

The Book of [God, or] Nature: Spinoza's *Ethics* in Galilean Context
Joseph Vitti

...But my argument is this: in Nature nothing happens which can be attributed to its defectiveness, for Nature is always the same...I shall, then, treat of the nature and strength of the emotions, and the mind's power over them, by the same method as I have used in treating of God and the mind, and I shall consider human action and appetites just as if it were an investigation into lines, planes, or bodies.

-Spinoza, *Ethics* (Part III Preface)

It was common in the early Modern Period to describe the acquisition of knowledge as the reading of the two God-given books: the Book of Scripture and the Book of Nature, which aligned more or less with revealed theology and natural philosophy, respectively. In spite of the diversity of opinions on the relation between the two books, the authority of the former and subsequent deference of the latter was a given for most theologians and philosophers. In the 17th century, however, the advancement of the Scientific Revolution and its interaction with the Church brought the *status quo* into question. The Galileo affair exemplified this crisis with the questions it provoked: how to read the two books in light of the possibility of contradiction? Do the two books teach about separate domains of knowledge, or is a unified truth attainable? In short: how to render the two books compatible?

In the Netherlands, where the “new science” and religious heterodoxy thrived, responses to the Galileo affair – and, more generally, the question of the interplay between the two books – were varied. Consistent with most of Europe, though, the general trend was to affirm the continued authority of the Book of Scripture. Along this line of ideology, some went so far as to declare the complete deference of the Book of Nature to revealed theology, such as Gisbertus Voetius.[1] Inspired by Calvinist literalism, Voetius led the Dutch branch of the so-called Mosaic physicists in the derivation of a science entirely from Biblical principles. This line of thought sought the rewriting of the Book of Nature within the Book of Scripture.

The other extreme – to rewrite the Book of Scripture from the Book of Nature – was a much less palatable option, amounting to blatant heresy. For it to be seriously undertaken by any intellectual of influence would require indifference to the most basic, universally accepted theistic orthodoxy of the time. This undertaking found outlet, however, in Spinoza, who had already been excommunicated from the Jewish community at the age of 14,[2] and who subsequently pursued a new philosophy influenced by a scientifically informed sense of reverence for the natural world without stringent textual religious constraints. In his *magnum opus*, the *Ethics*, Spinoza's intent is to establish a natural religion[3] derived from axiomatic observations of nature and written in rigorous scientific format (the *ordo geometrico* employed by Euclid). No where does Spinoza rely on evidence from the traditional books of scripture to prove his arguments (though he does occasionally supplement his propositions with scriptural passages to affirm their validity[4]). Like the Mosaic physicists, Spinoza insisted on one unified book of science and theology. but for Spinoza, reason, and not revelation, took precedence. Thus he sought to write a Book of Nature that would include the “path to salvation”[5] as dictates of nature itself.

Spinoza's “God, or Nature,” which equates the realm of the divine with the realm of the natural, lends itself to many interpretations that all diverge markedly from tradition. Perhaps due to the anachronistic character of his thought, Spinoza is seldom considered as a figure in the development of the traditional book metaphors that were ubiquitous in his time. When he is placed in this context, he is portrayed in opposition to the metaphor, working outside of it. According to Eric Jorink, for instance, Spinoza's interpretation of God as indissociable from nature “virtually destroyed the traditional Dutch ideas” of the Book of Nature.[6] While Spinoza's thought is indeed radically at odds with contemporary mainstream positions on the two books, he can nonetheless be seen as working within and innovating a tradition. For in his

Ethics, Spinoza is pursuing the establishment of one unified Book of Nature and also of 'true religion' – a Book of *Deus, sive Natura*, informed by the *scienza nuova* of Galileo.

The Two Books

The notion that divinity could be 'read' in the natural world – the metaphor of the “Book of Nature” - was most famously publicized by Galileo himself. Accused by the Church of maintaining heliocentrism, Galileo retorted that the Book of Scripture had to be read metaphorically to be rendered compatible with discoveries in astronomy and, more generally, natural science. Galileo was promoting a rhetoric that had already gained prominence: the Book of Nature was no less a divine gift to humanity than the Book of Scripture, and it was through both that man came to know the divine author.

