

DESCARTES' *DISCOURS* AS A PLAN FOR A UNIVERSAL SCIENCE

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ABSTRACT. My thesis is that Descartes wrote the *Discours* as a plan for a universal science, as he originally entitled it. I provide an interpretation of his letters that suggests that after Descartes began drafting his *Dioptrics*, he started developing a system that incorporated his early treatises from the 1630s: *Les Météores*, *Le Monde*, *L'Homme*, and his 1629 *Traité de métaphysique*. I argue against the mosaic and autobiographic interpretations that claim these were independent treatises or stages in Descartes' life. Rather, I hold that threat of condemnation concerning his heliocentric thesis resulted in him suppressing his larger project and, instead, he published a plan where he outlined his ongoing system of philosophy.

Keywords: Descartes, *Discours*, *Le Monde*, Gilbert Gadoffre, method, stoicism.

Before Gilbert Gadoffre's 1941 "Introduction," commentators presupposed that the *Discours* was a consistent preface¹ that was quickly drafted over five short months.² However, Gadoffre suggested that this presupposition was unjustified. First, he claimed that the preface contains an arbitrary, if not erratic, order of presentation with inherent inconsistencies (call this Gadoffre's problem). Second, he argued that the best explanation of this problem is that the *Discours*, like the *Essais*, was a presentation of various unconnected "specimens," a mosaic, of Descartes early natural philosophy (call this the mosaic interpretation). Gadoffre's first claim has been adopted by the literature as content that must be explained by any viable interpretation of the *Discours*.³

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¹ Gadoffre cited Cohen, Gilson, Gouhier, and Roth as his targets. Each of these commentators described Gadoffre's proposed inconsistencies. However, their response was to ignore the problem. See Gadoffre, Gilbert, "Introduction et remarques", in *René Descartes' Discours de la Méthode*, edited with introduction and remarks by Gilbert Gadoffre, Manchester, Editions de l'Université de Manchester, [1941] 1974.

² The view before Gadoffre was Descartes began his preface in November 1635 (AT I 592; CSMK III 50) and completed it in March 1636 (AT I 338-340; CSMK III 50-51).

³ See Ferdinand Alquié, *La Découverte métaphysique de l'homme chez Descartes*, Paris, Presses Universitaires de France, 1966; L.J. Beck, *The Method of Descartes: A Study of the Regulæ*, Oxford, Oxford University Press, 1952, pp. 3-4; Edwin Curley, "Cohérence ou incohérence du *Discours*", in

His explanation of the problem, on the other hand, his mosaic interpretation, is not the only available, or the most plausible, explanation. For this reason, I begin this essay with a description of Gadoffre's problem and then evaluate two popular explanations of it: the mosaic and autobiographic interpretations. I suggest that each successfully explains the problem. However, when I turn to Descartes' intent in publishing the *Discours* expressed in his letters, seeking its fundamental identity and purpose, I diagnose a severe weakness for these interpretations; for Descartes claimed that the *Discours* amounted to a plan for his developing philosophical system. I argue that this poses a problem: the proposed inconsistencies suggest that the *Discours* is non-systematic, while Descartes claimed that it was (call this the problem of the *Discours*). The traditional interpretations fail to resolve this problem. For this reason, I provide an interpretation of Descartes' letters that argues his purpose in composing the *Discours* was to present his system as a methodical plan to explain the interconnectedness of the sciences, or, as he originally entitled it, *The Plan of a Universal Science*, a preface that was, in many ways, inspired by Bacon's *Instauratio Magna* (AT I, 339; CSM III, 51). This plan briefly presented Descartes' method and described, at least in generalities, the growth of his system, from his metaphysics to his physics and physiology to the connection of his foundations to the *Dioptrics* and *Meteors*. As a plan, I argue the *Discours* should be read as an introduction along with a sketch of his a system. Similarly, as a plan, I argue that Gadoffre's proposed inconsistencies can be explained, thus resolving the problem of the *Discours*. In addition, I argue that there are also important secondary features of the *Discours* that are highlighted by the autobiographic and mosaic interpretations. First, the *Discours* was partly written as an intellectual autobiography, where Descartes chronicled important stages in his development of his system, but this feature, I argue, was only the format of the *Discours*, not its purpose. Second, I hold that the parts of the *Discours* also amounted to a description of projects and treatises that Descartes developed before 1637. My caveat to the mosaic thesis is that the point of these treatises, by the late 1630s, was to construct a system.

Le Discours et sa Méthode, Paris, Presses Universitaires de France, 1987, pp. 46-47; Desmond Clarke, *Descartes' Philosophy of Science*, Manchester, Manchester University Press, 1982, pp. 180-181; Elie Denissoff, *Descartes, premier théoricien de la physique mathématique*, Louvain, Presses Universitaires de Louvain, 1970; F.E. Sutcliffe, "Introduction" to the *Discourse on Method*, New York, Penguin, 1968, pp. 10-12. Gregor Sebba claimed that Gadoffre's problem calls for a "...literary reappraisal of the *Discours* which recognizes the context of the period of origin." See Gregor Sebba, "Some Open Problems in Descartes' Research", in *Modern Language Notes*, 75/1970, pp. 222-229. As well, Sebba suggested in his *Bibliographia Cartesiana* that Leon Roth's *Descartes' Discourse on Method* was outdated because it did not respond to Gadoffre's problem. See Gregor Sebba, *Bibliographia Cartesiana*, New York, Springer-Verlag, 1964.

I. Gadoffre's Problem

Gadoffre's argued that Descartes did not intend the *Discours* to be read as a systematic text. He provided two reasons for this conclusion.⁴ First, he thought that the best evidence was to simply scroll through the preface itself, which reveals a disordered conglomeration of disparate subjects.⁵ For Gadoffre, it is intuitive that the aim of a preface, in general, is to introduce the content of a publication and the author's reasons for publishing it. However, he suggested that this does not hold for the *Discours*. Descartes began in Part One with an autobiographic evaluation of his education at the Jesuit college of La Flèche and the University of Poitiers, a description that is preceded by a brief preamble. However, on Gadoffre's count, he failed to provide reasons for introducing scientific essays with an intellectual autobiography. Descartes' unexpected historical description was followed by a sketch of his method, a description that, on Gadoffre's reading, should follow with its application to philosophy and physics. Rather, the positive progression in Part Two was interrupted by Descartes' "morale provisoire" in Part Three. Although Descartes included a transition paragraph, Gadoffre claimed that it was insufficient to establish a viable connection between method and morals. This content was then followed by a description of Descartes' discoveries in metaphysics, physics, and physiology in Parts Four and Five. Gadoffre held that Descartes provided no explanation for the order of these subjects. He admits, however, that from the perspective of the mature Descartes the transition from the metaphysical roots of philosophy to its outer branches seems plausible, but it is anachronistic to place these views onto Descartes' 1637 preface. Rather, Gadoffre held that the title of preface best fits Part Six (although the *Géométrie* was not mentioned).

Second, Gadoffre argued that there were various inconsistencies among the parts of the *Discours*. The most important, for Gadoffre, was Descartes' positions on Stoicism. On his reading, Descartes condemned Stoic morality in Part One.⁶ Descartes claimed that the ancient's system of philosophy, presumably the philosophy of the

⁴ I omit Gadoffre's travel inconsistency because of its implausibility. Gadoffre even admits that this one is less serious than the others. See Gilbert Gadoffre, "Réflexions sur la genèse du *Discours de la Méthode*", in *Revue de synthèse*, 1948, p. 14.

⁵ Gadoffre, "Introduction et remarques," *op.cit.*, p. xxvi and "Sur la chronologie du *Discours de la Méthode*," *Revue d'Histoire de la Philosophie et d'Histoire de la Civilisation*, 1943, pp. 12-13. This problem was adopted and described by Clarke, Sutcliffe, and Beck. See Clarke, *Descartes' Philosophy of Science*, pp. 180-181; Sutcliffe, "Introduction," pp. 11-12; Beck, *The Method of Descartes*, pp. 3-4.

