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Self-Moving Machines and the Soul: Leibniz Contra Spinoza on the Spiritual Automaton
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Abstract

The young Spinoza and the mature Leibniz both characterize the soul as a self-moving spiritual automaton. Though it is unclear if Leibniz's use of the term was suggested to him from his reading of Spinoza, Leibniz was aware of its presence in Spinoza's *Treatise on the Emendation of the Intellect*. Considering Leibniz's staunch opposition to Spinozism, the question arises as to why he was willing to adopt this term. I propose an answer to this question by comparing the spiritual automaton in both philosophers. For Spinoza, the soul acts as a spiritual automaton when it overcomes imaginative ideas and produces true ideas. For Leibniz, the soul acts as a spiritual automaton when it spontaneously produces its perceptions according to the universal harmony preestablished by God. Thus, for Leibniz contra Spinoza, the spiritual automaton is a means to render intelligible a providential order in which everything happens for the best.

*Introduction*¹

Leibniz characterizes the soul as a "spiritual," "formal," or "incorporeal" automaton in several texts of his mature period including the *New System of the Nature and Communication of Substances* (WFN 18-19/GP.IV 485), *Theodicy* (TJ52/GP.VI 131, TJ403/GP.VI 356), and *Monadology* (AG 215/GP.VI 609-610). Leibniz compares the soul to a self-moving machine in order to capture the soul's spontaneous production of perceptions. For instance, in explaining the hypothesis of preestablished harmony in the *New System*, Leibniz writes:

For why could not God give to a substance at the outset a nature or internal force which could produce in it in an orderly way (as in a *spiritual or formal automaton, but a free one*, in the case of a substance which is endowed with a share of reason) everything that is going to happen to it, that is to say, all the appearances or expressions it is going to have, and all without the help of any created thing? (WFN 18-19/GP IV 485)

For Leibniz, just as a mechanical automaton moves itself through a predetermined series of motions according to the disposition of its parts, the spiritual automaton spontaneously produces, without any external influence, a series of perceptions according to the nature God gives to it.²

Leibniz's comparison of the soul to an automaton is noteworthy, in part, because Spinoza had likewise dubbed the soul a "spiritual automaton" in §85 of the *Treatise on the Emendation of the Intellect* (TIE), an early unfinished work that Leibniz read in 1678 when it was first published as part of Spinoza's *Opera Posthuma*.³ Although seventeenth century philosophers frequently understood living bodies as mechanical automata,⁴ Leibniz and Spinoza stand out for both extending this mechanical idea to the operations of the soul. That the "spiritual automaton" appears in the works of both philosophers has not escaped the notice of commentators,⁵ several of whom have

suggested that Leibniz's use of the term was inspired by Spinoza's example. For instance, Georges Friedmann proposes in his classic study *Leibniz et Spinoza* that even if Spinoza had no theoretical influence on Leibniz in this regard, that Leibniz's use of the term results from his syncretic tendency to appropriate tools from competing philosophers (Friedmann 1946, 199-200). More recently, Richard T. W. Arthur writes: "[a]lthough dismissive of Spinoza's identification of the mind with the idea of the body, Leibniz was very much taken with his conception of the mind or soul as a *spiritual automaton*" (Arthur 2014, 112).⁶

The claim that Leibniz followed Spinoza's lead in conceiving of the soul as a spiritual automaton raises an interpretive puzzle. Although Leibniz sought to reconcile multiple philosophical perspectives in his philosophy,⁷ it is no secret that he was also a staunch critic of Spinoza (for instance, as Arthur notes, Leibniz rejected Spinoza's view that the mind is the idea of the body),⁸ and denied the presence of any Spinozistic elements in his own philosophical system.⁹ Furthermore, Leibniz does not credit Spinoza for this coinage or otherwise draw attention to the spiritual automaton's appearance in the TIE when he himself uses it in texts written for public consumption like the *New System* or *Theodicy*. Nor does Leibniz present his own version as a stronger or otherwise improved version of Spinoza's original, as he does, for instance, in adapting Cudworth's notion of "plastic nature" for his own purposes (L 589/GP VI 544).¹⁰ In light of these considerations, we might wonder if Leibniz even remembered that he had seen the term in the TIE when composing these works.¹¹ In short, how should we understand Leibniz's willingness to use the term given its association with Spinoza?

In this paper, I propose an answer to this question on the basis of a systematic comparison of the spiritual automaton in both Leibniz and Spinoza.¹² I first examine the role played by the spiritual automaton in Spinoza's TIE and then analyze two texts in which Leibniz comments on Spinoza's account of the spiritual automaton.¹³ The first passage is found in the notes Leibniz took in 1678 while reading Spinoza's *Opera Posthuma* (A.vi.4 1757-8) and proves that Leibniz noted Spinoza's usage of the term at this time. More significant is a passage from the text known as the *Animadversiones ad Wachteri librum* (AG 279/LW 11-12) composed at some point between 1707 and 1709.¹⁴ Here Leibniz criticizes Spinoza's version of the spiritual automaton and employs his own version of the concept to help articulate his alternative providential vision of nature. These texts clearly show that Leibniz took an interest in Spinoza's formulation of the concept in the TIE on at least two occasions, and that in the period of 1707-1709 he found it both theoretically and practically deficient. They do not, however, provide conclusive evidence that Leibniz consciously borrowed the term from Spinoza, and it is possible that, when Leibniz first introduces the concept in the

New System of 1695, he did not recall Spinoza's use of the term in the TIE. The *Animadversiones* does show that Leibniz appraised Spinoza's version of the spiritual automaton shortly before using the term in the *Theodicy* of 1710. It is also clear that when Leibniz calls the soul a spiritual automaton in the *Animadversiones*, he sees himself doing so in a markedly different way from Spinoza, and indeed as a means to resist Spinozism. I therefore conclude that when Leibniz employs the concept of the spiritual automaton in texts of his final years such as the *Theodicy* and *Monadology* despite its association with Spinoza, Leibniz formulates it in such a way that it serves as a theoretical tool furthering his general opposition to Spinozism.

