the reader to proposition 18:

If these things are compared with those we have shown in this Part up to P18, concerning the powers of the affects, we shall easily see what the difference is between a man who is led only by an affect, or by opinion, and one who is led by reason. For the former, whether he will or no, does those things he is most ignorant of, whereas the latter complies with no one's wishes but his own, and does only those things he knows to be the most important in life, and therefore desires very greatly. Hence, I call the former a slave, but the latter, a free man (EIVp66s).

The key to interpret the role and function of Spinoza's free man is to understand what it means to be led by reason: "Reason demands nothing contrary to nature, it demands that everyone love himself, seek his own advantage, what is really useful to him, want what will really lead man to a greater perfection, and absolutely, that everyone should strive to preserve his own being as far as he can" (EIVp18s). In this perspective, the slave and the free man should be understood as two figures that represents the two opposite extremes of a scale. The former does not act according to what human beings have in common because he is mainly led by passions and acts according to inadequate ideas – and human beings do not agree when they are subjected to passions (EIVp32 and 34). Consequently, he disagrees with other human beings at most. Instead, the latter strives towards the highest degree possible of agreement with other human beings. Since he is guided by reason alone, he necessarily seeks the true interest of all human being, "insofar as men live according to the guidance of reason, must they always agree in nature" (EIV35).

A closer look at the propositions about the free man shows that he acts in a way that does not imply any contradiction with the

properties which human beings have in common. Indeed, human nature does not include the idea of self-destruction (E4p67) or any idea of good and evil (p68). Furthermore, human beings strive to express their own power of acting, and not to restrain it (p69). Since human beings act according to human reason, they strive to agree with things that they know are useful and avoid what is harmful to them. Consequently, the free man who lives among ignorant people, which are led by passions and cause disagreement, avoids their favors as much as he can (p70 and s). However, the free man is not an ascetic and isolated figure, but his sociability becomes evident when Spinoza affirms that he “always acts honestly, not deceptively” despite the *conatus*. (EVIp72 and dem)²⁸⁰ or that a man who lives with other human beings and cooperates with them is more free than a man living by himself (p73).²⁸¹

Now, Spinoza’s free man might play a pivotal pedagogical and practical function as a visible model of human nature, since human beings might look towards him, identify themselves with him in virtue of the use of imagination and direct their action according to free man’s behavior. Furthermore, he acts according to what all human beings share. Consequently, his actions do not follow from abstract, extrinsic and purely normative rules as in the case of purely imaginative models, but from common notions. There is no moralist “should be” concerning his behavior which contradicts Spinoza’s ethical and political realism, but only the idea that human beings really have something in common and that the striving towards agreement is necessary to proceed towards a higher degree of freedom. It is important to notice that the free man is not perfectly active, but always act according to the laws of human nature *quantum*

²⁸⁰ This proposition seems to contradict the fact that individuals always act according to their self-interest. (See Don Garret 1990, Garber 2004) However, I do not see such contradiction in the light of the fact that Spinoza assumes that human beings share the same nature and consequently, “the welfare of each individual is identical with that of every other” to some extent. (Steinberg 2008, 314)

²⁸¹ “A man who is guided by reason is more free in a state, where he lives according to a common decision, than in solitude, where he obeys only himself.” EIVp73.

potest. Since Spinoza's idea of virtue is not a self-sufficient one – that is one that would lead people to seek isolation – but based on the relationality of modes' existence, the free man always has to deal with external things, which can hinder, as ignorant people do, achieving agreement.

Conclusion

The three main topics (investigated in my dissertation) have revealed the importance of the notion of agreement in the development of Spinoza's cosmology, epistemology and moral philosophy. As the analysis of Letter 32 in chapter eight has shown, Spinoza discussed his mereological account of the universe in close connection to his main ethical goal which consists in the understanding of the human condition and the kind of freedom that it allows for. My investigation began by analyzing the notion of the order of Nature and the structure of the universe and culminated with an investigation into the figure of the free man, the latter of which plays a pivotal pedagogical role and reveals a key practical aspect of Spinoza's account of freedom. I focused on the development of Spinoza's theory of mind and knowledge in order to show that it cannot be understood without taking into account the conceptual, scientific and philosophical framework of the seventeenth-century Netherlands. Moreover, I have shown that understanding Spinoza's mereology is key to understanding his notions of 'inadequate/adequate' and 'external/internal'.

The chronological approach of investigating Spinoza's notion of order (throughout his works) shed light on the importance of rethinking theoretical problems and of looking at conceptual developments concerning different conceptual pairs, such as infinite/finite, substance/mode, universal/particular, in relation to the nature of the material world. These aspects played an important role in laying the foundation of the conceptual framework of the *Ethics*.