⁶ Gadoffre, "Introduction et remarques," *op.cit.*, pp. xxvi-xxvii; Gadoffre, "Sur la chronologie du *Discours de la Méthode*," p. 51; Gadoffre, "Réflexions sur la genèse du *Discours de la Méthode*," pp. 13-14; Gadoffre, "La chronologie des six parties", in *Le Discours et sa Méthode*, Paris, Presses Universitaires de France, 1987, pp. 22-23.

Stoics,⁷ was faulty because they did not have knowledge of their foundational maxims, were more concerned with rhetoric than a method of discovery,⁸ and confused virtue with morally repugnant acts.⁹ However, Descartes seemed to reverse his repudiation in Part Three, now advocating Stoic morality. He claimed in his third maxim that he will, “try always to master myself rather than *fortune* and change my desires rather than the order of the world.”¹⁰ Gadoffre noted that Descartes explicitly connected this maxim to Seneca’s *De Vita Beata*.¹¹ He did this implicitly in his explanation of Seneca’s thoughts on happiness, an explanation that is curiously similar to his third maxim of his provisional morality:

[...] perfect *contentment* of mind and inner satisfaction, which is not commonly possessed by those who are most favoured by *fortune*, and which is acquired by the wise without fortune’s favour. So, *vivere beate*, to live happily, is just to have a perfectly content and satisfied mind. August 4, 1645 to Elizabeth, AT IV, 264; CSMK III, 257, emphasis added.

He then explicitly connected the maxim of Part Three to Seneca’s philosophy. He continued in the August letter, “It seems to me that each person can make himself *content* by himself without any external assistance, provided he respects three conditions, which are *related to the three rules of morality* which I put forward in the *Discourse on the Method*” (AT IV, 265; CSMK III, 257, emphasis added).

The transition from repudiation to limited advocacy of Stoic morality then takes another shift in Part Six, where Descartes, on Gadoffre’s reading, violated his third maxim, now writing as if he was oblivious of his provisional morality.¹² Descartes suggested in Part Six that his method will slowly enable him, or future generations, to increase in knowledge, making mankind “lords and masters of nature,” which is “desirable” because it will inculcate the “maintenance of health... the foundation of all the other goods in this life” (AT VI, 62; CSM I, 142-143). He admitted that, “...medicine as currently practiced does not contain much of any significant use” (*ibid.*).

⁷ Descartes’ did not explicitly name the Stoics in the *Discourse*, but, rather, referenced the philosophy of the “ancient pagans” (AT VI 7-8; CSM I 114). Despite this, others have suggested that the Stoics were most likely his target. See Étienne Gilson, *René Descartes. Discours de la méthode, texte et commentaire*, Paris, Vrin, 1925.

⁸ He wrote, “they do not adequately explain how to recognize virtue” (AT VI 8; CSM I 114). Presumably, this amounted to the criticism that they lacked a method, or, at least, did not disclose their method. He provided a similar criticism in Rule IV of the *Regulae*. See AT X 371; CSM I 15-16.

⁹ See AT VI 7-8; CSM I 114.

¹⁰ Gadoffre, “Réflexions sur la genèse du *Discours de la Méthode*,” p. 13; AT VI 25; CSM I 123, emphasis added.

¹¹ See Gadoffre, “La chronologie des six parties,” p. 31. For instance, Descartes wrote, “[...] I chose Seneca’s *On the Happy Life* to suggest to your Highness” (August 4, 1645 to Elizabeth, AT IV 263; CSMK III 256).

¹² Gadoffre, “Réflexions sur la genèse du *Discours de la Méthode*,” p. 13.

However, he claimed to have hope that “we *might* free ourselves from innumerable diseases [...] *perhaps* even from the infirmity of old age” (ibid., emphasis added). His “faith” and “hope” in future discoveries were objects that were, for Gadoffre, outside of Descartes’ control, a violation of his third maxim.¹³

The problem of Stoicism was Gadoffre’s main interest. However, contemporary commentators have focused on Descartes’ inconsistent descriptions of method. This problem was Gadoffre’s concern as well.¹⁴ However, he relied on Leon Brunschvicg’s thesis that Part Two of the *Discours* was specifically a preface for the *Géométrie*, not a summary of the *Regulae*.¹⁵ This thesis has had few proponents¹⁶ and, for this reason, I will focus on the more contemporary discussion.¹⁷ In Part Two of the *Discours*, Descartes provided a brief description of his method, where he provided four precepts, or general rules, of the method. In the first, he defined knowledge as a cognition that presented “itself [...] so clearly and so distinctly that I had no occasion to doubt it.”¹⁸ This precept was achieved by dividing composite and confused propositions into simple parts, as he informed in the second precept, and, then, the third required the agent to reorder the propositions in terms of epistemic dependency, where a Cartesian investigator is to deduce each proposition, step by step, until the original, composite proposition is known with certainty.¹⁹

¹³ Gadoffre, “Réflexions sur la genèse du *Discours de la Méthode*”, p. 13.

¹⁴ Gadoffre, “Sur la chronologie du *Discours de la Méthode*”, pp. 49-50; Gadoffre, “Réflexions sur la genèse du *Discours de la Méthode*”, p. 18; Gadoffre, “La chronologie des six parties,” p. 21.

¹⁵ Gadoffre relied on Leon Brunschvicg’s thesis that claimed that Part Two is more closely aligned to the algebra of the *Géométrie* than the mathematics of the later *Regulae*. I agree with Clarke’s thesis that Part Two described an ongoing method and, for this reason, Part Two is most likely a summary of Book I of the *Regulae*. See Clarke, *Descartes’ Philosophy of Science*, pp. 182, 196, fn. 18.

¹⁶ I only know of Brunschvicg and Gadoffre to have advocated this position. See Léon Brunschvicg, *Les Étapes de la philosophie mathématique*, Paris, Librairie Félix Alcon, 1912 and Brunschvicg, “Mathématiques et métaphysique chez Descartes”, in *Revue de Métaphysique et de Morale*, Juillet, 1927. On the other hand, there have been numerous commentators to claim that Part Two was a summary of the *Regulae*. See Beck, *The Method of Descartes*, pp. 5-8, 149-152; Peter Dear, “Method and the Study of Nature”, in *The Cambridge History of Seventeenth-Century Philosophy*, Cambridge, Cambridge University Press, 1984, p. 156; Daniel Garber, *Descartes’ Metaphysical Physics*, Chicago, University of Chicago Press, 1992, p. 49; Stephen Gaukroger, *Descartes: An Intellectual Biography*, Oxford, Clarendon Press, 1995, p. 306; Evert van Leeuwen, “Method, Discourse, and the Act of Knowing”, in *Essays on the Philosophy and Science of René Descartes*, New York, Oxford University Press, 1993, pp. 224-225; Peter Schouls, *The Imposition of Method*, Oxford, Oxford University Press, 1980, p. 57; Norman Kemp Smith, *New Studies in the Philosophy of Descartes*, New York, Russell & Russell, 1963, p. 49.

¹⁷ For a summary of this inconsistency, see Paul Olscamp, “Introduction”, in René Descartes’ *Discourse on Method, Optics, Geometry, and Meteorology*, Indianapolis, Hackett Publishing Company, 2001.

¹⁸ AT VI 18; CSM I 120.

¹⁹ AT VI 18; CSM I 120. For a description of how Descartes applied this method to scientific questions, see Daniel Garber, “Descartes and Method in 1637”, in *Descartes Embodied: Reading Cartesian Philosophy through Cartesian Science*, Cambridge, Cambridge University Press, 2000.

This discovery, however, did not ensure knowledge, for he claimed in the *Regulae* that certain cognition is “understood all at once, and not bit by bit” (AT X, 407; CSM I, 37). At this stage, each deduction is known with certainty. However, the total chain of reasoning is not a discrepancy that Descartes resolved in the fourth precept. He suggested that one should continuously review the deductions to ensure that nothing was left out of the cognition, so that the total chain was cognized all at once.