The Spiritual Automaton in Spinoza's Treatise on the Emendation of the Intellect

In the TIE, Spinoza outlines a method for purifying the intellect and seeking the truth. Spinoza's goal, as he tells us in the autobiographical opening to the text, is the acquisition of the true good, namely what he calls "knowledge of the union that the mind has with the whole of nature" (TIE ¶13/S 11). By contrast with limited goods such as wealth, sensual pleasure, and fame, Spinoza believes that knowledge of the mind's union with nature provides stable and lasting happiness. The extant portions of the text outline two parts of the method, namely the way to distinguish true ideas from false and the way to develop true ideas.¹⁵ The spiritual automaton appears at TIE ¶85, near the end of Spinoza's discussion of the first part of the method. This section outlines Spinoza's presentation of his method and explains the role that the spiritual automaton plays within it. I develop an interpretation of the spiritual automaton by contrasting it with Spinoza's negative description of skeptical philosophers as mindless automata, and I will show that Spinoza compares the soul to a spiritual automaton as a way of representing the nature of the intellect as it produces true ideas of nature, thereby realizing the aims of the method.¹⁶

Spinoza asserts two claims regarding true ideas at the outset of the methodological discussion of the TIE. Spinoza maintains that we possess a true idea (TIE ¶33/S17) and that a true idea brings with it its own certainty (TIE ¶35/S18). Commentators have long been puzzled by these two claims.¹⁷ What does seem clear, however, is that both commitments aim to circumvent skeptical worries regarding our access to true ideas. Indeed, as several commentators have suggested, they implicitly take aim at the methodological skepticism of Descartes, according to whom we ought first to doubt our ideas and then attempt to validate them through external criteria such as the clarity and distinctness with which we perceive them.¹⁸ If Spinoza is right, however, the claim that we possess a true idea indicates that we do not have to go hunting far and wide for a true idea with which to begin our epistemic inquiry.

Rather, we start already equipped with an idea upon which to build and purify our intellects. Second, if Spinoza is right and the truth brings with it certainty and is in some sense the sign of itself, then we do not need any extrinsic criteria to validate a given true idea. Spinoza thus recommends that the skeptical reader bear with him, as the properly ordered investigation of nature on the basis of a given true idea will provide its own certainty:

If, by chance, someone should ask why I did [not] immediately, before anything else, display the truths of Nature in that order — for does not the truth make itself manifest? — I reply to him [...] and at the same time I warn him not to try to reject these things as false because of Paradoxes that occur here and there; he should first deign to consider the order in which we prove them, and then he will become certain that we have reached the truth; and this was the reason why I have put these things first. (TIE ¶46/S 21-22)

In sum, Spinoza's method presupposes that we possess a true idea, and that by properly building on this given true idea, we *eo ipso* avoid skeptical doubt.

Spinoza tells us that the first part of the method is to distinguish true and false ideas in virtue of their respective sources. To this end, he identifies four possible sources: reports or things heard, sensory experience, inferences from the nature of something, and deductions that follow immediately from a thing's essence (TIE ¶19/S 12-13). The first two possible sources are external to the mind, and consequently bring about false ideas. The latter two sources are internal to the mind and represent its ability to form ideas according to its own laws. While Spinoza associates external sources of ideas with falsehood, he argues that true ideas emerge as a result of the ability of the mind to operate according to the internal laws of its nature.

The distinction Spinoza traces between false ideas that result from external sources and true ideas that result from internal ideas corresponds to his distinction between the imagination and the intellect. Imaginative ideas arise from the first two sources and are the product of chance encounters with external bodies. These ideas can be false because they do not supply us with a clear and distinct knowledge of their cause, since that cause remains external to us:

“In this way, then, we have distinguished between a true idea and other perceptions, and shown that the fictitious, the false, and the other ideas have their origin in the imagination, i.e., in certain sensations that are fortuitous, and (as it were) disconnected; since they do not arise from the very power of the mind, but from external causes, as the body (whether waking or dreaming) receives various motions...” (TIE ¶84/S 36-7).¹⁹

False ideas result from fortuitous impressions we receive through the imagination of external bodies. Although we are acquainted with the effects that such impressions have on our bodies, they do not provide us with knowledge of their causes.

Spinoza associates true ideas with the activity of the intellect as it infers and deduces the consequences from given clear and distinct ideas.²⁰ By means of its own true ideas, then, the intellect is able to reproduce the formal character of its object: “The aim, then, is to have clear and distinct ideas, i.e., such as have been made from the pure mind, and not from fortuitous motions of the body. And then, so that all ideas may be led back to one, we shall strive to connect and order them so that our mind, as far as possible, reproduces [referat] objectively the formal character of nature, both as to the whole and as to the parts” (TIE ¶91/S 38). If the overall goal of the method is to produce happiness through clear and distinct ideas of nature, then Spinoza wants to pursue true ideas as much as possible. We attain such ideas by building on the true ideas we already possess. If the intellect begins purified of the influence of the imagination, and only infers that which follows from its own true ideas, the intellect does not err in objectively reproducing the order of nature.

Spinoza’s picture of intellectual activity as a process that unfolds according to the internal laws of the intellect is based upon three commitments regarding true ideas. First, Spinoza argues that *simple* ideas are necessarily true. An idea is true provided we only affirm of a thing that which belongs to its concept. For instance, I have a true idea of a unicorn provided I think only of a horse with one horn.²¹ If an idea is simple, it cannot contain anything extraneous and, hence, it cannot be false: “So falsity consists only in this: that something is affirmed of a thing that is not contained in the concept we have formed of the thing, as motion or rest of the semicircle. From this it follows that simple thoughts cannot but be true... Whatever they contain of affirmation matches their concept, and does not extend itself beyond [the concept]. So we may form simple ideas at will, without fear of error” (TIE ¶72/S 32). Second, a true idea represents the causal genesis of its object. Thus, at TIE¶96, Spinoza claims that the true definition of a circle explains its essence by defining a circle as follows: “it is the figure that is described by any line of which one end is fixed and the other movable” (TIE ¶96/S 40). Third, a true idea recreates the formal nature of its object. In other words, mental ideas interact with other ideas just as their objects interact in reality: “Moreover, the idea is objectively in the same way as its object is really... those things that do interact with other things (as everything that exists in Nature does) will be understood, and their objective essence will also have the same interaction, i.e., other ideas will be deduced from them, and these again will interact with other ideas...” (TIE ¶41/S

20). Positing these characteristics of true ideas allows Spinoza to claim that the soul can successfully reproduce the order of nature— provided we start with a given true idea. In each case, the intellect builds upon the content of an idea, to deduce what follows from it.

