

## *Introduction*

We must begin with two convictions prevalent in Western thought and old as philosophy itself, one that concerns us as cognitive beings, another the nature of reality itself. To take the better-known first: in geometry, the scientifically oriented human mind has found its apogee of clarity, lucidity, and certainty. Through the tumults that gave birth to the modern era, the status of geometry remained strong: nature itself was seen, to an increasing degree, in its terms. There is perhaps no more striking indication of this than the memorable passage in Galileo's *The Assayer* of 1623:

Philosophy is written in this all-encompassing book that is constantly open before our eyes, that is the universe; but it cannot be understood unless one first learns to understand the language and knows the characters in which it is written. *It is written in mathematical language, and its characters are triangles, circles, and other geometrical figures; without these it is humanly impossible to understand a word of it, and one wanders around pointlessly in a dark labyrinth.* (EG, p. 183, emphasis added)

Only geometry is thus able to capture the very texture of nature: the universe is written with its characters. This spirit finds its way to the thought of Benedict de Spinoza (1632–77), who in his masterpiece, the *Ethics*, claims that however profound and intricate a question, it can be answered, but only after realizing a fundamental truth:

So they [men] maintained it as certain that the judgments of the Gods far surpass man's grasp. This alone, of course, would have caused the truth to be hidden from the human race to eternity, if Mathematics, which is concerned not with ends, but *only with the essences and properties of figures*, had not shown men another standard of truth. (Iapp; C, p. 441; G II, p. 79, emphasis added)

That the philosopher renowned for expressing his ideas in geometrical order has a high regard for mathematics is of course only what we should expect; but it should be appreciated that here geometry is *not* conceived of as a method or manner of exposition. Rather, it is the branch that has revealed

*the inner make-up of things.* This idea manifests itself in various ways in Spinoza's thought, and forms one of the recurring themes of this study.

The other conviction, less often acknowledged but still extremely influential, finds its expression in Plato's *Sophist*, whose Eleatic Stranger suggests that

anything has real being that is so constituted as to possess any sort of power [*dunamin*] either to affect anything else or to be affected, in however small a degree, by the most insignificant agent, though it be only once. *I am proposing as a mark to distinguish real things that they are nothing but power [dunamis].* (*Sophist* 247d–e, emphasis added)<sup>1</sup>

In other words, real or actual existence requires causal power; having no effects implies non-existence. Much of the ensuing dominant Aristotelian-scholastic metaphysics takes the linkage between existence and power as given: no natural agent is without its causal powers. Thus it should not be particularly surprising that in Spinoza we find a thinker who not only equates God-or-Nature's essence with power (1p34) but one who argues that as expressions of God's power, the innermost nature of temporal existents is striving power – *conatus* – to persevere in being (3p6–p7).

That geometry is important for Spinoza and that the doctrine of finite things as striving entities is the basis of his theory of human temporal existence are, I take it, beyond controversy. But the unique way in which Spinoza combines the two traditional convictions results in something extremely significant, and something that forms the subject matter of this study, namely, an ontology on which is based a specific view of human individuality and agency. I thus want to develop a unifying overall interpretation of Spinoza's metaphysical thought with a definite centre of gravity: the idea that on the pages of Spinoza's main work and underpinning his ethics proper there is – deeply integrated but still by no means concealed – what may be called *a geometry of power*. The epithet is meant to capture what this study defends above all: *each and every genuine thing is an entity of power endowed with an internal structure akin to that of geometrical objects*. Based on this, Spinoza aspires to offer us a theory of existence – human and non-human alike – as a dynamic affair, but one that takes place with the same kind of necessity and intelligibility that pertain to geometry. It is a sign of challenges to come in advancing an approach of this kind that the two traditional convictions seem so uneasily combinable; after all, neither power nor change pertains to geometrical objects. But I believe it is the interpretative path to be taken, and one that leads us to a philosophy designed to revolutionize not only the

<sup>1</sup> Translation by F. M. Cornford.

view we have of the world as a whole but also our understanding of human existence and happiness.

As suggested by the passage of *The Assayer*, Spinoza's philosophical revolution has its roots in the upheavals of the natural sciences. The rupture with the tradition is considerable: gone are genera and species, substantial and accidental forms, different kinds of change and so on; instead, natural things are seen as mathematical entities concretized – impenetrable and in motion, but nevertheless geometrical figures by their very nature. Given the new 'mathematized' view's economy and the ease of understanding the world it promised, it is not particularly difficult to see why a mind yearning for a systematic grasp of things would find it attractive. Two of Spinoza's immediate predecessors, Descartes and Hobbes, certainly felt that attraction; and turning to Spinoza's younger contemporaries, consider the following statement by Newton in *De Gravitatione*:

[S]paces are everywhere contiguous to spaces, and extension is everywhere placed next to extension, and so there are everywhere common boundaries of contiguous parts; that is, there are everywhere surfaces acting as boundaries to solids on this side and that; and everywhere lines in which parts of the surfaces touch each other; and everywhere points in which the continuous parts of lines are joined together. And hence *there are everywhere all kinds of figures, everywhere spheres, cubes, triangles, straight lines, everywhere circular, elliptical, parabolical, and all other kinds of figures*, and those of all shapes and sizes, even though they are not disclosed to sight. (*PW*, p. 22, emphasis added)<sup>2</sup>

But Spinoza takes the crucial step further: he is convinced that everything, thus *also the realm of the mental*, is endowed with *the precisely same kind of structure and intelligibility* we can find in the material world.