The method of Part Two seems to be in contrast with Descartes’ actual procedure in the *Dioptrics* and *Meteors*, which he described in Part Six.²⁰ He explained that he began with “suppositions,” not intuitions, and then deduced his conclusions. He was open about his procedure,

Should anyone be shocked at first by some of the statements I make at the beginning of the *Optics* and the *Meteorology* because I call them ‘suppositions’ and do not seem to care about proving them [...]”²¹

In the *Dioptrics*, he made “use of two or three comparisons” (AT VI, 83; *Dioptrics* 66; emphasis added) and, in the *Meteors*, he used “certain hypotheses at the outset” (AT VI, 232-233; *Meteors* 264; emphasis added). Moreover, he thought that his inferences were deductions. He claimed in Part Six “the last are proved by the first, which are their causes” and that the effects were “deduce[d]” by these “causes” (AT VI, 76; CSM I, 150). In addition, he wrote in regard to his *Meteors*, “Compare the deductions I have made from my assumption – about vision, salt, winds, clouds, snow, thunder, the rainbow, and so on [...]”²²

II. The Mosaic Interpretation

The best explanation, Gadoffre claimed, was simply to accept the problem. For him, the *Discours* was a mosaic,²³ a presentation of Descartes’ early writings:

²⁰ For a description of Descartes’ scientific method in Part Six, see Clarke, *Descartes’ Philosophy of Science*, pp. 180-194; Denissoff, *Descartes, premier théoricien de la physique mathématique*; Gary Hatfield, “Science, Certainty, and Descartes”, in *PSA: Proceedings of the Biennial Meeting of the Philosophy of Science Association 1988*, vol. 2, ed. by A. Fine and J. Leplin, East Lansing, Mich., Philosophy of Science Association, 1989; Olscamp, “Introduction,” pp. ix-xxxiv.

²¹ AT VI, 76; CSM I, 150.

²² July 13, 1638 to Morin, AT II 200; CSMK III 107; emphasis added.

²³ There have been many proponents of the mosaic interpretation: Beck, *The Metaphysics of Descartes: A Study of the Meditations*, Oxford, Clarendon Press, 1965; Clarke, *Descartes’ Philosophy of Science*; Constantino Comneno Láscaris, *Descartes: discurso del Método*, Ciudad Universitaria, 1961, Gadoffre, “Introduction et remarques”; Leon Roth, *Descartes’ Discourse on Method*, Oxford, Clarendon Press; and F. E. Sutcliffe, “Introduction” to the *Discourse on Method*, New York, Penguin, 1968. Gadoffre’s presentation has been considered the most persuasive. For instance, Sutcliffe wrote, “Gadoffre has established beyond all doubt the various stages of the composition of this text.” See Sutcliffe, “Introduction,” pp. 11-12.

from an early autobiography to a series of prefaces. In particular, he argued that Part One was an excerpt from a lost draft of his *Histoire de mon esprit* written for Balzac sometime after 1628.²⁴ Part Two was a preface for his *Géométrie*. The provisional morals of Part Three were a new addition, added around March 1637. Part Four was a summary of his 1628 *Traité de métaphysique*. Part Five was a selective summary of *Le monde*, published by Clerselier in 1664 as the collective title of the *Traité de la lumière* and the *Traité de l'homme*. Last, Part Six was the original 1635-1636 preface of the *Dioptrics* and *Meteors*. His thesis is that these projects were developed independently, and the *Discours*, as a preface, was a presentation of these disparate investigations, presented along with the *Essais*.

Gadoffre claimed that the mosaic interpretation is supported by Descartes' development of the *Discours*, which was reported in the newly discovered correspondence with Constantijn Huygens.²⁵ Descartes first mentioned the preface that later became the *Discours* in his November 1, 1635 letter to Huygens:

I am obliged to you beyond words, and am amazed that having so many important tasks you should offer to see to all the details of the printing of the *Optics*...I plan to add the *Meteorology* to the *Optics* [...] and to write a *preface* which I intend to add to it. For this reason I shall wait another two or three months before speaking to the publisher [...].²⁶

Descartes planned to write his preface in November and, on Gadoffre's reading, he completed it sometime in February 1636. He wrote to Mersenne in March, "I postponed replying to you in the hope of being able to tell you soon that I had sent work to the printer," mainly the Elzevirs in Leiden, as he indicated in the letter.²⁷ Disagreements with the Elzevirs would later provoke Descartes to seek a publisher in Paris and then settle with Jan le Maire.²⁸ What is of interest to the mosaic interpretation is the identity of the preface that Descartes originally submitted to the Elzevirs. The traditional chronology assumed that the 1635 preface was identical to the published *Discours*.²⁹ However, Gadoffre claimed that this assumption is implausible for there is evidence that parts were added after the February submission.

²⁴ Other proponents of the mosaic interpretation claim that Parts One through Three constitute the lost excerpt. See Roth, *Descartes' Discourse on Method*, p. 24 and Beck, *The Method of Descartes*, pp. 4-5.

²⁵ Léon Roth, *The Descartes-Huygens Correspondence*, Hermann et C^{ie}, 1937.

²⁶ November 1, 1635 to Huygens, AT I 591-592; CSMK III 50, emphasis added.

²⁷ March 1636 to Mersenne, AT I 338-339; CSMK III 50-51.

²⁸ March 1636 to Mersenne, AT I 338-339; CSMK III 50-51.

²⁹ Gadoffre, "Introduction", p. 16. Gadoffre claims that there are three possibilities. Either the original preface was discarded, was partially incorporated into the *Discours*, or it is the full *Discours*.

For instance, the provisional morality of Part Three was added well after the composition of the original preface. The composition and adoption of Part Three was a result of problems of securing a French privilege to sell the *Discours*. A privilege secured a copyright protection that was restricted to a given geographical location. It is clear that much maneuvering would take place to persuade governmental authorities. In this case, Descartes unusually wanted a French and Dutch copyright protection for the publication of his French *Discours* and *Essais* and, oddly enough, for any future publication. The Dutch privilege was granted without difficulty on December 20, 1636, overseen by Huygens.³⁰ However, Mersenne's attempt to secure a French privilege proved troublesome. On January 1, 1637, Descartes asked Huygens to send a copy of his *Dioptrics* and *Meteors*, and a draft of his *Géométrie* (without the *Discours*) to Paris.³¹ Huygens told Descartes that he transferred the essays to Mersenne,³² who, in February, informed Descartes that authorities wanted to see the entire preface.³³ Gadoffre proposed that Descartes learned of the possibility of civil censure concerning the skepticism of Part Four and, for this reason, added his provisional morality to the *Discours*, to soften the Scholastic reaction to his publication.³⁴ Gadoffre supported this thesis with Descartes' comments in the *Conversation with Burman*:

The author does not like writing on ethics, but *he was compelled to include these rules* because of people like the Schoolmen; otherwise, they would have said that he was a man without any religion or faith and that he intended to use his method to subvert them.³⁵

He was "compelled to include these rules," and the likely period of inclusion, Gadoffre suggested, was during Descartes' wait on the French privilege under the threat of civil censure, which occurred sometime in May 1637.³⁶

This late addition establishes that Descartes' original preface was not the entire *Discours*, revealing problems for the traditional chronology. For this reason, the original preface must have been some limited portion of the published *Discours*. There are, Gadoffre claims, restrictions in determining the content of the original

³⁰ January 1, 1636 to Mersenne, AT I 615.

³¹ January 1, 1637 to Huygens, AT I 615.

³² January 5, 1637, Huygens to Descartes, AT I 616-617.

³³ February 27, 1637, Mersenne to Descartes, AT I 659-662.

³⁴ Gadoffre, "La chronologie des six parties", pp. 36-37.

³⁵ *Conversation with Burman* 49, emphasis added.

³⁶ Descartes wrote to Huygens on March 3 that "the end [of the *Discours*] is not made yet" (March 3, 1637 to Huygens, AT I 622-623) and, by March 24, the preface was completed and arrived in Paris (March 22, 1637 to Huygens, AT I 625-626). He received the privilege on June 12 (June 12, 1637 to Mersenne, AT I 637; CSMK III 59), and the *Discours* was then printed later that month. So, the date of inclusion was, most likely, sometime in May.

preface. First, it was written to serve as a restricted introduction to the *Dioptrics* and *Meteors*. So, it should contain an introduction to only this content and a description of his reasons for publishing them. Second, the preface was written before any of the other parts and, for this reason, it cannot assume or reference material other than the introduction to these two scientific works. For Gadoffre, only Part Six met these constraints. In this part, Descartes provides a broad description of his scientific method that he claimed to have applied in the *Dioptrics* and *Meteors*, and the content, on Gadoffre's reading, does not reference material from the other parts of the *Discours*. Moreover, this part only mentions the *Dioptrics* and *Meteors*, which were part of the original 1635 preface, excluding the *Géométrie*, which was added to the publication much later.