Spinoza contrasts two types of automata as a way of illustrating his distinction between the imagination and the intellect. Spinoza likens the skeptic who does not believe that she has a true idea to “automata, completely lacking a mind” (TIE ¶48/S 22). Here Spinoza plays on the notion of an automaton as a machine that moves itself without being self-aware. Spinoza holds that if a skeptic claims to lack an initial true idea of nature, that skeptic fails to understand the contents of their own mind. He writes that the skeptic “will speak contrary to his own consciousness, or we shall confess that there are men whose minds also are completely blinded, either from birth, or from prejudices, i.e., because of some external chance. For they are not even aware of themselves” (TIE ¶47/S 22). For Spinoza, this form of skepticism derives from a mind dominated by external causes. These minds lack clear and distinct knowledge of what causes their own ideas. The skeptic is therefore like an automaton that lacks understanding of the world and the causes determining its motion.

Spinoza does not call the skeptic a ‘mindless automaton’ to claim that the skeptic lacks any sort of internal life or consciousness.²² Though his usage connects with the familiar sense of an automaton as a machine that lacks consciousness, the skeptic does have an internal life. The problem is that her mind is dominated by fortuitous encounters and imaginative ideas. What is therefore characteristic of the skeptic is a lack of adequate *self-knowledge*, and, in this regard, it is as if the skeptic is dreaming with open eyes.²³ For Spinoza, knowledge of an effect involves knowledge of its cause.²⁴ Since the skeptic-automaton’s actions are dictated by external and contingent bodily encounters, it lacks adequate knowledge of what causes it to act in particular ways, and hence lacks knowledge of its own nature.

As opposed to the skeptic-automaton, we act as a spiritual automaton when we are able to correct the influence of the imagination and produce true ideas. As we have seen, here the intellect acts on its own power to produce true ideas of nature from the basis of a given true idea. The intellect’s deductive operations take place according to laws of inference and hence can unfold “automatically.” In this way that soul acts like a spiritual automaton. Further, this automaton is “spiritual” rather than “completely lacking a mind” insofar as it is aware of its own power and produces its ideas according to its own laws, not those of fortuitous encounters: “We have shown that a true idea is simple, or composed of simple ideas; that it shows how and why something is, or has been done; and that its

objective effects proceed in the soul according to the formal nature of its object. This is the same as what the ancients said, i.e., that true knowledge proceeds from cause to effect — except that so far as I know they never conceived the soul (as we do here) as acting according to certain laws, like a spiritual automaton...” (TIE ¶J85/S 37). Once again, Spinoza does not invoke the notion of an automaton – in this case a “spiritual” one – to claim that the entity in question lacks an inner life or consciousness. Rather, when the soul acts as a spiritual automaton, it is like an automaton in the sense of acting efficiently according to a lawful series or progression. In this case, the intellect traces a particular series of causal and explanatory relations according to laws of proper inference. It therefore reproduces objectively in the mind that which exists formally in reality. As opposed to the imaginations of the skeptic qua mindless automaton who experiences natural effects such that they are separated from their causes, the intellectual activity of the spiritual automaton reproduces the causal order of nature by understanding effects on the basis of their causes. This activity requires self-knowledge because the knower understands she possesses a true idea purified of the influence of the imagination. For Spinoza, when the soul functions as a spiritual automaton, it infers, on the basis of given simple ideas, further true ideas in virtue of its own intellectual laws and power.

In the TIE, Spinoza outlines a method for producing true ideas. He distinguishes between ideas arising externally through the imagination and ideas arising internally through the activity of the intellect. Within this context, Spinoza uses two different types of automata to illustrate our different ways of knowing. Spinoza characterizes imaginative knowing through an automaton that moves and acts without thinking. This automaton represents a skeptic moved by external encounters rather than by true self-knowledge. By contrast, Spinoza characterizes intellectual knowing by means of an automaton that moves itself according to its own laws. This form of self-motion requires self-understanding: to move oneself according to one’s nature, one must have knowledge of one’s own causes. From this starting point, the mind can reproduce the formal character of nature. Thus, for Spinoza, the soul acts as a spiritual automaton when the intellect is purified of imaginative ideas and acts to produce true ideas of nature.

Leibniz on the Spiritual Automaton in Spinoza

Leibniz first read the TIE, and therefore first considered the spiritual automaton in Spinoza, at the beginning of 1678, shortly after its publication, along with the *Ethics*, as part of Spinoza’s *Opera Posthuma*.²⁵ At this time, Leibniz was already acquainted with a number of Spinoza’s ideas. Leibniz had first learned of Spinoza as a radical Cartesian and author of a commentary on Descartes’s *Principles of Philosophy*,²⁶ and also read the *Theological-*

Political Treatise at least twice by the mid-1670s.²⁷ Moreover, Leibniz corresponded with Spinoza, discussed Spinoza's philosophy with members of the Spinoza circle,²⁸ and met Spinoza in late 1676.²⁹ Leibniz was quite interested in understanding Spinoza's philosophical work and influence prior to the appearance of the *Opera Posthuma*.

Leibniz indicates that he found the TIE frustrating in a letter to Tschirnhaus in May of 1678: "You will have learned that the posthumous works of Spinoza have appeared. There is among them a fragment On the Improvement of the Intellect, but he stopped just where I most expected something" (L 194/GM.IV 461). Leibniz did, however, excerpt and comment on a number of passages, including TIE §85. He paraphrases Spinoza, writing: "The ancients did not consider, as do we, the soul to act according to certain laws, on the model of a spiritual automaton" (A.vi.4 1758, my translation).³⁰ Leibniz's version changes Spinoza's "*et quasi aliquod automa spirituale*" to "*ad instar automati spiritualis*,"³¹ In other words, instead of acting like a spiritual automaton, Leibniz's paraphrase has the soul acting on the model of a spiritual automaton. Leibniz also adds the following comment: "The operations according to which imaginations are made clearly follow other laws than intellections, and concerning the imagination the soul has only the manner of the patient [*et anima circa imaginationem habet tantum rationem patientis*]" (A.vi.4 1758, my translation). Though Leibniz's comments do not provide insight into Leibniz's evaluation of Spinoza's claim that the soul acts as a spiritual automaton, they do allow us to draw two conclusions. First, they confirm that Leibniz noted Spinoza's use of the term during his reading of the *Opera Posthuma*. Second, it is clear that he was interested in Spinoza's distinction between the active intellect and the passive imagination, and recognized that they function according to independent sets of laws.