The usage of the book metaphor is to be found in religious, scientific as well as literary works as early as the Middle Ages.[7] In its early stages, however, it was accompanied by a host of other images: nature was likened variously to a hierarchical “chain of being”, a mirror that reflected the shared nature of its viewer, a machine of superior functionality, and even a musical instrument.[8] Common to these analogies is the fundamental conviction that God's greatness is reflected in the structure of nature, but they differ from the book metaphor in that they deemphasize the accessibility and comprehensibility of this greatness to its observers.[9] It was not until the late 16th and 17th centuries that the book metaphor was established as the predominant religious conception of nature.

This rise to prominence was spurred by the development of the 'new science' associated with Kepler, Galileo and Newton, to name a few. The empirical approach to natural philosophy was only explicitly antithetical to religious sentiment and institution in a few cases (notably the trial of Galileo, of course), but it still created a tension between the acceleratingly capable powers of human inquiry and the mystique of divine creation that was slowly becoming unraveled. The metaphor of the two books provided a means of diffusing this tension. A book,

unlike the other images used, carried with it a form of authority: it could be read and knowledge could be gleaned from it. Nature thus became a second means of accessing the divine, which fell gracefully into parallel with the Book of Scripture.

Moreover, the advent of the two books metaphor allowed writers to comment on the increasingly delicate relation between natural theology and revelatory theology. The predominant attitude towards the division of labor between the two books suggested the deference of science to scripture. Francis Bacon, for example, wrote in 1605 that first there was “the scriptures, revealing the will of God, and then the creatures expressing his power; whereof the latter is a key unto the former.”[10] From a historiographical viewpoint, the book metaphor was ideal for chronicling the changing of attitudes towards natural science, religion, and their interaction.

Galileo and the Metaphor: Science and the Language of Mathematics

In the instance of Galileo we see a particularly incendiary case of such interaction, accompanied by a salient usage of the book metaphor. Attacked for his endorsement of Copernican heliocentrism in his 1610 *Siderius Nuncius*, he advanced the compatibility of the two books in his letter to the Grand Duchess Christina of Tuscany in 1615. Here, Galileo was defending not only his reading of the Book of Nature – that is, his scientific conclusions proper – but also the status of the Book of Nature as a methodologically legitimate source of truth, in spite of apparent contradiction with scripture. Galileo argues that God is “not any less excellently revealed in nature's action” than in revelation, citing Tertullian's precedent on the matter: “We conclude that God is known first through Nature, and then again, more particularly, by doctrine, by Nature in his works, and by doctrine in His revealed word.”[11]

But Galileo's most significant contribution to the metaphoric tradition is to be found in his 1623 *The Assayer*, a treatise ostensibly on comets. The substantial scientific claim that Galileo here makes – that comets are not actually existent, but only plays of light – was shortly

thereafter disproved, but more importantly the work also contains some of Galileo's most articulate opinions on the methodology of physics. He emphasizes an empirical approach to science, reflecting to the decline of the less analytical techniques of Aristotelianism. It is this approach, Galileo argues, that allows us to read the Book of Nature, in its distinctive language:

“Philosophy is written in this grand book, the universe, which stands continually open to our gaze. But the book cannot be understood unless one first learns to comprehend the language and read the letters in which it is composed. It is written in the language of mathematics, and its characters are triangles, circle and other geometrical figures without which it is humanly impossible to understand a single word of it.”[12]

The context in which Galileo is writing here is instructive: *The Assayer* was a strictly scientific treatise, divorced from his interactions with the Church. By taking the book metaphor out of religious context, Galileo calls for a mathematic approach to natural inquiry, unfettered by scriptural constraints.

In sum, the contribution that Galileo made to the book metaphor's tradition is twofold. First, while he maintained a cautious acceptance of the teachings of the Book of Scripture out of necessity, Galileo suggested the independence of the Book of Nature by employing the metaphor in a scientific context. The Scientific Revolution had already produced a substantial amount of work that reflected the autonomy of scientific inquiry, but Galileo was the first to make definitive the connection between the new science and the Book of Nature, which had historically used in conjunction with religious language. Galileo expresses the same point of view for a more religious audience in his *Dialogues Concerning the Chief Two World Systems*: “He who looks the higher is the more highly distinguished, and turning over the great Book of Nature (which is the proper object of philosophy) is the way to elevate one's gaze.”[13]