On this interpretation, Descartes was in Leiden in February 1636 with a preface (along with a draft of the *Dioptrics* and *Meteors*) that was fairly similar to Part Six of the published *Discours*. We know that, by March, he had revised his preface, now entitled *The Plan for a Universal Science*, where he added content and submitted a draft to Mersenne, as he explained in his March letter to Mersenne.³⁷ He also explained some of its contents: "In this *Plan* I explain a part of my method, I try to prove the existence of God and of the soul apart from the body, and I add many other things [...]"³⁸ On Gadoffre's reading, Descartes' new draft of his preface amounted to an amalgam of heterogeneous projects that aimed to show that his method extends to multiple areas in philosophy and science. For him, Part Four was a summary of his unfinished *Traité de métaphysique* and the clause "many other things" amounted to the selective summary of his physics and physiology in the *Traité de la lumière* and the *Traité de l'homme* in Part Five and an excerpt from an early autobiography in Part One. The first two claims are uncontroversial. However, advocates of the mosaic interpretation disagree about the extent of the autobiography. Gadoffre claims that it was an excerpt for Descartes' 1629 *Histoire de mon esprit* and made up Part One of the *Discours*.³⁹ Others agree that it was part of Descartes' unfinished *Histoire*, but argue that the autobiography extended to Parts One through Three and included a summary of Descartes' 1619-1628 *Regulae*.⁴⁰ Gadoffre's claim that the parts of the *Discours* were descriptions of independent projects seems plausible and, for this reason, I will continue to follow Gadoffre's version of the mosaic thesis. The only caveat is that it is much more plausible that Part Two was a summary of the *Regulae*, and this

³⁷ March 1639 to Mersenne, AT I 339; CSM III 51.

³⁸ March 1639 to Mersenne, AT I 339; CSM III 51.

³⁹ The opening was added after 1628. Gadoffre, "Réflexions sur la genèse du *Discours de la Méthode*", p. 52; "La chronologie des six parties", pp. 24-26.

⁴⁰ See fn. 24.

material most likely amounted to his description, “In this *Plan* I explain a part of my method,” content that he claimed to have added in his March letter.⁴¹

Part One is obviously autobiographical, but why did Gadoffre claim it is an excerpt from Descartes’ proposed *Histoire*? On his mosaic thesis, each part of the *Discours* was a description of an independent project, and Descartes seemed to have claimed in a 1628 letter that he was going to write an autobiography. His evidence for his claim comes from his 1628 correspondence with Guez Balzac. Although we do not have Descartes’ 1628 letter to Balzac, we do have Balzac’s response. Balzac requested Descartes to “[...] remember, please your *History of My Spirit*. It is awaited from all our friends.”⁴² He then described its content: “I will have the pleasure there to read of your various adventures, to consider your prowess against the giants of the School, and the progress that you made in the truth of things.”⁴³ At first glance, it seems plausible that this could have been a description of Part One of the *Discours*, which may have been an excerpt from his *Histoire*. However, the passage only shows that Descartes was proposing to write an autobiography, not that he actually did.

Gadoffre’s evidence that Descartes actually wrote a *Histoire* is his comparison of Descartes’ letters to Balzac to Part One of the *Discours*. His claim is that Descartes completed a rough draft of his *Histoire* and presented it to Balzac sometime in 1628. Descartes then referenced his much-awaited autobiography in his letters to persuade Balzac to board with him in Holland. This, Gadoffre claims, is why topics in his letters to Balzac are similar to the autobiographical passages in the *Discours*. For instance, Descartes wrote,

Please do not ask me what this task that I deem so important might be, for it would embarrass me to tell you. I have become so philosophical that I despise most of the things that are ordinarily of value, and I value others which are usually put at no value.⁴⁴

He wrote in the *Discours*, “[...] when I cast a philosophical eye upon the various activities and undertakings of mankind, there are almost none which I do not consider vain and useless.”⁴⁵

Gadoffre’s mosaic thesis provides a resolution to the proposed inconsistencies. First, the *Discours* contains an arbitrary order of presentation because the purpose of

⁴¹ March 1639 to Mersenne, AT I, 339; CSM III, 51.

⁴² March 30, 1628, Balzac to Descartes, AT I 570.

⁴³ March 30, 1628, Balzac to Descartes, AT I 570.

⁴⁴ April 15, 1631 to Balzac, AT I 198; CSMK III 30.

⁴⁵ AT VI 3; CSM I 112. There are also similarities between passages in Descartes’ 1619 *Studium bonae mentis* and Part One of the *Discours*. See Brissey, Patrick. *Descartes’ World: An Interpretation of the Discourse on Method*, pp. 120-130.

the text was to present various, unconnected specimens of Descartes' philosophy to the public. For him, the text is purposely a mosaic of disparate works under the theme of method in order to suggest to his readers that his method extends to many disciplines. Second, his thesis resolves the outstanding inconsistencies. Gadoffre admitted that Descartes condemned Stoic morality in Part One of the *Discours* (and in his lost *Histoire*), which, he claimed was composed during a wave of anti-Stoicism. However, Descartes' condemnation is not a blatant contradiction with the provisional morality of Part Three, on Gadoffres' interpretation, for he thought roughly a decade (1628 to 1637) is a sufficient period for Descartes to change his opinion. Moreover, Gadoffre explained that Descartes ignored the third maxim of his provisional morality in Part Six because Part six as the original February 1636 preface was written well before Part Three was composed. Last, there are two incompatible methods because each method had a different purpose. Part Two, as the method of the *Regulae*, aimed to solve discrete questions in the mathematics and applied mathematics, the more quantitative sciences, while the method of Part Six was his scientific method that he applied to more qualitative science, mainly the *Dioptrics* and *Meteors*.⁴⁶

III. The Autobiographic Interpretation

Alquié provided an alternative solution.⁴⁷ He agreed with Gadoffre's suggestion that the *Discours* contains inherent inconsistencies. However, for him, this did not necessitate that the *Discours* was incoherent.⁴⁸ Rather, he argued the *Discours* has a chronological coherence as a historical description of Descartes' intellectual development.⁴⁹ On this view, the mistake of the mosaic interpretation is that it focuses on the chronology of the composition of the *Discours*, rather than the chronology of Descartes' story of his intellectual development. The strategy, then, on Alquié's reading, was to take up Gadoffre's thesis that Part One is autobiographical and then explain that the autobiography extends throughout the preface.⁵⁰ He explained that Descartes began his history by providing historical markers to

⁴⁶ This claims deviates from Gadoffre's version of the mosaic thesis. See fn. 16 and 17.

⁴⁷ For other autobiographic interpretations, see Gustave Cohen, *Les écrivains français en Hollande dans la première moitié du XVII^e siècle*, Paris, Champion, 1920; Curley, "Cohérence ou incohérence du *Discours*;" Henri Gouhier, *Descartes, Essais sur le Discours de la Méthode, la Morale et la Métaphysique*, Paris: Vrin, 1973; Hatfield, "Science, Certainty, and Descartes;" Olscamp, "Introduction"; and Sylvie Romanowski, *L'illusion chez Descartes*, Klincksieck, 1974.

⁴⁸ Ferdinand Alquié, *Oeuvres philosophiques de Descartes*, Paris, Garnier, 1963-73, vol. I, p. 552; Alquié, *La Découverte métaphysique de l'homme chez Descartes*, Paris, Presses Universitaires de France, 1966, p. 362.

⁴⁹ Alquié, *Oeuvres philosophiques de Descartes*, vol. I, pp. 553-554.