We can gain further understanding of how Leibniz viewed Spinoza's account of the soul at this time by examining his comments on Spinoza's theory of mind in the *Ethics*. Specifically, Leibniz rejected Spinoza's claim from part two of the *Ethics* that the mind is the idea of the body. For Leibniz, ideas are not things, but rather dispositions to think of a particular thing.³² In his view, Spinoza's claim that the mind is the idea of the body therefore commits a category error: since ideas are dispositions they are not themselves capable of acting in the way that Spinoza claims the mind acts. Further, the claim misidentifies the object taken by the mind. According to Leibniz, the mind is a unique perspective or point of view on the world. On Leibniz's account, the mind's object is the entire world, not merely the body. Thus, upon reading EIIP2, "Whatever happens in the object of the idea constituting the human Mind must be perceived by the human Mind, or there will necessarily be an idea of that thing in the Mind; i.e. If the

object of the idea constituting a human mind is a body, nothing can happen in that body which is not perceived by the Mind” (S 456-457), Leibniz makes the following marginal note: “Ideas do not act. The mind acts. In reality the whole world is the object of each mind, the whole world is perceived in a certain way by any mind. The world is one and yet minds are diverse. The mind therefore does not exist as the idea of the body, but because God intuits the world in various modes as I intuit a city” (A.vi.4 1713, my translation). Leibniz likely had similar concerns about Spinoza’s claim that the intellect actively produces its ideas in the TIE. If the soul is an idea, then the intellect would not be able to do anything actively at all. Thus, for Leibniz, Spinoza’s claim in the TIE that the soul *acts* as a spiritual automaton would be just as problematic as the view that the mind is the idea of the body found in the *Ethics*.

LEIBNIZ returns to TIE ¶85 three decades later in the *Animadversiones ad Wachteri librum* of 1707-1709. At this point, Leibniz has already adopted the notion of the spiritual automaton to capture the nature of the soul in the *New System* of 1695. There, the spiritual automaton helped illustrate how the soul spontaneously produces its perceptions of the soul alongside the motions of the body according to the preestablished harmony (WFN 18-19/GP IV 485). In the *Animadversiones*, Leibniz comments on Johann Georg Wachter’s reading of Spinoza in the *Elucidarius Cabalisticus*, and criticizes both Spinoza’s account of the spiritual automaton as well as Wachter’s reading of the concept in Spinoza. For Wachter, Spinoza’s philosophy reflected the Cabala, which he defends against the charge of pantheism.³³ In the *Animadversiones*, Leibniz suggests that Spinoza’s philosophy actually represents a corrupted form of Cabalistic teaching. Whereas for Leibniz the Cabala, properly understood, is compatible with Christianity and true religion, Spinoza’s philosophy is emphatically not.³⁴

Regarding Spinoza’s invocation of the spiritual automaton in TIE ¶85, both Wachter and Leibniz take Spinoza’s characterization of the soul as an automaton to mean that Spinoza thinks external bodies determine the soul. This interpretation leads Wachter to distinguish between the mind and the soul and to claim that the mind lives on after the body’s dissolution whereas the soul does not. Leibniz rejects Wachter’s distinction between soul and mind as well as what he takes to be Spinoza’s view of the soul as something externally determined. Leibniz argues that for the soul to truly act of its own accord, it must act independently of bodies and spontaneously produce perceptions according to its own internal laws. Leibniz’s view thus lies midway between Spinoza’s position as constructed by

Wachter and Wachter's own: for Leibniz, both the soul and the mind³⁵ act as spiritual automata according to determinate laws of their own internal nature.

Wachter reads Spinoza as part of a spiritualist tradition of Cabalistic thought.³⁶ In this light, Wachter argues that Spinoza separates God from the world, rendering finite modes emanations of God rather than parts. Though Wachter's interpretive approach arguably ends up misrepresenting Spinoza's own views,³⁷ it does explain two significant claims that he makes about the spiritual automaton in the TIE. Wachter comments on TIE ¶85 as follows:

[Spinoza] claimed it [the soul] to be a certain spiritual machine, all of whose acts follow according to certain laws of motion; of these, the operations do not follow by the power of the mind or the better part of the human, but by external causes; of these arising from impulses, that is, by fortuitous & unbound sensations, whence the body, whether sleeping or on guard receives various motions, and these communicated by the imagination, are related to the body; and the body is determined to action by imaginative ideas of various modes. And although [Spinoza] himself judges, that no one sensed this before him, adding, "*the ancients never conceived, so far as I know, the soul (as we do here) as acting according to certain laws, like a spiritual automaton*": judging in this way is mistaken, however, because this opinion has much in common with many ancients and more recent authors, especially the Cabalists. (Wachter 1706, 59, my translation)

In commenting on TIE ¶85 Wachter first argues that the soul acts as a spiritual machine, yet not according to the power of the mind [*operationes non a mentis potentia*] (Wachter 1706, 59)]. This claim reflects a distinction between the soul and the mind that Wachter attributes to Spinoza. Specifically, Wachter holds that, for Spinoza, the soul is that part of human thinking that operates according to external causes and things sensed by the body; by contrast, the mind is the rational part of human thinking that is eternal and hence remains after the death of the body.³⁸ Second, Wachter argues that, despite Spinoza's claim to expound a novel view of the soul, his view is actually shared by many others, both ancient and recent. This claim lends weight to Wachter's contention that Spinoza derived his philosophical positions from Cabalistic sources.

Wachter's reading of TIE ¶85 in the *Elucidarius* does distort Spinoza's view of the soul in the TIE. Significantly, Wachter's reading of the passage does not preserve Spinoza's core distinction between intellection and imagination as it pertains to the soul. As we have seen, Spinoza distinguishes imagination and intellect by arguing that the intellect reproduces the causal order of nature, and associated the soul's activity as a spiritual automaton with the intellect. By contrast, Wachter associates the soul with the body's random encounters – what Spinoza had ascribed

to the imagination and the automaton “completely lacking a mind” (TIE ¶48/S 22). In this way, Wachter’s interpretation of the spiritual automaton in TIE ¶85 removes activity and intellection from the soul and renders it a spiritual machine subject to the random experience of the body. Further, in associating the spiritual automaton with the soul but not the mind, it would seem that Wachter does not conceive of the mind or rational part of the human as functioning according to laws as a spiritual automaton. Yet, Spinoza had characterized the soul as a spiritual automaton in TIE ¶85 in order to capture the rational activity of the intellect, or what Wachter evidently thinks of as the mind.