Secondly, Galileo suggested that the book was written and could only be read in the language of mathematics. In so saying, Galileo was denying the fictionalist science as had been prescribed to him by Barberini's insistence on "hypothetical mathematical discussion;" math for Galileo was not just a useful instrument but a real fact about the structure of nature itself. Prior to the language of mathematics, it had been suggested that the Book of Nature was written in the language of "signatures," according to which nature's purpose could be discerned from its appearance. The walnut was believed to be a paradigmatic instance of a signature: because it resembled the human brain, it was used as medicine for mental illnesses.[14] By Galileo's time the "language of signatures" was outdated, and the Book of Nature was open to a new method of interpretation, which physicists and astronomers provided and Galileo made explicit. On the influence of this new methodology of science, historian A. Wolf recounts, "the mechanical tendency in modern science owed its vogue, in large measure, to Galilei, the father of modern dynamics. He insisted on explaining physical phenomena by means of primary or mechanical qualities, that is, the geometrical qualities and motion." [15]

Spinoza and Scientific Ideology

Though Galileo and Spinoza almost certainly never met, the ideological influence of the former on the latter is apparent in his works. The Spinoza scholar Herman De Dijn has suggested that Spinoza may have considered himself the 'new Galileo,' seeking to emulate the same rigorous mathematic foundationalism for the world of ethics and metaphysics.[16] Rudavsky echoes De Dijn's confidence that Spinoza knew of and was influenced by Galileo: "Spinoza surely knew of Galileo's works in mathematics and optics, as evidenced in his letters." [17] Indeed, Spinoza's correspondence reveals him to be very well connected to the intellectual currents of the time, and his occupation as a lens grinder reinforced his interest in optics and in the concurrent developments in the telescope. He had a side interest in astronomy, and was well acquainted with astronomic research at the time, including comets.[18] He also formed a

friendship with Joseph Solomon Delmedigo, a student of “Rabbi Galileo” who visited Amsterdam in 1626. Spinoza retained a copy of his *Sefer Elim*, an astronomical treatise that makes many references to Galileo's works of the time.[19] Spinoza was also kept well in touch with the scientific trends of the era through his correspondence with Henry Oldenburg, the secretary of the London Royal Society, and was personal acquaintances with Tschirnhaus and Leibniz.

Scientific culture in the Netherlands in the 17th century laid heavy emphasis on mechanics and mathematics. It has been called a focal point of Scientific Revolution ideology, where the “mechanisation of the world picture” began.[20] Very much present in Dutch intellectual trends of the time was the notion that the new science was the means with which to discern an increasingly lawlike natural world. This intellectual current was aided by the lack of religious centralization: while Calvinism was the country's only officially approved domination, the Netherlands – in particular, Amsterdam, where Spinoza lived for most of his adult life – was a hub of European heterodoxy.

The Book of Nature in the Netherlands

Against this intellectual climate, the metaphor of the Book of Nature flourished. The Book of Scripture, still held in paramount esteem, was not institutionalized: the Netherlands lacked a national church, allowing personal interpretation of scripture at a higher degree than most all of early modern Europe. Religious sentiment thrived, but exhibited much greater diversity, unified by the accelerating scientific interest in the natural world. This was accompanied by the book metaphor in full force. Jorink describes the ubiquity of the metaphor as a “*basso continuo*” on the “hymn of the order of nature” in the 17th century Netherlands.[21]

The underlying background of Dutch Calvinism, with its emphasis on natural theology, ensured the longevity of the book metaphor. The Belgic Confession, drawn up in 1561 and approved of by John Calvin himself, formed the basis of what codified dogma there existed in

the Netherlands. Therein, the authors give one of the most typical restatements of the two books doctrine: “We know Him by two means: first, by the creation, preservation and government of the universe; which is before our eyes as a most elegant book...secondly, He makes Himself more clearly and fully known to us by His holy and divine Word.”[22] Against this background, instances of the metaphor's usage in the Netherlands abound, leading Jorink to suggest that it found its peak in this historical context.[23] One particularly salient example was the translation of a popular French apologetic, *Traité de la vérité de la religion chrétienne*, written by Phillippe Mornay in 1581: its title in translation was *De Bybel der Natuure*.