⁵⁰ Alquié, *Oeuvres philosophiques de Descartes*, vol. I, p. 552.

designate the time of each part of his intellectual development. For instance, in Part One, Descartes specified that his education was specifically from his “childhood,” where, at its conclusion, he “spent...[his] youth traveling, visiting courts and armies.”⁵¹ He provided an evaluation of his education and a brief description of his travels. However, his focus was historical: a description of his education, at his school, during his childhood. Most commentators have noticed this emphasis. However, these markers continue throughout the *Discours*. The method of Part Two was written in “Germany” in 1619, while he was “shut up alone in a stove-heated room,” after his attendance of the “coronation of the Emperor,” Ferdinand II in Frankfurt.⁵² Similarly, Germany was the same setting for his development of the morals of Part Three. He wrote them, again, “shut up in the stove heated room,” the place “where I had all of these thoughts.”⁵³ In Part Four, he described his metaphysics. However, this was not a change in focus as Gadoffre claimed, for he provided a historical context. He wrote in Part Three, “Exactly eight years ago [1629] this desire made me resolve to move away [...] and retire to this country [Holland]” and, then, in Part Four, he claimed that these were “the first meditations that *I had there* [Holland].”⁵⁴ Similarly, the main focus of Part Five was to discuss the contents of *Le Monde*, which he connected to his chronology. He wrote, “It is now three years [1634] since I reached the end of the treatise that contains all these things.”⁵⁵ He then concluded his history by describing the historical events that resulted in his publication of the *Discours*: first, the reasons that resulted in him not publishing *Le Monde* and, second, the reasons why he published the *Discours* and *Essais* instead.⁵⁶

Alquié’s choice of parsing the *Discours* into chronological periods provides a response to the Gadoffre’s problem. First, he claimed that Descartes’ description of his intellectual development explains the problem of order, for the *Discours* was the story of Descartes’ life.⁵⁷ The parts, on this view, are connected by their sequence in the chronological order of Descartes’ intellectual development. Second, Alquié argued that his interpretation explains the Gadoffre’s inconsistencies. On Stoicism, he held that sometime in 1617, after Descartes’ graduation from La Flèche, he assessed his moral education and sharply criticized Stoicism.⁵⁸ However, by 1619, he then

⁵¹ AT VI 9; CSM I 115.

⁵² AT VI 11; CSM I 116.

⁵³ AT VI 28; CSM I 125.

⁵⁴ AT VI 30-31; CSM I 126.

⁵⁵ AT VI 60; CSM I 141.

⁵⁶ AT VI 60-73, 159-151; CSM I 141-149, 149-151.

⁵⁷ Alquié, *Œuvres philosophiques de Descartes*, vol. I, p. 553.

⁵⁸ Alquié, *Œuvres philosophiques de Descartes*, vol. I, p. 562.

changed his opinion as he began to travel Europe.⁵⁹ For Alquié, two years was a sufficient amount of time to explain Descartes' change of opinion. In addition, Alquié held that there is no inconsistency between Parts Three and Six, for Alquié suggested that the provisional morality of Part Three was just that, provisional: restricted solely to the 1620 to 1628 period of Descartes' extensive travels across Europe.⁶⁰ Descartes' third maxim, on this reading, was inactive during this period of Part Six. For this reason, he had hope for future of discoveries because he had already discarded his travel morality. Concerning the inconsistency on method, Alquié thought, like Gadoffre, that the 1619-1620 method of Part Two was primarily an apriori mathematical method, specifically the method of the *Géométrie*.⁶¹ However, as Descartes progressed to his natural philosophy in the 1630s, the method evolved. He kept the procedure of composition of his original method, but now began with hypotheses and introduced experiments to make inferences.⁶² In short, Alquié held that Descartes developed two incompatible methods that were devised for two different purposes during different stages of Descartes' life.

IV. The Problem of the *Discours*

The mosaic and autobiographic interpretations resolve Gadoffre's problem. This is achieved by parsing the *Discours* into unconnected parts. The problem is that Descartes claimed that the parts of the *Discours* formed a sketch of his system, which suggests that some of the parts are interconnected. My argument for this claim is as follows: Descartes claimed that he was developing a deductive system of philosophy before his composition of the *Discours* and that, in his 1637 preface, he provided a brief presentation of this emerging system. For this reason, I hold that some of the parts of the *Discours* are interconnected and that the *Discours* should not be read merely as a mosaic of Descartes' past works or as an autobiography. For instance, he explained to Vatier that his "thoughts are so interconnected" that the "assumptions" of the *Essais* could be "deduce[d] [...] from the first principles

⁵⁹ Curley has highlighted that there is a problem with Alquié's explanation. Alquié admits that Descartes composed the parts of the *Discours* in roughly sixteen months, but Curley suggests that sixteen months is an insufficient amount of time for Descartes to change his opinion. It is clear that Curley misread Alquié on this point, for Alquié's position is not directed at the timeline of the development of the *Discours*, but on the internal development of Descartes' intellectual thought. See Alquié, *La Découverte métaphysique de l'homme chez Descartes*, p. 44. For this reason, Curley criticism is not applicable.

⁶⁰ Alquié, *Œuvres philosophiques de Descartes*, vol. I, p. 562.

⁶¹ Alquié, *Œuvres philosophiques de Descartes*, vol. I, p. 565.

⁶² Alquié suggested that Descartes acknowledged such an evolution. See End of December 1637 to Mersenne, AT I 478; CSM I 78.

of my metaphysics.”⁶³ His claim was that he thought he could provide a deduction according to the order of reasons. However, he also connected this claim to his presentation in the *Discours*. He explained in Part Six, “I have called them ‘suppositions’ [the assumptions of the *Essais*] simply to make it known that I think I can deduce them from the primary truths I have expounded above.” Of course, he did not provide such a deduction in the *Discours*. He, however, in fact, he told Huygens that this feature of the *Discours* led some, mainly Mersenne and Vatier, to request him to publish his “*Physics and Metaphysics*” in order to understand his deduction in the *Essais*.⁶⁴ As well, when we turn to the *Discours* itself, he claims that his physics and physiology were deduced from his metaphysics. He wrote, “I would gladly go on and reveal the whole chain of other truths that I deduced from these first ones.”⁶⁵ His claim to be developing a deductive system, however, does not directly refer to the parts of the *Discours*. Despite Descartes’ claims, it seems likely that his future system was in a developmental stage during this period, for *L’homme* was not complete. At best, his claim is that he thought he could one day achieve a deductive cognition in his science. In terms of the present paper, it is clear that his claim was that the parts of the *Discours* were interconnected and presents a first approximation of his system of philosophy.

This, then, is the problem of the *Discourse*: the *Discourse* contains inherent inconsistencies, which seem to necessitate an interpretation that separates it into unconnected parts. Descartes claimed, however, that the text presented a version of his system of philosophy, which necessitates that the *Discours* contains interconnected parts. The problem is to provide an interpretation that explains the inconsistencies, while still holding that the *Discours* is a presentation of Descartes’ system of philosophy. The standard interpretations do not successfully provide such an explanation.

V. The *Discours* as a Plan for a Universal Science

My resolution to the problem of the *Discours* is to interpret the preface as a plan for a universal science, as Descartes first entitled it in 1636. This strategy both provides an explanation why Descartes claimed the *Discours* was a philosophical system and why there are breaks and inconsistencies in the text. I begin with a brief historical exegesis in order to explain and provide evidence for my thesis. I do not provide anything new in this interpretation of Descartes’ *Correspondence*. Rather, my claim is that in order to understand Descartes’ purpose for writing the

⁶³ February 22, 1638 to Vatier, AT I 563; CSMK III 87.

⁶⁴ March 9, 1638 to Huygens, AT I 564; CSMK III 88. See also Descartes’ Letter to Father Dinet, AT VII 574-577, 602-603; CSM II 387-389, 397.

⁶⁵ AT VI 40; CSM I 131. See also AT VI 63-64; CSM I 143-144.

Discours, we must understand how he began developing a philosophical system, why he suppressed it, and why he chose to publish a general plan or preface along with the *Dioptrics* and *Meteors* instead.