The very first step in discerning the metaphysical basis of Spinoza's theory of human existence is to examine this general view of the structure of the nature of things. The fact that in the *Ethics* Spinoza leaves many of these basic aspects of his thought unexplicated increases the difficulty involved in carrying out this task. However, my goal is to show that a careful reading of his earlier work such as *Treatise on the Emendation of the Intellect* and *Metaphysical Thoughts* can shed crucial light on many better-known tenets of Spinoza's

<sup>2</sup> The date of this posthumously published manuscript is a matter of controversy. It has been suggested that the text would originate already from the 1660s; for Andrew Janiak's survey of the different views on the issue, see *PW*, p. xviii. Mordechai Feingold (2004, p. 194) claims that 'the document in its present form is of late composition, albeit incorporating earlier material' and estimates that the work's 'origins might be more precisely dated to around 1671, and to a course of lectures Newton delivered at Cambridge against Descartes' mechanics and Henry More's hydrostatics' (p. 26). So, interestingly, it seems to have been a work in progress when Spinoza was writing his *Ethics*.

masterpiece. Here I will approach Spinoza not so much as a naturalist influenced by the advances in the mechanical sciences but as a rationalist metaphysician inspired by geometry. In fact, the opening chapter of this study argues that from early on, Spinoza endorses and develops a general theory of *the being of essences* which aims at explicating the very factors that determine the form that existence takes, and ends with the conviction that all genuine things are endowed with an internal structure not unlike the one we find in geometrical objects. The result is a view that underpins the all-important theory of the two aspects of reality, eternal and temporal, of the *Ethics*. I argue that in Spinoza's rationalism, the natures of things and what takes place in temporality are determined from eternity.

Discerning Spinoza's theory on the foundational but intangible ontological features of the world allows us to begin the journey towards a theory concerning actual 'flesh and blood' entities of temporal existence to which pertain dynamics in the most salient sense. As noted, real existence is, traditionally as well as for Spinoza, causally efficacious existence (this in fact is what makes the introduction of the concept of power – a causal notion – legitimate and useful). An analysis of causation is thus required of any overall reading of Spinoza's metaphysics, and especially of one that underscores the dynamism of his system. As [Chapter 2](#) shows, it is precisely here – importantly for my main thesis – that we find Spinoza's geometrical tendencies at work: his doctrine of causation is *derived from* the geometry-inspired doctrine of being. A particular conception of essentialism is the philosophical centre of gravity: just as the structure of being is determined by the eternal natures of things, effects follow from the essences of things.

With all this in place, I turn to the focal concept of this study, that of power. [Chapter 3](#) starts with a contextual discussion explicating how the concept operated and came to be questioned in metaphysics before Spinoza; this together with the already acquired understanding of the essentialist model of causation allows us to discern the concept's role in Spinoza's thought as well as his reasons for including it in his system. Clearly, Spinoza thinks that within his metaphysical framework, the concept of power can be assigned not only a transparent meaning but also a proper task in a theory concerning the ethically relevant features of our causal status. From the opening part of the *Ethics*, Spinoza makes the distinction between *power to exist* and *power to act*; accordingly, [Chapter 3](#) offers an analysis of power, existence, and activity. First, it is shown how power figures in the existence of all the different types of Spinozistic entities: substances, modes, and attributes. After this, an examination of *power of acting* reveals it to be a particularly prominent feature of the causal machinery that later proves to

be constantly at work in the vicissitudes of finite temporal existence. Moreover, given that the chapter shows things to be endowed with power (whether to exist or to act) in virtue of their essences, it is warranted to speak of Spinoza's *dynamic essentialism*.

Elaborating a workable metaphysic is of course a valuable undertaking in its own right, but Spinoza wants to accomplish something more with it: an adequate account of actual (i.e. temporal) human existence. In it, the notion of *conatus* emerges as the key feature: it is through the doctrine of our essential *power as striving to persevere in being* that Spinoza's geometry of power becomes a fully developed doctrine of human existence. The scientific revolution and its groundbreaking conception of motion have an impact on how Spinoza conceives the essential power of things to manifest itself in actual existence, and [Chapter 4](#) starts by discussing the historical roots of the *conatus* doctrine as well as its place in Spinoza's metaphysical framework. The derivation of the doctrine has been severely criticized, and the apparent errors in it have been claimed to have devastating effects on the overall cogency of Spinoza's system. The main task of this chapter is to take up this issue and show that provided that Spinoza's argument is carefully reconstructed by taking properly into account his geometry-laden theory of power, the reasoning in it turns out to be, in fact, basically valid.