The prominence of the Book of Nature, however, was generally counterbalanced by the higher esteem given to the Book of Scripture in the Netherlands as much as elsewhere. As far as divine knowledge went, the ultimate source was revelation; this could be supplemented by contemplation of creation but not replaced. As the Dutch poet Jakob Cats put it, of the two books, “the first is His holy Word, the second as His Works. The first teaches us His Will, the latter His power.”[24] To replace the Book of Scripture with the Book of Nature would be to deny God's legislative will – which is exactly what Spinoza proposed.[25]

Spinoza's Book of Nature: The *Ethics* and the Geometric Method

Published posthumously in 1677, Spinoza's *Ethics* is a rigorous and extensive work that lays out the entirety of Spinoza's philosophical system comprehensively. Spinoza begins with his conception of “God, or Nature” (*Deus sive Natura*), which has been variously interpreted as an attempt to divinize nature and as an attempt to naturalize God. For Spinoza, however, the two are one and the same – God *is* nature, exemplified in her perfect and infinite laws, just as much as nature is God. Spinoza sought to unify the two concepts, and, accordingly, to write one unified Book, that would both be indicative of the laws of nature and would reveal to its humans the moral imperatives that follow therefrom.

This is a revolutionary position, one that would not find much favor in its immediate reception, and Spinoza was aware. He wrote it in Latin, most likely to discourage extensive readership (though also to carry on in the academic tradition of substance-based philosophy), and he expressed hesitation in his correspondence to publish it.[26] Furthermore, the Latin inscription on his signet ring – *caute* – suggests a humility of opinion that may seem at odd with the bold unorthodoxy of his philosophy.

What is especially puzzling about the *Ethics*, however, is that many, if not all, of Spinoza's conclusions contained therein are presented nonaxiomatically in his *Short Treatise on God, Man and Well-Being*, written between 1656 and 1660. Like the *Ethics*, this work spans the entirety of Spinoza's philosophical system: the nature of God, the structure of the human mind and of knowledge, definitions of the human emotions, explication of how man is 'enslaved' by his emotions, and the path of rationality to overcome that enslavement and achieve blessedness. If, indeed, Spinoza had already mapped out his philosophical convictions in a readily comprehensible and philosophically traditional manner, why did he feel the need to explicate the same convictions using the geometric method (*ordo geometrico*) of Euclid that he employs in the *Ethics*?

Spinoza's Development of Methodology

Between the years of 1660 and 1663, Spinoza moved from Amsterdam to Rhynsburg. It was during this period that he first met and subsequently began his correspondence with Henry Oldenburg of the English Royal Society, an acquaintance who would prove to be influential with regards to Spinoza's methodology. In his first letter, Oldenburg expressed skepticism and curiosity towards the radical ideas that Spinoza had presented him in their brief time together. While Spinoza was already reputed within philosophical circles at the time, Oldenburg more than any other figure in Spinoza's sphere represented the rigor of the new science, and often sent Spinoza scientific works, particularly that of Robert Boyle. With this sudden pressure to

elaborate on his thought and to render it palatable for an increasingly scientific audience, Spinoza entered the formative period of his methodology. In his first response to Oldenburg, Spinoza wrote that “in order to prove these points clearly and briefly I could think of nothing better than to submit for your consideration such proofs after the manner of Geometry.”[27] He enclosed with the letter four geometrically ordered propositions that he later included in the appendix to his *Short Treatise* and which formed the beginning of Part I of the *Ethics*. During his years in Rhynsburg he developed this project further, producing about twenty propositions in the *ordo geometrico* that formed the *Short Treatise's* appendix and, again, the foundations of the *Ethics*.

Over the next few years, Spinoza continued working on the *Ethics*, and on the side produced his *Principles of Cartesian Philosophy*, which presented much of Descartes' recent philosophy reworked into the *ordo geometrico*. Most crucially, however, he wrote his *Tractatus Theologico-Politicus*, a preemptive defense of his *Ethics* that offered justification for many of his more radical viewpoints – particularly his general disregard for Scripture, which he insisted must be viewed as a historical document within a historical context. In the TTP, Spinoza makes multiple claims to the necessity of “bringing theology under reason's domain, and showing that her authority has no weight unless natural reason be at the back of it.”[28] This, in brief, is the project of the *Ethics*: the establishment of a reason-based, mathematical religion that accorded with the new science that such influential acquaintances as Oldenburg had imparted to him. While Spinoza rejected the alleged revelation that had inspired traditional scripture, he still embraced its content and expressed conviction that “the moral doctrines which are also contained in the Bible...may be demonstrated from received axioms.”[29] Spinoza held that scripture's aim was to teach obedience[30], but that the objects of this obedience didn't require revelation for humans to grasp them; rather, they could be derived as the logical consequents of the “dictates of reason,”[31] as moral commands to which we are bound by our very nature as rational

beings.[32] In this way, Spinoza extracts from theology the same basic moral principles[33] and rewrites them as not merely arbitrary dictates of an authoritative divinity, but rather as part of nature itself. As Harrison put it, “revelation was necessary only to reinforce the truths of natural religion, and to demonstrate by another medium what was already conspicuous to those who would look.”[34]