It is clear that in 1619 Descartes had systematic hopes, for he aimed to make “true and sound judgments” about “whatever” comes before the mind, “not with a view of solving this or that scholastic problem,” but with a more general aim, studying the sciences together, at once, because “all the sciences are so interconnected.”⁶⁶ In practice, however, Descartes’ claims amounted to rhetoric in 1619. The topic of a universal science reemerged in 1628 when Descartes began reflecting on his “finest example,” his enquiry into the essence and scope of human knowledge that was sketched in Rule Eight. He now wanted to define knowledge and explain how the sciences were interconnected, showing the foundations where he could deduce solutions to problems in optics, physics, mathematics, and other sciences.⁶⁷ He had worked extensively in optics and mathematics to this point,⁶⁸ but it was not until 1628 did he begin taking his systematic project more seriously. Baillet reported that it was at this time, after the Chandoux conference, that he moved to Holland to develop his system of philosophy. He began by drafting, at least, the beginning of a *Traité de métaphysique*⁶⁹ by 1629 and quickly turned to a *Traité de Parhelia* in July. Reneri inquired whether he had an explanation for parhelia and he changed his research aims, but discovered that his explanation of parhelia depended on a more thorough investigation and, for this reason, he began a new treatise by October, later entitled *Meteors*, that explained all meteorological phenomena.⁷⁰ He, however, was adamant that these treatises were only part of his philosophical system, not its totality. He wrote concerning the *Meteors*, “[...] I have decided to *publish this treatise as a specimen of my philosophy*.”⁷¹ One month later, he explained that his meteorological explanations depended on an explanation of “all the phenomena of nature, that is to say, the whole of physics.”⁷² He was now developing the general aim of his philosophy that he proposed in Rules One and Eight of the *Regulae*.

He began drafting his physics in *Le monde* in 1629 and, by late 1633, he completed something close to a draft. He wrote to Mersenne, “I had intended to send you my *World* as a New Year gift, and two weeks ago I was quite determined

⁶⁶ AT X 359, 361; CSM I 9, 10.

⁶⁷ AT X 397; CSM I 31.

⁶⁸ See John Schuster, *Descartes-Agonistes: Physico-mathematics, Method and Corpuscular Mechanism, 1618-1633*, Springer, 2013, p. 99-220.

⁶⁹ July 18, 1629 to Gibieuf, AT I 17; CSMK III 5.

⁷⁰ October 8, 1629 to Mersenne, AT I 22-23, CSMK III 6.

⁷¹ October 8, 1629 to Mersenne, AT I 23; CSMK III 6.

⁷² November 13, 1629 to Mersenne, AT I 70; CSMK III 7.

to send you at least a part of it, if *the whole work could not be copied in time*⁷³ *Le monde* was, most likely, Descartes' most ambitious and, perhaps, most comprehensive philosophical project. In this treatise (or the portion entitled *Traité de la lumière*), he thought that he derived the laws of motion from God's essence and gave an early formulation of his theory of matter. He, moreover, proposed that if God created a chaotic plenum, God's laws would necessitate that it would look similar to the present universe. He, moreover, used his corpuscularian thesis (in the portion entitled *L'homme*) to provide an explanation of the physiology of man, including the physiology of the heart, as well as the brain. Descartes, however, never published his treatise. At the same time that he generally completed a draft of the treatise, he learned of Galileo's condemnation by the Inquisition for his heliocentric thesis in his *Dialogue Concerning Two Chief World Systems* (1632). His worry in 1633 was that he too would be condemned because, like Galileo, Descartes also included a version of the Copernican thesis in his *Le monde* and, for this reason, among others, he decided to suppress it. He explained, "[...] I could not remove it [the movement of the earth] without rendering the whole work defective."⁷⁴ *Le monde* was never published during Descartes' lifetime. However, he was, at first, tentative on his decision whether to keep it suppressed. He told Mersenne, "I preferred to suppress it rather than to publish it in a mutilated form," but added, "I shall let you see what I have composed after all, but I ask you to be so kind as to *allow me a year's grace* so that I can revise and polish it."⁷⁵ His principal interest at the time was not only revision of the text, but also to collect the relevant facts concerning the "Galileo affair," as is indicated by his February and April letters.⁷⁶ What is important for the present thesis was that after Descartes learned of the Galileo affair in late 1633, he decided to wait a year and then choose whether he would publish *Le monde*.

It was this decision, after his year's hiatus, which resulted in the *Discours*. He was to make his decision in early 1635. What actually occurred at this time was far from what Descartes originally desired. He continued with his 1633 suppression, but now he had decided to publish parts of the treatise, as he specifically warned against. He wrote, "Yet, after having promised you the whole work for so long, it would be bad faith on my part if I tried to satisfy you with trifling pieces."⁷⁷ By 1635, circumstances had apparently changed. He settled with publishing specimens of his philosophical system in order to avoid controversy. He first "detached" the

⁷³ End of November 1633 to Mersenne, AT I 270; CSMK III 40; emphasis added.

⁷⁴ End of November 1633 to Mersenne, AT I 271; CSMK III, 41.

⁷⁵ End of November 1633 to Mersenne, AT I 271; CSMK III 41, emphasis added.

⁷⁶ End of November 1633 to Mersenne, AT I 271; CSMK III 41; February 1634 to Mersenne, AT I 281-282; April 1634 to Mersenne, AT I, 285-288; CSMK III 41-42; CSMK III 42-44).

⁷⁷ End of November 1633 to Mersenne, AT I 272; CSMK III 41.

optical portions of *Le monde*, revised it, and planned to have it published as the *Dioptrics*. He explained to Huygens, "As for eyepieces, I must say that after Galileo's condemnation I revised and *completed the treatise I had begun some time ago. I have detached it completely from The World*, and I am planning to have it published on its own before long."⁷⁸ It is unclear whether his claim was that his *Dioptrics* was once part of *Le monde* and then he detached and revised it, or whether he revised his *Dioptrics* (an independent treatise) where he did not include a summary of his physics. What is important is the claim that the *Dioptrics* is dependent on the physics and physiology of *Le monde*.

In addition, we have seen in Descartes' 1629 letters that his *Meteors* was planned to be incorporated into an explanation of "all the phenomena of nature," part of Descartes' full physics.⁷⁹ There is, however, very little evidence that Descartes included his meteorological explanations in *Le monde*. Despite this, there is circumstantial evidence that, like the *Dioptrics*, the *Meteors* was likewise dependent on the conclusions of *Le monde*.⁸⁰ It was this systematic presentation of his natural philosophy that Descartes aimed to produce in 1619 and was interested in publishing, but could not, for fear of censure in 1633. He had an unfinished, but developing system of philosophy in a series of treatises. His response to the Galileo condemnation was to detach the portions of physics from his *Dioptrics* and *Meteors*, at least in some sense, and publish them separately. He wrote to Huygens in November 1635, "I am obliged to you beyond words, and am amazed that having so many important tasks you should offer to see to all the details of the printing of the *Optics*" and then told, "I plan to add the *Meteorology* to the *Optics* [...]"⁸¹ This was the letter where Descartes first proposed publishing a "preface." Roughly five months later, Descartes had a rough draft of the preface and a title that read, in part, "*A Plan for a Universal Science* [...]"⁸² This plan, he told, began by describing his method and then explaining his metaphysics and "many other things." Presumably, this latter clause amounted to a selective description of the physics and physiology of *Le monde*, which he suppressed just two years earlier. The *Plan*, he told, was to be published with the *Dioptrics* and *Meteors*. This, on whole, seems to be the system of philosophy that Descartes was developing in the late 1620s and early 1630s in independent treatises. It was not until roughly a year later in February 1637 that Descartes changed the focus of the title to *Discourse on Method: of rightly conducting one's reason and seeking the truth in the sciences*." An examination of the title shows that it is

⁷⁸ June or July 1635 to Mersenne, AT I 322; CSMK III 49; emphasis added.

⁷⁹ November 13, 1629 to Mersenne, AT I 70; CSMK III 7.

⁸⁰ See Patrick Brissey, "Descartes and the Meteorology of the *World*," *Society and Politics* 6, 2, pp. 88-100.

⁸¹ November 1, 1635 to Huygens, AT I 591, 592; CSMK III 50.