In the *Animadversiones*, Leibniz criticizes Wachter’s account of the spiritual automaton and reprises his earlier criticism of Spinoza’s characterization of the mind as the “idea of the body.” For Leibniz in the *Animadversiones*, a corporeal substance is composed of a soul and an organic body. The organic body is a transitory mass composed of a multiplicity of substances serving as constituent parts. As the body gains and loses constituent parts, however, the underlying substance remains numerically the same: “A corporeal substance has a soul and an organic body, that is, a mass composed of other substances. It is true that the same substance thinks and has extended mass joined to it; but it hardly consists of extended mass since any of those things could be taken away, leaving the substance intact” (AG 275/LW 7).³⁹ Leibniz concludes from his account of body that the soul cannot be defined as the idea of the body. An idea is determined by its object and the body is a transitory organic mass. Thus, if the soul truly were the idea of the body, Leibniz claims, then it could not maintain its identity over time and would become a numerically different soul as the parts of the body change. Writing in reference to the Scholium to part two, proposition thirteen of the *Ethics*, Leibniz claims:

But it is completely alien to every sort of reason that a soul should be an idea. Ideas are purely abstract things, like numbers and shapes, and cannot act. Ideas are abstract and universal: the idea of any animal is a possibility, and it is a mockery to call souls immortal because ideas are eternal, as if the soul of a globe is to be called eternal because the idea of a spherical body is eternal. The soul is not an idea, but the source of innumerable ideas. For, over and above a present idea, the soul has something active, that is, the production of new ideas. But, according to Spinoza, at any given moment, a soul will be different, since, when the body changes, the idea of the body is different. Hence, we shouldn't be surprised if he takes creatures for vanishing modifications. Therefore, the soul is something vital, that is, something that contains active force. (AG 277/LW 9)

For Leibniz, the soul must be something ontologically distinct from an idea. Not only is the soul something active, in this way differing from an abstraction such as an idea, it is also a substance that remains itself over time.

When Leibniz comments on TIE §85 in the *Animadversiones*, he picks up on Wachter's imposition of a distinction between soul and mind. Further, Leibniz rejects both Spinoza's view of the spiritual automaton and Wachter's interpretation thereof. Leibniz writes:

Spinoza says... that the ancients "never, so far as I know, conceived of the soul (as we do here) as acting in accordance with certain laws, like some spiritual automata (he meant to say automaton)." The author [Wachter] interprets this as having to do with the soul alone, and not the mind, and holds that the soul acts in accordance with the laws of motion and external causes. *Both are wrong, for I say that the soul acts spontaneously and yet as a spiritual automaton, and that this is also true of the mind.* The soul is no less exempt from the impulses of external things than is the mind, and it is not the case that the soul acts more determinately than does the mind [Emphasis added]. (AG 279/LW 11)

Leibniz seems to think that the laws according to which Spinoza claims that soul acts cannot, on Spinoza's own terms, belong to the nature of the soul. For Leibniz, this follows from Spinoza's claim that the soul is the idea of the body: if the soul is an idea, it cannot act in the first place. Thus Leibniz contends that if Spinoza were correct, the soul would be exclusively passive and determined by external things. Against Wachter, Leibniz contends that the mind and soul both operate as spiritual automata. For the mature Leibniz, minds are a special class of souls capable of consciously reflecting upon their perceptions and understanding necessary and eternal truths. Minds are thus rational souls.⁴⁰ Leibniz therefore claims that the soul's entire range of perceptive activity, from confused sensation to conscious reasoning, takes place on the model of the spiritual automaton.

Leibniz connects his own theory of the spiritual automaton to God's design and creation of the world. In the *Animadversiones*, he offers a version of the preestablished harmony, contending that bodies move through "laws of power," whereas what happens in souls takes place through "the laws of the good." Further, Leibniz argues that in creating and conserving the world God takes all substances into consideration:

Just as in bodies everything happens through motions in accordance with the laws of power, so too, in the soul everything happens through effort, that is, through desires in accordance with the laws of the good. The two kingdoms are in agreement. However, it is true that there are certain things in the soul that can only be explained in an adequate way through external things, and to that extent the soul depends upon external things;

this happens not through a physical influx, but, so to speak, through a moral influx, insofar as, in creating the mind, God took things other than the mind itself into consideration to a greater extent. For, in creating and conserving each and every thing, God takes all other things into consideration. (AG 279/LW 11-12)

Here Leibniz develops the concept of the spiritual automaton and its connection to the preestablished harmony. First, Leibniz contrasts the laws of the soul/mind with those of the body. Bodies move according to laws of power, while souls move themselves according to their desire for the good. Second, Leibniz outlines a way in which souls are passive and depend on external things. We may call the soul passive to the degree that we explain its actions in terms of what happens externally to it. Nevertheless, Leibniz stresses that this passivity follows from how God has fashioned a substance's internal nature in connection with that of other substances.

In emphasizing God's design of the soul as a spontaneously acting substance, Leibniz also rejects Spinoza's ethical theory. For Spinoza, the notion of the soul as a spiritual automaton exemplified the soul on its journey towards its highest good, i.e. the recognition of its union with nature. In the *Animadversiones*, Leibniz contends that Spinoza asks us to love a God who produces both good and evil according to necessity. In Leibniz's own view, it is better to understand that God has created everything for the best:

Spinoza thinks that the mind can greatly be strengthened if it understands that what happens, happens necessarily. But the mind of the sufferer is not rendered content through this compulsion, nor does it feel its evils any the less on that account. The soul is happy if it understands that good follows from evil, and that what happens is the best for us, if we have wisdom... From these things we can also understand that what Spinoza says about the intellectual love of God (*Ethics* part 4, prop. 28) is only a sop to the masses, since there is nothing capable of being loved in a God who necessarily produces all good and bad indiscriminately. True love of God is grounded not in necessity but in goodness. (AG 280-81/LW 13)

Leibniz's formulation of the spiritual automaton thus provides theoretical support to his optimism. When one recognizes that the soul is a spiritual automaton whose perceptions have been planned by God, one learns that God has arranged these perceptions to unfold in the best way possible. God's crafting of the laws of good that order the perceptions of the soul even extends to the type of confused perceptions that Spinoza had relegated to disordered and imaginative experience. Leibniz compares the soul to an automaton in order to incorporate confused experience into the nature of the soul created by God, thus ensuring that everything that befalls us happens as part of God's plan and not according to necessity.