Thus it is that in the *TTP* Spinoza lays down the groundwork for the *Ethics*. He proposes a new religion based on reason and argues against the “superstition” that he perceived in religiosity of his time. Proponents of such religion, according to Spinoza, unfairly dismiss reason, and subscribe to the view that God “has written his decrees not in man's mind but in the entrails of beasts, or that by divine inspiration and instigation these decrees are foretold by fools, madmen or birds”[35] For Spinoza, the laws of Nature themselves are the laws of God, as implied by the deliberate phrasing “God, or Nature.” Spinoza insists on one unified truth: moral laws should be explicated in the same way that physical laws are (indeed, Spinoza includes a brief and self-admittedly speculative set of physical postulates in Part II to further his conception of the human mind[36]). This does not mean doing away with the Book of God, however; merely rewriting it in its proper language of mathematics:

“I admit that those who believe that theology and philosophy are mutually contradictory, and that therefore either one or the other must be thrust from its throne – I admit, I say that such persons are not unreasonable in attempting to put theology on a firm basis, and to demonstrate its truth mathematically.”[37]

Conclusion

While there was no direct communication between Spinoza and Galileo, the two shared the conviction that the Book of Nature was open to those who read it, and that it was written in the language explicated by the deductive *scienza nuova*. As Rudavsky puts it, Spinoza adopted

the simple Galilean methodology that “for a scientific thesis to be accepted, it must be either an evident first principle or else demonstrable from these principles,”[38] and carried it to its logical extremes in the theological-philosophical sphere. The *Ethics* was the first purely philosophical to present its conclusions consistently and completely in axiomatic manner, though the style was emulated shortly thereafter by Newton in his 1687 *Mathematical Principles of Natural Philosophy*. In time, Newton came to reject Spinoza's metaphysics as overly speculative, a criticism that Hegel would later reprise. As science came further of age into the late 17th and 18th century, it became clear that metaphysical inquiry was ill-fitted for the geometric method. Owing both to this and to the religiously subversive nature of Spinoza's philosophy, the Book of Scripture resisted the footing that Spinoza proposed for its moral contents in the Book of Nature. Nonetheless, Spinoza's *Ethics* demonstrates his conviction that the Book of Nature, explicated mathematically, could provide the basis for attaining salvation, and remains a seminal work in the intersection between faith and reason in the 17th century.

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[1] c.f. Eric Jorink, "Reading the Book of Nature in the Seventeenth Century Dutch Republic," *The Book of Nature in Early Modern and Modern History*, eds. Klaas Van Berkel and Arjo Vanderjagt (Paris: Peeters, 2006), p 52-54.

[2] While it has been historically assumed that Spinoza was excommunicated based on his atypical religiosity, recent evidence suggests that the *herem* may have actually been on strictly legal grounds, as Spinoza avoided inheriting his father's debts in the Jewish community by appeal to the Dutch civil courts. See Gullan-Whur, Margaret, *Within Reason: A Life of Spinoza* (London: Jonathan Cape, 1998), 63-64.

[3] Upon concluding Part IV, for instance, in which Spinoza lays out the particular moral dictates of reason that he prescribes, that they form the basis of "the true way of life and religion" to attain blessedness (*Ethics*, Part IV Proposition 73 Scholium).

[4] See, for instance, Spinoza's allusion to Ecclesiastes in Part IV, Proposition 17 Scholium. Upon completing his arguments for the necessity of humility, repentance and reverence, Spinoza remarks that "it is not surprising that the prophets, who had regard for the good of the whole community...have been so zealous in commending [these virtues]" (Part IV, Proposition 54 Scholium).

[5] Spinoza states that "our salvation or blessedness or freedom consists in the constant and eternal love towards God" (Part V, Proposition 36 Scholium). This love towards God (*amor erga Deum*) is "bound to hold chief place in the mind" (Part V, Proposition 16).

[6] Jorink, 56. Jorink notes that while Spinoza challenged typical conceptions of the metaphor, usage thereof still continued well beyond Spinoza's death.