⁸² March 1636 to Mersenne, AT I 339; CSM III 51.

similar to the title and commentary of Rule One of the *Regulae* and the intent of his original *Plan*.

The historical events that resulted in the *Discours* suggest that Descartes' preface was written as a plan for his developing science. He could not disclose the entirety of his system, especially his astronomy. However, as a plan, he could selectively describe the parts of his system. The focus of his publication was his *Dioptrics* and *Meteors*, but he wanted to show that the suppositions in these essays were not mere guesses. Rather, he wanted to suggest that he thought he could deduce his suppositions by his physics and metaphysics, as he explained to Mersenne and Vatier. For this reason, the *Discourse*, as a plan, presented each of the necessary parts of his system, mainly his metaphysics in Part Four (from his *Traité de métaphysique*) and his physics and physiology in Part Five (*Traité de la lumière* and *L'homme*). Further, Descartes thought, in some sense, that it was his procedure for his faculties, his method, that resulted in the order of the disciplines.⁸³ For this reason, he included a summary from his *Regulae*. Further, the principle point of Part Six was to explain his reasons for publishing the *Discours* as a plan and how the preface is connected to the *Essais*. This part explained how the parts could be formulated into a system that could, perhaps, deduce the assumptions in his scientific essays.

My interpretation of the *Discours* as a "plan" does not totally discard the mosaic and autobiographic interpretations as false, for there is much that is true and valuable in these interpretations. I do think that Descartes' principal reason for writing the *Discours* was to disclose the plan of his system of philosophy. As a plan, I also think that the *Discours* has important secondary features that are emphasized in the mosaic and autobiographic interpretations. First, the *Discours* is, in part, a description of early treatises (at the least, the *Regulae*, *Traité de métaphysique*, and *Le monde*, if not his *Histoire*), which he planned to publish independently. Second, the preface is written as an autobiography to rhetorically capture his audience. These two aspects of the *Discours*, however, were not the fundamental purpose of the publication.

VI. The Problem of the *Discourse*

If we take the *Discours* as a plan to construct a universal science, we can provide an alternative response to the problem of the *Discours*. The present interpretation provides an explanation of the order of the *Discours*. It, in part, was arranged according to the epistemic order of subjects in his emerging philosophical system. In the late 1620s and early 1630s, Descartes began developing his explanation

⁸³ For an alternative view, see Schuster, *Descartes-Agonistes*, pp. 265-299.

of the interconnectedness of the sciences, his system according to the order of reasons. The "Galileo affair," however, resulted in him suppressing his general system, which, likewise, resulted in him publishing specimens of his philosophy: the *Meteors* and *Dioptrics*, along with the *Géométrie*, which, he claimed, was also a result of his method. In addition to this material, Descartes wanted the public to be aware of the foundations of the branches of his philosophy.⁸⁴ For this reason, he published the "plan" of his philosophy, the *Discours*, which he originally titled:

The Plan of a Universal Science which is capable of raising our Nature to its Highest Degree of Perfection, together with the Optics, the Meteorology, and the Geometry, in which the Author, in order to give proof of his universal Science, explains the most abstruse Topics he could choose [...].⁸⁵

The preface divulged a portion of his metaphysics, physics, and physiology in Parts IV and V, along with an explanation, in Part VI, as to why he published the *Discours* and, more importantly, how his foundations were connected to the *Essais*. This, on whole, was the substance of Descartes' "plan," and the reason why he claimed that parts of his *Discours* were interconnected, in some loose sense, and that his early philosophy, though drafted in independent treatises, was written according to the order of reasons. For Descartes, there was an implicit order to Parts IV and V and the *Essais*, which was the essence of his emerging system that he suppressed because of threat of condemnation.

However, he thought his preface needed to do more than sketch his foundations. For this reason, Descartes devised rhetorical techniques (inspired by Jean-Louis Guez de Balzac and Francis Bacon) to entice the public to demand his heliocentric physics and his anti-Scholastic metaphysics.⁸⁶ He seemed to model his *Discours*, in a general sense, on Bacon's "plan" in his *Instauratio magna*. The following is Bacon's proposed order: (Part I) the division of the sciences, (Part II) the new organon, (Part III) towards the foundation of philosophy through experimental history, (Part IV) the ladder of the intellect, (Part V) suspension of judgment on past non-methodical conclusions, and (Part VI) practical science. Although there are obvious differences, there are interesting similarities with the *Discours*. Descartes included an opening (Part I) on the division of the sciences, a description (Part II) of his philosophical method (his New Organon), and a description of his provisional morality (Part III). It seems that, in 1636, Descartes' tactic was to adopt the general Baconian model in presenting his philosophy and adapt it to his own purposes. With this

⁸⁴ End of May 1637 to Mersenne, AT I 367-368; CSMK III 57 and End of May 1637 to an unknown correspondent, AT I 370; CSMK III 58.

⁸⁵ March 1636 to Mersenne, AT I 339; CSMK III 51.

⁸⁶ See fn. 84.

model, he could now selectively describe the parts of his philosophy without threat of condemnation. He could, likewise, claim that there was an epistemic connection between his metaphysics, physics, and his *Essais* without disclosing it. Similarly, as a Baconian plan, he could center the parts of his philosophy on his method (thus his title, *Discours de la méthode pour bien conduire sa raison, et chercher la vérité dans les sciences*), describe his critique of the Scholastic sciences, and include his late insertion of his provisional morality. It seems that the best explanation of the complex order of the *Discours* is that it was written as a plan for a universal science.

My thesis also provides a response to Gadoffre's inconsistencies. He claimed that Descartes proposed an a priori method in Part Two of the *Discours* where he reduced complex questions to simple propositions that are intuitible and then deduced answers to the complex propositions. However, in Part Six, Descartes described a hypothetico-deductive method, the method of the *Dioptrics* and *Meteors*, where he began with assumptions and proceeded to what he thought were deductions. In response, my thesis holds that the *Discours* as a plan contained a single method, one where Descartes generally described his reduction of all knowledge to the cogito and then provided a very general sketch of his deduction of his physics, physiology, meteorology, and optics. This thesis, of course, is in tension with the prevailing view that Descartes dropped his method in the late 1620s.⁸⁷ In fact, John Schuster has provided a plausible reconstruction of how Descartes most likely discovered the law of refraction using traditional practices in geometrical optics, not the method of the *Regulae* or *Discours*.⁸⁸ Descartes, however, thought that his method was, or should have been, an important part of his scientific investigation, for he interpreted his discovery of the law in terms of his method in Rule VIII of the *Regulae*. For Schuster, Descartes' recourse to method was deception, pure rhetoric, for method played no role in his scientific investigations.⁸⁹ While this may be true, I, on the other hand, hold that Descartes thought that his method was an important part of his development of his philosophy, for the method showed how knowledge was interconnected. The method was used to weave together the lattice structure of human knowledge, and I think that Descartes

⁸⁷ Daniel Garber, *Descartes' Metaphysical Physics*, chapter 2; Gaukroger, *Descartes: An Intellectual Biography*, pp. 111-124, 152-181; John A. Schuster, "Descartes' Mathesis Universalis: 1626-1628", in *Descartes: Philosophy, Mathematics and Physics*, Brighton, Harvester Press, 1980; Jean-Paul Weber, *La constitution du texte des Regulae*, Paris, Société d'édition d'enseignement supérieur, 1964, pp. 81-108. For an alternative view, see Beck, *The Method of Descartes*; Roger Florka, "Problems with the Garber-Dear Theory of the Disappearance of Method," *Philosophical Studies* 117, pp. 131-141; Schouls, *The Imposition of Method*; Van de Pitte, Fredrick, "The Dating of Rule IV-B in Descartes' *Regulae ad directionem ingenii*," *Journal of the History of Philosophy* 39, 3, pp. 375-95.

⁸⁸ Schuster, *Descartes-Agonistes*, pp. 184-221.

⁸⁹ Schuster, *Descartes-Agonistes*, pp. 265-303.

thought this was an important feature of his theoretical philosophy, not just an act of methodical deception. This thesis, however, is much too broad for the present paper. For this reason, I limit my present focus to Gadoffre's concerns: an explanation as to why there appears to be two methods in the *Discours*, one deductive and the other hypothetical.