The reconstruction of Spinoza's argument – if not the ontological considerations of [Chapter 1](#) – makes it increasingly clear that we should rethink what Spinoza means by the 'being' in which we strive to persevere. This leads to the subsequent discussion of the nature of the *conatus* doctrine, and [Chapter 5](#) opens by outlining the two main interpretative positions prevailing in the scholarship, the inertial and the teleological. Despite the indisputable merits of these two interpretative traditions, it is argued that Spinoza's views on these matters have not thus far been satisfactorily discerned. The rest of the chapter elaborates a new interpretative stand along the lines of geometrical dynamism; on this view, *what we strive for is the unhindered realization of our essence – to produce being as determined by what is innermost to us*. This, in turn, requires reconsidering Spinoza's view of human agency: it is a theory according to which our actions have directions without ends.

The [final chapter](#) draws on the preceding analyses to offer a fuller picture of Spinoza's thought about human existence, or what I would call his geometrical dynamics of individuality. What individuates any finite individual – makes it the individual it is – is a specific kind of power: a striving or a resilient disposition to bring about effects derivable from a definition expressing a unique eternal essence. As long as there is such a striving, even as weak or severely opposed, the individual persists in actuality. Our limitedness implies

constant passivity, and it is a central part of Spinoza's philosophical psychology to map out the most relevant ways in which human beings are passively constituted. Spinoza firmly believes a project that endeavours to provide a veritable geometry of emotions to be feasible; this calls for an examination revealing his grounds for thinking that any entity with a specific nature is determined, in particular circumstances, to everything it also passively does with the kind of necessity characteristic of geometrical objects. Finally, to offer a more comprehensive interpretation, the chapter rounds off by presenting some of the major attribute-specific ramifications of Spinoza's dynamistic metaphysics: the attribute of extension can be seen as a continuous spatial field of power in which there are particular bodies as patterns of intensifications; under the attribute of thought, ideas are formed by power of affirmation – a power which, when used freely, can only lead to understanding, that is, to forming adequate ideas.

Methodologically my approach can be described as follows. With respect to each aspect of Spinoza's geometry of power, I will attempt to find its proper historical context, situate it in that context, and then, in light of this understanding and of my understanding of what Spinoza elsewhere says, engage in detailed conceptual analysis to find out how Spinoza's system works. I know of no good reason not to see contextualization and conceptual analysis as mutually supportive: being familiar with the relevant context is often a precondition for knowing what an author is talking about and practically always useful for discerning the meaning of the terms he or she uses; successful analyses, in turn, will result in a better understanding of the philosophical context which is partly constituted by the author's works. I believe that this kind of enquiry can offer us new insights into pertinent philosophical questions.

In Spinoza's case, taking a look at Descartes's philosophy is almost always in order; with regard to some questions, it is also enough, but usually one has to dig more deeply and explicate how, for example, Hobbes or late scholastics viewed things. Of Spinoza's writings I will focus on the *Ethics*, but whenever I think an earlier work or a letter is helpful, as is especially the case with regard to some metaphysical issues discussed in the beginning, I will take it into account. Fortunately, as already mentioned, Spinoza's thought is and has been the subject of lively discussion during the last decades, and I aim to make my study as well informed as possible, doing my best to bring forward the secondary literature relevant to each topic. There is no scholar whose own time and philosophical heritage would not have a major impact on his or her approach and the sort of questions he or she considers worth asking; for me, the Anglo-American early modern scholarship flourishing today forms

the most immediate background against which, and in dialogue with, I develop my own views; but I will also take the French Spinoza scholars into account and strive to make connections between them and the writers belonging to the Anglo-American tradition.

The metaphysical nature of the discussed topics, Spinoza's rationalistic approach, and my endeavour to discern, through my analysis, systematic linkages between the concepts Spinoza employs may, at times, lead to passages of a rather abstract nature. Thus, to make my text more accessible I will illustrate the discussed issues with some concrete examples and analogies to offer us a firmer grasp of them. However, here the revisionary nature of Spinoza's philosophy should be kept in mind: he would insist that if sound philosophical principles and proofs so demand, we should be ready to revise our beliefs, even those widely held to be most natural (for instance that there are innumerable many substances, or that our will is free). It seems to me that we should give any piece of philosophy a fair chance of convincing us, and this applies in particular to texts from which we have a considerable amount of historical distance, such as the *Ethics*, strange as they often first appear to our contemporary eye. Otherwise we run the risk of dogmatically demoting them to the status of historical curiosities, which would keep us from learning from them. And indeed, I believe that the dynamistic view of the nature of our individuality, agency, and happiness that this study aims at explicating is highly compelling, and merits serious attention.