- [7] Alan of Lille, for example, likened creation to “a book and picture, [that] serves us as a mirror.” *De miseria mundi*, Vol I, p 288, cited in Harrison, Peter. “The 'Book of Nature' and Early Modern Science,” *The Book of Nature in Early Modern and Modern History*, ed. Klaas Van Berkel and Arjo Vanderjagt. (Paris: Peeters, 2006) p 5.
- [8] Peter Harrison, *The Bible, Protestantism and the Rise of Natural Science*. (Cambridge: Cambridge University Press, 1998), 44.
- [9] This train of thought has biblical origins: “Ever since the creation of the world, His eternal power and divine nature, invisible though they are, have been understood and seen through the things He has made.” (Romans 1:20)
- [10] Francis Bacon, *The Advancement of Learning*, I.vi.16, p 42, cited in Harrison, “The Book of Nature...” 8.
- [11] Galileo Galilei, “Letter to the Grand Duchess Christina,” Internet Modern History Sourcebook, <<http://www.fordham.edu/halsall/mod/galileo-tuscany.html>>, 5/6/09.
- [12] Galileo Galilei, *The Assayer*, in *Discoveries and Opinions of Galileo*, tr. Stillman Drake. (New York: Anchor, 1957), pp 237f.
- [13] Galileo Galilei, *Dialogue Concerning the Chief Two World Systems*, tr. Stillman Drake. <<http://www.law.umkc.edu/faculty/projects/ftrials/galileo/dialogue.html>>, 5/7/09.
- [14] Harrison, “The Book of Nature...,” 19-20.
- [15] A. Wolf (ed), *The Correspondence of Spinoza*. (New York: Kessinger, 2003), p 41.
- [16] See de Dijn, Herman. "Conceptions of Philosophical Method in Spinoza: Logica and *Mos Geometricus*," *The Review of Metaphysics*, September 1986, vol.XL,No.1, issue 157, pp 27-40.
- [17] Rudavsky, Tamar. “Galileo and Spinoza: Heroes, Heretics, and Hermeneutics.” *Journal of the History of Ideas*, Vol 62, No 4, October 2001, p 617.

- [18] cf. For example Letters XXIX, XXXIV in Wolf (ed.), *The Correspondence of Spinoza*.
- [19] Rudavsky, p 620.
- [20] cf. Dijksterhuis, Eduard Jan, *The Mechanisation of the World Picture*. (Princeton: Princeton University Press, 1985).
- [21] Jorink, p 50.
- [22] Bakhuizen van den Brink, *De Nederlandse Belijdenisgeschriften*, p 73, cited in Jorink, p 47.
- [23] For further examples, cf. Jorink, pp 45-49.
- [24] Cats, Jakob. *Alle de Wercken*, cited in *ibid.*, p 48.
- [25] Spinoza's characterization of God is extremely idiosyncratic and open to a wide range of interpretations (and misinterpretations). My aim here, however, is not an exposition of this sort, but merely to consider the significance of Spinoza's God as a product of his method. For more on Spinoza's conception of God, cf. *The Ethics* Part I, especially Proposition 15 Scholium and Proposition 33 Scholia 1 and 2, or else Seymour Feldman's introduction to the Hackett edition of the *Ethics* (Cambridge, 1992), pp 9-12.
- [26] cf. *Correspondence of Spinoza*, Letter 13.
- [27] *Correspondence of Spinoza*, II.
- [28] *TTP*, Ch 15, Sec 86.
- [29] *Ibid.*, Ch. 7, Sec. 14.
- [30] "Scriptures does not in any way inhibit reason, and has nothing to do with philosophy, each standing on its own footing...the object of knowledge by revelation is nothing other than obedience, and so it is completely distinct from natural knowledge in its purpose, its basis and method...neither should be regarded as ancillary to the other" (*TTP*, preface).

- [31] *cf. Ethics* Part IV Proposition 18 Scholium.
- [32] *Ethics*, Part IV Proposition 35.
- [33] In the Appendix to Part IV, Spinoza lists the ethical imperatives he deduces geometrically. These include, for instance, condemnation of extramarital intercourse and lust (XIX-XX).
- [34] Harrison, “*The Book of Nature...*”, p 11.
- [35] *TTP*, Preface.
- [36] This is Spinoza's “Little Physics,” the set of axioms, lemmata and postulates between Proposition 13 and 14.
- [37] *Ibid.*, Ch 15, Sec 83.
- [38] Rudavsky, p 611.