Conclusion: The Spiritual Automaton in Leibniz and Spinoza

On the interpretation given here, Spinoza introduces the concept of the spiritual automaton in the TIE as part of his ethical project of accessing the highest good. When the soul operates as a spiritual automaton, it produces clear and distinct ideas according to the laws of the intellect. Spinoza thus compares the soul to a mechanical automaton to illustrate how the soul properly deduces true ideas of nature. Spinoza contrasts the workings of the “spiritual automaton” to what happens when the soul is dominated imaginative ideas caused by external encounters. In the latter case, human beings also act like automata, but like automata “completely lacking a mind.” Spinoza’s contrast hinges on whether the automaton in question is internally or externally determined. When the soul acts as a spiritual automaton, the intellect produces true ideas according to its own nature and internal laws.

In Leibniz’s version of the spiritual automaton, the concept provides support for the preestablished harmony as it represents a soul that spontaneously produces its own perceptions in agreement with those of all other substances. Thus, while Leibniz emphasizes internally determined self-motion like Spinoza, his account adds dimensions of mechanical design and providence. The spiritual automaton is thus a means to express how the nature of the soul directly incorporates divine ends. Whereas Spinoza rejects notions of creation and design, Leibniz happily affirms them as theoretically necessary and practically beneficial. Further, unlike Spinoza, Leibniz’s accounts of spontaneity and the spiritual automaton reject any external determination whatsoever, such that the spiritual automaton is responsible for all of our ideas, including those that remain confused and obscure.

The differences between Spinoza and Leibniz’s respective accounts of the spiritual automaton express its flexibility as a conceptual tool and reflect their general philosophical opposition. Metaphysically speaking, the spiritual automaton illustrates Spinoza’s vision of the unity of the mind with nature. It also represents Leibniz’s vision of independent, spontaneously acting substances. Practically speaking, the spiritual automaton provides Spinoza with a model of the mind’s activity as it pursues its highest good while it offers Leibniz a useful means to show us that what happens is always for the best. Whether Leibniz actually borrowed the term from Spinoza or not, his concept of the spiritual automaton runs counter to that of Spinoza, and is indeed engineered such that it helps resist Spinoza’s influence. In this way, the “spiritual automaton” can safely play a role within the context of a Leibnizian philosophical system that claims to be free of all Spinozism.⁴¹

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¹ In addition to those listed by the editor, I use the following abbreviations: **AT** = 1964. *Oeuvres de Descartes*, 12 vols., ed. Charles Adam and Paul Tannery (Paris: Vrin, 1964), cited by volume and page number; **CSM** = *The Philosophical Writings of Descartes*, 3 vols., trans. John Cottingham, Robert Stoothoff, and Dugald Murdoch

(Cambridge: Cambridge University Press, 1984), cited by volume and page number; **LW** = G.W. Leibniz, “J.-G. Wachteri de recondita Hebraeorum philosophia (1706)”, ed. Philip Beeley, in *The Leibniz Review* 12, 1-14; **S** = *The Collected Works of Spinoza, Volume I*, ed. Edwin Curley (Princeton, NJ: Princeton University Press, 1985); **TIE** = Benedictus de Spinoza, *Treatise on the Emendation of the Intellect*, in *The Collected Works of Spinoza, Volume I*, ed. Edwin Curley (Princeton, NJ: Princeton University Press, 1985), 3-45.

² For more on the spiritual automaton in Leibniz, Giglioni (1995) compares Leibniz’s account of the “spiritual automaton” with Boyle’s views regarding mechanical automata; Ishiguro (1998) claims that the term is puzzling and fundamentally opaque; Woolhouse (2010) connects the term to the preestablished harmony and Leibniz’s critique of Descartes on mind-body interaction; Strickland (2014, 73) recognizes its significance for Leibniz’s theory of spontaneity, writing that the spiritual automaton “perfectly captures [Leibniz’s] notion of self-sufficiency;” Noble (2017) highlights the spiritual automaton as an example of Leibniz’s use of conceptual analogies in metaphysics. For recent discussion of Leibniz on spontaneity, see, e.g. Rutherford 2005; Bolton 2013; Jorati 2013, 2015. Of particular interest to these commentators is how to understand Leibniz’s view that substances spontaneously produce painful or otherwise undesirable perceptual states. I do not take a stance on this discussion here other than to note that Leibniz’s characterization of the soul as a “spiritual automaton” indicates that Leibniz also wants to claim that its spontaneous activity is governed by external teleology in the form of God’s preformation and can take place without any conscious intention or deliberation (see T_J403/GP.VI 356). Of these articles, only Rutherford notes Leibniz’s use of the term “spiritual automaton” in relation to the soul’s spontaneity (2005, 157).

³ For Leibniz’s 1678 reading of the *Opera Posthuma* and the TIE, see Lærke 2015. Lærke suggests that Leibniz had hoped the TIE could help him understand Spinoza’s “metaphysics of thought” in the *Ethics*, but that it may have provoked greater confusion regarding Spinoza’s later views.

⁴ Most famously, Descartes held that animals are automata in texts such as the *Discourse on the Method* and *Principles of Philosophy*. For an account of Descartes’s use of mechanical automata to reject late-Scholastic views of living bodies, see Des Chenes 2001. For Leibniz’s views on the mechanical structure of living bodies, see, e.g. Nachtomy 2011; Smith 2011. Serres (1968: 490-511) compares Leibniz and Descartes on automata and stresses Leibniz’s interest in machines like calculators that perform cognitive operations. For a general history of attempts to understand life in mechanical terms, see Riskin 2016.

⁵ Examples include Friedmann 1946, 199-200; Deleuze 1990, 153; Marshall 2013, 4 n.9; Arthur 2014, 112, 183; Morfino 2014.

⁶ Deleuze also claims that Leibniz liked Spinoza’s term (1990, 153).