In the first part of my dissertation, I have shown that (despite important continuities) the cosmological view presented in Spinoza's early writings differs from that of the *Ethics*. While Spinoza was unclear in defining the notions of whole and parts in the KV, this

conceptual pair became more transparent and fundamental to explain the universe as an infinite modal whole, in which different degrees of complexity can be recognized, from 1665 onwards. Instead of the simple universal/particular distinction, which seems to be prominent in his early writings, Spinoza offered an account of whole-part relationship by means of which he conceived a scale of different degrees of causal power and agreement in Nature. This turns out to be particularly important with respect to a comparison of the early and mature conceptual frameworks in which his theory of mind and freedom are situated. By taking into account the development of a specific worldview throughout Spinoza's works, it is possible to grasp the conceptual complexity of Spinoza's account of the whole of Nature and his tireless effort to reconcile the relevant metaphysical, physical, ethical and theological aspects concerning the notions of part and whole. For instance, the problem of the coexistence of infinitely many things and different properties within the unity of Nature was relevant in respect to metaphysical and natural philosophical debates. Spinoza did not only provide an ontological argument for the existence of a plurality of modes, but he presented a concrete physical account to show the concrete implications of his novel conception of God. While the identification of God with Nature is present from the beginning, his conception of the universe as an infinite mereologically-structured whole required an ontological conception of the notion of whole and part as well as a specific idea of the causal interaction among different things. In fact, this is fundamental to understand the intermodal dimension of Spinoza's philosophy, i.e., the kind of relation and causal interaction among finite modes in Nature.

This leads me to a key aspect of Spinoza's theory of mind in the *Ethics*, i.e., the human mind conceived as a part of God's infinite intellect. As I have shown, Spinoza's definition of the mind is ambiguous and he still conceived it in a Cartesian-dualist terms in the early writings. Furthermore, he endorsed a kind of ethical intellectualism in which the mind is self-sufficient and able to control

its passion through a kind of cognitive therapy without any relation to external things. To this view is also connected the idea of a sharp opposition between the imagination, as the cause of errors, and the intellect which alone is capable of achieving true knowledge of things. Spinoza's theory of mind and knowledge have undergone many changes until the publication of the *Ethics* in which the well-known thesis of the body-mind identity made its first appearance. This thesis (based on the idea that the order of things is the same of the order of ideas) follows from the metaphysical identification of God's power of acting and thinking. This lay the foundations for a new perspective on the nature of the human mind and its power which relies on a general explanation (of the physical explanation) of the common features and on the constitution of the body in the *Physical Interludes*. However, the novelty of Spinoza's approach does not only consist in the introduction of a physiological perspective, but also in the systematic use of the notions of whole and part in order to explain cognitive mechanisms. This turns out to be fundamental to better understand Spinoza's account of the imagination as part of the power of the mind and its relation to reason which rests on common notions. The distinction between imagination and reason - but also the common order of nature established according to external affections and that which characterizes the mind as internally disposed by reason - does not imply a gap between these two kinds of knowledge. Rather, this distinction is intimately connected to the different degrees of agreement and disagreement and is understandable only in the light of Spinoza's ontological understanding of whole-parts relationship presented in Letter 32. These are the *conditiones sine quibus non* which enabled Spinoza to introduce an intermodal dimension according to which finite things interact causally and produce different effects together. While Spinoza's early ethical intellectualism neglected human cooperation and human interaction with external things, these became fundamental to progress towards a higher degree of knowledge and, consequently, freedom. This change is deeply connected with the previous development of a mereological

account of the universe and with rethinking the causal interaction and power of finite things.

The final chapter of my dissertation aimed to apply the results of these previous investigations to offer a novel interpretation of Spinoza's figure of the free man in the *Ethics*. This new interpretation is based on the idea that this figure is Spinoza's model of human nature and that it plays a twofold role: a pedagogical and an ethical role. Letter 32 shows how Spinoza followed at the same time an epistemic and ethical goal in his explanation of agreement in Nature. A similar interpretive path can be traced in EIV in which he aimed to direct human behavior and to provide a model of human nature on the basis of an adequate understanding of human nature. Consequently, the free man plays a pivotal pedagogical role and helps achieve an adequate understanding of human nature, since the passages on the free man appeal to the human imagination and reason at the same time. Neither can the former provide human beings with adequate ideas, nor can the latter alone guarantee that human beings are able to act according to what they have in common. Rather, a virtuous use of the imagination supports human reason and individuals might behave virtuously and understand easily what it means to live guided by reason alone. In this way, they might proceed towards a higher degree of freedom.