On my interpretation, the *Discours* only seems to have two methods because Descartes drafted it as a "plan" for his universal science where he separated his foundations (his controversial physics and metaphysics) from his *Dioptrics* and *Meteors*. In 1633, Descartes had a very rough system underway drafted in independent treatises that began with metaphysics and aimed to deduce his physics, physiology, optics, and meteorology. As I have told, he could not publish this system because of threat of condemnation for his heliocentric astronomy. For this reason, he chose in 1635 to publish his *Dioptrics* and *Meteors* as specimens of his philosophy, along with a preface that provided a broad outline, a plan, which was a general description of his foundation for the sciences. In his plan, he briefly described the type of science he was going to further develop. However, his choice to separate his optics and meteorology from his foundations resulted in him beginning these essays with assumptions, not indubitable intuitions, as the method of Part Two required. His intent, however, was to publish these scientific works along with the foundations, what he construed to be a deduction. Descartes thus published his system in the *Discours* in a mutilated form, as he promised he would not do in late 1633.⁹⁰ The assumptions of the *Dioptrics* and *Meteors* were dependent on Parts IV and V of the *Discours*, which was a sketch of early philosophy. Descartes explained in Part VI, "And I have called them 'suppositions' simply to make it known that *I think I can deduce them from the primary truths I have expounded above.*"⁹¹ Descartes, moreover, used experimentation in his *Dioptrics* and *Meteors*. He, however, explained in Part VI of the *Discours* that experimentation was done after discovering foundational principles in metaphysics and physics and was used to aid in the discovery of an intuition or deduction. His theory of experimentation thus links the outer branches of his philosophy with his foundations in the *Discours*. Moreover, as Garber has shown, Descartes' theory of experimentation is consistent with his methodical conception of intuition and deduction.⁹² For these reasons, I hold that Descartes wrote the *Discours* with a single method in mind.

⁹⁰ End of November 1633 to Mersenne, AT I 270; CSMK III 41.

⁹¹ AT VI 76; CSM I 150, emphasis added. Also see February 22, 1638 to Vatie, AT I 563; CSMK III 87; AT VII 302; CSM II 397.

⁹² Daniel Garber, "Descartes and Method in 1637", in *Descartes Embodied: Reading Cartesian Philosophy through Cartesian Science*, Cambridge, Cambridge University Press, 2001, pp. 33-51.

As well, my interpretation of the *Discours* as a “plan” for a universal science resolves the inconsistency concerning Descartes’ advocacy of Stoicism. Gadoffre claimed that Descartes had a negative evaluation of Stoic morality in Part One. However, Gadoffre explained that when we turn to Part Three, Descartes had changed his mind, for the third maxim of his provisional morality seems to be inspired by Stoic morality. Then, in Part Six, he completely ignored his Stoic maxim, now making claims that were outside of his control. I agree with Gadoffre that Descartes gave a negative evaluation of Stoic morality in Part One of the *Discours*. His argument was explicitly against the “ancient pagans,” but it is clear that this included the Stoics.⁹³ However, I deny Gadoffre’s claim that Descartes advocated Stoic morality in Part Three, for if the *Discours* was a plan for a universal science, the final text would have had a consistent position on Stoicism. Gadoffre’s claim was that Descartes’ third maxim was borrowed from Seneca. In some sense, this is true. Descartes most likely was introduced to the maxim through his early studies in La Flèche, so he was inspired by ancient philosophers. This, however, did not mean that Descartes believed the maxim because of the Stoic’s or Seneca’s authority, for Descartes explicitly argued in the *Discours* that an appeal to external authorities violated his definition of knowledge. It seems that, according to Descartes’ method, he would adopt his third maxim based on his own authentic reasons, even if someone else stated them. For example, this was his tact in his heated disagreement with Isaac Beeckman.⁹⁴ Moreover, in Descartes’ correspondence on ethics with Princess Elizabeth, he told that his views on the supreme good and the end of our actions agreed more with Epicurus than Zeno or Aristotle.⁹⁵

There is also evidence to conclude that Descartes did not violate his third maxim in Part Six. The maxim suggested that he should not desire objects that were not within his control. The question is whether Descartes thought that the discovery of the causes of innumerable diseases and the elimination of the infirmity of old age, as he proposed in Part Six, were within his control.⁹⁶ At first glance, Descartes’ readers would surely think that such objects were not within his control and, indeed, they were not, for he died at the age of 54. Descartes, moreover, affirmed this claim in his letters. He told Princess Elizabeth that “honors, riches and

⁹³ AT VI 7-8; CSM I 114. Descartes did not explicitly name the Stoics, but refers to the “the moral writings of the ancient pagans,” possibly any ancient school (AT VI 7-8; CSM I 114). Gilson claimed that Descartes’ was referring to Stoicism in general, and Seneca in particular, which Descartes studied at La Flèche. See Gilson, *René Descartes. Discours de la méthode, texte et commentaire*, p. 130. However, Curley suggested that the Stoics were not the only ancient school that condoned suicide. See Curley, “Cohérence ou incohérence du *Discours*,” p. 49.

⁹⁴ October 17, 1630 to Beeckman, AT I 158-165; CSMK III 26-28.

⁹⁵ August 18, 1645 to Princess Elizabeth, AT IV 275-277; CSMK III 261-262.

⁹⁶ AT VI 62; CSM I 143.

health" do not depend on us, and that I should not wish to be well when I am presently sick.⁹⁷ However, Descartes thought that such objects were potentially in his control, at least, in some long-term future sense. Of course, once we have a life-threatening illness, as Descartes did in 1650, the affair is out of our hands. However, Descartes thought that his research in physics, physiology, and medicine suggested that understanding the mechanics of the body could reasonably be within our control with future scientific progress. He thought that he had discovered the laws of physics chosen by God, which necessitated the formation of the universe and, potentially, the generation of the human body. This, of course, is not to claim that Descartes thought he had mastered the laws of nature. In fact, he thought there were many problems with his physiology in *L'homme*, and his general attempt to develop a theory of medicine. Despite this, there is evidence that Descartes thought the cure of diseases was potentially within the limits of reason.

First, in the *Conversation with Burman (Responsiones Renati Des Cartes...)*, Frans Burman presented the exact passage from Part Six that was cited by Gadoffre to Descartes. He claimed to Burman that prolonging human life is potentially within human reason. He wrote,

[...] *it should not be doubted that human life could be prolonged, if we knew the appropriate art. For since our knowledge of the appropriate art enables us to increase and prolong the life of plants and such like, why should it not be the same with man?*⁹⁸

In fact, an indubitable system of medicine was what he sought in the *Le monde*, as he explained in 1630 that he aimed for a "system of medicine which is founded on infallible demonstrations."⁹⁹ Of course, he did not get very far with these aims. However, in 1637 and, perhaps, much later, he thought that his investigations would possibly benefit the public. For he had apparently studied botany, as he explained in Part V of the *Discours*, and it is plausible that he similarly thought that the human life could be prolonged like that of plants.

Second, Descartes explicitly connected his third maxim to his desire to lessening the infirmity of old age in his 1647 *La description du corps humaine*. He wrote,

There is no more fruitful exercise than attempting to know ourselves. The benefits we may expect from such knowledge *not only relates to ethics*, as many would initially suppose, but also have a *special importance for medicine*. I believe that we would have been able to find many very reliable rules, both for *curing illness* and for *preventing it*, and even for the *slowing down the aging process*.¹⁰⁰

⁹⁷ August 4, 1645 to Princess Elizabeth, AT IV 264-266; CSMK III 257-258.

⁹⁸ AT V 178; CSMK III 353.

⁹⁹ January 1630 to Mersenne, AT I 105; CSMK III 17.

¹⁰⁰ AT XI 223; CSM I 314; emphasis added.

Descartes, then, must have thought that it was reasonable within his future capacity or, at least, future generations to cure innumerable diseases and lessen the ills of the aging process. For this reason, his comments in Part VI of the *Discours* are surely not a blatant inconsistency.