⁷ See, e.g. Mercer 2002, Hartz 2006, Antognazza 2009, McDonough 2013.

⁸ See, e.g. A.vi.4 1713.

⁹ For Leibniz’s claim that Spinozism is absent from his philosophy, see L 496/GP IV 523. For classic treatments of Leibniz’s relationship to Spinoza, see Stein 1890, Friedmann 1946. More recently, Hart (1982) contrasts their conceptions of substance from a logical point of view. Lærke (2008) painstakingly and authoritatively traces the nature and development of Leibniz’s criticisms of Spinoza. Lærke (2009) outlines Leibniz’s criticisms of Spinoza’s use of philosophical language. Andrault, Lærke, and Moreau (2014) includes a number of articles on the relationship between Spinoza and Leibniz. Rescher (2015) argues that the dispute between Spinoza and Leibniz hinges on Spinoza’s views regarding fictions and unrealized possibilities. Goldenbaum (2007) and Lærke (2008) are particularly helpful on the history of the scholarly treatment of the relationship between Leibniz and Spinoza. Several commentators have suggested that Leibniz’s philosophical positions come close to those of Spinoza in ways that run counter at least to his stated intentions. For instance, Adams (1994) explores whether Leibniz’s views of contingency might bring him close to Spinoza’s necessitarianism. Kulstad (2002a) suggests that Leibniz may adopt a qualified monism that cedes ground to Spinoza while remaining theologically acceptable. Kulstad (2002b) argues that from 1675-76, Leibniz entertained a number of metaphysical proposals based on what he learned about Spinoza from their mutual friend Tschirnhaus. Goldenbaum (2007) rehabilitates Ludwig Stein’s claim that Leibniz had a “Spinoza-friendly period” in the late 1670s. Newlands (2010) argues that Spinoza and Leibniz share an *anti-essentialism* regarding modality that holds that an entity’s modal status varies depending on how it is conceived.

¹⁰ See, e.g. Smith and Phemister 2007; Duchesneau 2015.

¹¹ Leibniz first adopts the term in the *New System* in 1695 (WFN 18-19/GP.IV 485), well after his reading of the TIE. He gives no indication, however, that he has Spinoza in mind at this time. Leibniz also does not bring up Spinoza in passages from the *Theodicy* (T_J52/GP.VI 131, T_J403/ GP.VI 356) and *Monadology* (AG 215/GP.VI 609-610) in which he uses the spiritual automaton.

¹² This type of comparison is still lacking within the literature, even in those commentators who have noted that both philosophers use the term. Deleuze comes the closest when he presents a reading of the spiritual automaton as evidence that Leibniz and Spinoza share three Anti-Cartesian views regarding the mind (1990, 153). Deleuze does

not, however, analyze the differences between each philosopher's respective accounts of the structure of the spiritual automaton. Arthur makes the important point that Leibniz saw his version as differing from Spinoza's insofar as the Leibnizian automaton does not act according to necessity (2014, 183), but does not develop this point in greater depth.

¹³ Since the term "spiritual automaton" does not appear in Spinoza's *Ethics*, my account of Spinoza restricts itself to the TIE. I will not, therefore, discuss the degree to which Spinoza's account of the soul in the TIE is consistent with the later account of the mind in the *Ethics*. Answering this question would require developing an account of the relation between the two texts, a task that is beyond the scope of this paper. I will, however, briefly consider a passage from the *Ethics* that is relevant to Leibniz's interpretation of Spinoza's spiritual automaton. For an account of Spinoza that connects the idea of the spiritual automaton to the science of the mind in the *Ethics* and uses it to develop a theory of consciousness in Spinoza, see Marshall 2013.

¹⁴ The *Animadversiones* was first published by Foucher de Careil as *Refutation inédite de Spinoza* in 1862. For a critical Latin edition, see LW. An English translation of portions of the text bearing directly on Spinoza can be found as 'Comments on Spinoza's Philosophy' at AG 272-281. It is unclear when exactly Leibniz composed the *Animadversiones* after the publication of Wachter's book in 1706. Whereas Ariew and Garber date the text to 1707 (AG 272), Antognazza (2007, 261, n. 32) and Lærke (2008, 923), suggest that it was composed around 1709. For the intellectual context of the *Animadversiones'* discussion of the Christian Cabalism of Johann Georg Wachter, see Beeley 2002; Lærke 2008, 923-972. See Morfino (2014) for an analysis of Leibniz's criticisms of Spinoza in the *Animadversiones*.

¹⁵ For a general commentary on the TIE, see Joachim 1940.

¹⁶ For further interpretations of the spiritual automaton in Spinoza, Klever (1985) uses the spiritual automaton to illustrate Spinoza's philosophy of science; Deleuze (1990) maintains that it captures the way our ideas express God's intellect; Levy (2000) and Schneider (2013) discuss the spiritual automaton's role in Spinoza's critique of skepticism; Malinowski-Charles (2003) argues the spiritual automaton illuminates the passage from the second to the third kind of knowing; Marshall (2013) connects the term to Spinoza's theory of adequate knowledge in the *Ethics*, but does not examine it in its context in the TIE.

¹⁷ For instance, Joachim (1940, 186-87) asks why, if true ideas serve as their own signs, we would need a method for acquiring them? If we had a true idea, wouldn't it immediately dispel all doubt? Garrett (1986) argues that the problem is not in our recognition of true ideas as true, but rather our tendency to let true ideas become obscured by imaginative untruths, fictions, and doubts. Hence a method is needed less to recognize the truth of a true idea, and more as a way of purifying the intellect of imaginative distortions. Nelson (2015) argues that the initial true idea is the idea of God, the absolute simplicity of which fulfills Spinoza's criteria for true ideas. For a recent interpretation of true ideas in the TIE that analyzes each of these criteria in depth, see Morrison 2015.

¹⁸ For accounts that contextualize Spinoza's method in the TIE as a rejection of Cartesian skepticism, see, e.g., Bolton 1985; Klein 2003; Sangiacomo 2015

¹⁹ Spinoza distinguishes several different types of imaginative ideas, including fictions, false ideas, and the experience of doubt. I do not treat these different types of imaginative ideas in detail here. For an account that analyzes them in greater depth, see Garrett 1986.