This interpretation of the free man is the result of a chronological analysis of Spinoza's works in the context of the scientific and theological debate of his time. The clarification of Spinoza's account of agreement and disagreement in the first part and the possible coexistence between imagination and reason provides the basis to go beyond the dichotomy of an unattainable, imaginative model and adequate ideas. The development of a metaphysical cosmology following which each thing is conceived as a part of nature and that expresses a certain causal power in the form of an infinite scale of degrees enables one to embrace the idea of a different composition and mutual connection between finite things. Even though Spinoza acknowledged that there exists only an eternal and fixed order of

Nature, there are different degrees of universality corresponding to different degrees of agreement and causal interaction among parts. This came together with Spinoza's development of a positive account of the imagination and its relationship with reason from 1664 onwards. Since the imagination is ultimately conceived as a power of the mind which does not necessarily err, but can be used to guide human rational understanding in various respects. For instance, it fosters social cooperation and help to leave behind some forms of inadequate knowledge and to proceed toward a better understanding of things by changing the *ratio vivendi* of individuals or by creating imaginary scenarios.

All these aspects shows that Spinoza's idea of freedom cannot be separated from the idea of a fixed and eternal order of Nature. One can interpret Spinoza's mature philosophical and ethical project as the tireless effort to bring to light the interconnection of ontology, epistemology and practical philosophy. From a cosmological perspective it is necessary to understand the meaning of being only as part of Nature which exists according to a fixed and eternal order of Nature. From a cognitive perspective Spinoza faced the problem to explain successfully how human beings can avoid errors, and structure their ideas in a way which corresponds to the *connexio causarum* of the whole Nature. Finally, Spinoza's figure of the free man is based on the idea that human beings have certain properties in common and can form a unity by producing common effects. The expression of an individual's power also consists in the gradual appropriation of human nature by means of understanding the common properties which characterize human nature.

It is important to point out that the development of Spinoza's thought can be read by taking into account physical, political and theological issues and problems which were particularly discussed in the scientific and political community of seventeenth-century Netherlands. A complete investigation of certain issues and aspects, such as Spinoza's conception of human nature or the possible sources for his account of agreement and common notions, in relation to his

whole corpus still remains a desideratum for future Spinoza scholarship. I attempted to show, however, that Spinoza was not the kind of intellectualistic and isolated figure as is often believed in Spinoza scholarship.

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Dottorato di ricerca in Filosofia

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Ciclo 34°

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L'estratto va firmato e rilegato come ultimo foglio della tesi.

Studente: Omar Del Nonno matricola: 956459

Dottorato: Filosofia e Scienze della Formazione

Ciclo: 34°

Titolo della tesi¹ : *Ordo et connexio rerum*: Metaphysical Cosmology, Orders of Ideas and the Problem of Freedom in Spinoza's Thought.

Abstract: Il mio progetto di ricerca tratta di tre aspetti connessi con la questione dell'ordine e la connessione delle cose nel pensiero di Spinoza. I tre interconnessi aspetti sono: 1) L'ordine della natura e la struttura dell'universo; 2) L'ordine e connessione delle idee nella teoria della mente spinoziana; 3) Il rapporto tra natura umana e pratiche quotidiane nella concezione di libertà. L'obiettivo della tesi è quello di offrire un'interpretazione del pensiero spinoziano diversa da quella di un intellettualismo etico in cui le esperienze e pratiche quotidiane non giocano alcun ruolo nello sviluppo della libertà. Attraverso un'analisi dettagliata e cronologica delle opere di Spinoza si metteranno in luce gli aspetti di continuità e discontinuità che riguardano l'ordine e la connessione delle cose in tutta la natura, tra l'uomo e l'universo e infine tra esseri umani. Da un lato, ciò permette di valutare la ricezione di Spinoza di specifici dibattiti metafisici, teologici e scientifici nei Paesi Bassi del XVII secolo. Da un altro lato, la mia ricerca si focalizza sull'influenza di fonti finora largamente trascurate, come Bacone, su specifici aspetti del pensiero di Spinoza.

Abstract in English: My dissertation focuses on three interconnected aspects concerning the issue of the order and connection of things in Spinoza's thought. These three aspects are: 1) The order of nature and the structure of the universe; 2) the different kinds and orders of ideas in Spinoza's theory of mind; 3) the relationship between human nature and daily praxis for developing human freedom. My aim is to provide an interpretation of Spinoza's thought which departs from that of an ethical intellectualism in which experiences and habits do not play any role to achieve an higher degree of freedom. Through an in-dept and chronological analysis of Spinoza's works I shed light on the continuities and discontinuities concerning the relationship among things in nature, that between human beings and other things and, finally, among human beings. On the one hand, this enables to investigate Spinoza's reception of specific metaphysical, theological and scientific problems within the political and cultural context of the Seventeenth-Century Netherlands. On the other hand, I focus on the influence of as so far neglected sources, such as Bacon, on Spinoza's thought.

Firma dello studente



¹ Il titolo deve essere quello definitivo, uguale a quello che risulta stampato sulla copertina dell'elaborato consegnato.