²⁰ Strictly speaking, Spinoza claims that the knowledge we gain by means of the third source, though true, is insufficient. We cannot err by its means but neither can we gain the desired knowledge of the mind's union with nature (TIE ¶28/S 16).

²¹ For more on Spinoza's early views on truth, see *Metaphysical Thoughts* 1.6. Here Spinoza insists that truth is found in true ideas and only metaphorically in things. Regarding the properties of a true idea, Spinoza claims: "(1) that it is clear and distinct, and (2) that it removes all doubt, or in a word, that it is certain" (S 313). Thanks to Julie R. Klein for pointing out this passage.

²² Spinoza's usage thereby differs from Descartes's in the *Second Meditation*. For Descartes, automata can represent counterfeit human beings insofar as they mimic the behavior of our bodies while lacking an internal mental life (CSM.II 21/AT.VII 32).

²³ It is instructive to compare TIE ¶48 with the Scholium to EIIP29. There, Spinoza claims we only have a confused knowledge of ourselves insofar as we are determined externally by fortuitous encounters. For more on Spinoza's criticisms of the Cartesian skeptic as "dreaming with open eyes," see Klein (2003). Klein also identifies a positive sense of "dreaming with open eyes" when we correctly understand the nature of dreams and other imaginative ideas in the order of nature.

²⁴ Spinoza emphasizes that knowledge involves knowing the cause when he introduces the spiritual automaton in TIE ¶85/S 37. He also makes this point regarding definitions at TIE ¶96/S 39-40.

²⁵ Spinoza's friend Schuller writes to Leibniz in January 1678 (A.iii.1 314) that a copy of the newly published *Opera Posthuma* is en route to him in Hannover. By mid-February, Leibniz had written to both Justel (A.ii.1 592) Placcius (A.ii.1 593) regarding claims made by Spinoza in the *Ethics*.

²⁶ Spinoza appears, for instance, on the list of Cartesian philosophers Leibniz sent in his April 20/30 1669 letter to Thomasius (L 94).

²⁷ Lærke (2008, 94-357) gives an account of Leibniz's interest in the *Theological-Political Treatise*. For details on his readings of the text in late 1670/early 1671 and late 1675/early 1676, see Lærke 2008, 94-116.

²⁸ Kulstad (2002b) argues that Leibniz's understanding of Spinoza's philosophical positions was mediated their mutual friend Ehrenfried Walther von Tschirnhaus.

²⁹ For a comprehensive account of Leibniz's engagement with Spinoza, see Lærke 2008.

³⁰ Spinoza's Latin reads: "Veteres non considerarunt, velut nos, *animam secundum certas leges agere, ad instar automati spiritualis*." The notes that Leibniz takes upon his initial reading of the *Opera Posthuma* as well as excerpted passages can be found at A.vi.4 1705-1764.

³¹ In the *Animadversiones*, Leibniz will claim that Spinoza's text contains an error and that Spinoza meant to write 'automaton' instead of 'automa' (AG 279).

³² For instance, Leibniz writes in *Quid sit Idea* in 1677, just prior to his reading of the *Opera Posthuma*: "An idea consists, not in a certain act of thinking, but rather in a faculty [*Idea enim nobis non in quodam cogitandi actu, sed facultate consistit*]", and we are said to have an idea of something, even if we do not think of that thing, if we can think of it when given occasion to do so" (A.vi.4 1370, my translation).

³³ Wachter's position in the *Elucidarius* of 1706 differs from that of his earlier *Spinozismus im Juedenthumb* of 1699. In the earlier text, Wachter argued that Spinoza as well as the Cabalism from which he claimed Spinoza derived his philosophy were pantheistic.

³⁴ For more on Leibniz and the Cabala see, e.g. Coudert 1995, Lærke 2008, 923-972.

³⁵ In this section, I alternate between soul and mind when appropriate. Spinoza uses the word "soul" ("animam") in connection with the spiritual automaton in the TIE; however in the later *Ethics* he typically speaks of the "human mind" ("mens humana"). Wachter distinguishes soul and mind; the soul is connected with the body and does not survive its dissolution, while the mind continues to exist. For the mature Leibniz, the mind is a special case of soul. Whereas all living things have perceiving souls, the human mind is capable of further acts of self-perception, or apperception. See, e.g., AG 214/GP.VI 608-9.

³⁶ Wachter claims that both the Cabala and Spinoza reject the independent existence of matter, and argue that everything – including extension – is essentially spiritual in nature (Wachter 1706, 46-47).

³⁷ For more on how Wachter reads Spinoza in general, including his importation of a form of emanation into Spinoza, in the *Elucidarius*, see Lærke 2008, 938-43.

³⁸ Wachter draws this distinction between the mind and the soul on the basis of Spinoza's claim at *Ethics* part five, proposition twenty-three that "The human Mind cannot be absolutely destroyed with the Body, but something of it remains which is eternal" (S 607). In the demonstration and Scholium to this proposition, Spinoza maintains that despite the fact that part of our mind is eternal, we cannot remember anything prior the existence of our body. Further, being eternal, this part is not conceived under the aspect of duration except while the body endures. Wachter thus identifies the "mind" as the "rational part, the rational, eternal and immortal part of man" ["*MENTE, quae est ipsa ratio, seu pars rationis, aeterna & immortalis hominis pars*"] (Wachter 1706, 58). By contrast, Wachter associates the "soul" with those aspects of human mental life that are connected with bodily existence including memory, the senses, and the imagination ["*ANIMA, ad quam referuntur omnes ideae imaginationis, recordationis, & sensuum, quibus actualis existentia mentis in corpore mensuratur*"] (Wachter 1706, 58).

³⁹ I do not take a stance on the topic of Leibniz's ontology of bodies other than to note that in the *Animadversiones*, Leibniz characterizes the organic body of a substance as a mass composed of other substances. For a classic idealist reading according to which bodies are phenomena, see Adams 1994. Garber (2009) argues that Leibniz moves from realism to idealism about bodies over his career. Phemister (2005) and Smith (2011) argue that Leibniz is a realist about bodies throughout his life. For the broader philosophical and intellectual significance of Leibniz's account of "organic" body, see Smith 2011.

⁴⁰ Leibniz uses the first criterion to distinguish minds from souls more generally in *Monadology* ¶14 (AG 214/GP.VI 608-9). He uses the second at *Monadology* ¶29 (AG 217/GP.VI 611).

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