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## René Descartes: Dancing and Mustering Substances

### Summary

This article addresses two of the fundamental issues present in the philosophy of René DESCARTES (1596–1650): (i) his division into thinking and spatially extended substances, together with both substantive and methodological aspects of his understanding of their character as a unity, and (ii) his conception of the human body as a machine. I shall illustrate these topics here using the example of DESCARTES' own military training in the army of the Prince MAURICE OF NASSAU and, as a contrast to this, also his work in another area of highly trained human activity – namely, human dance. In speaking about dance I will not differentiate between its diverse types (individual, dancing with a partner, group dances, ritual, folk, Latin American, typical or non-typical style, mixed, etc.). I am only interested in dance as a form of continuous, rule-governed spatial movement by human subjects. I also have pretty much the same thing in mind when speaking about military training, that is, a form of continuous, rule-governed spatial movement on the part of its protagonists.

**Key words:** DESCARTES – methodological doubt – mechanical conception of human body – substantial dualism – mind-body problem – dance and military drill as models of human activity

## Introduction

In order to introduce the topic it will be necessary to first provide some basic informations about DESCARTES' metaphysical dualism and his mechanical conception of the human body.

- (a) DESCARTES — the philosopher, lawyer, physicist, and mathematician — occupies a lasting place in the development of European thought, science and art. His method of 'methodical doubt' initiated, at least in Europe, a new epoch of scientific investigation — of the Universe, the Earth, nature and man. His concept of a mechanical universe contained the idea that organisms are very similar to machines. Though humans possess an immaterial soul, it is still lodged in a mechanical agents body. Living organisms are conceived of as similar to mechanised watches constructed from various elements and not anything other than the sum of these very elements. DESCARTES' mechanistic understanding of the human body led to him investigate the body using the third-person-oriented methods of the natural sciences, and to a radical distancing of the first-person approach to one's own body from science.
- (b) There is an ongoing debate within contemporary philosophy of mind about the significance of DESCARTES' substance dualism — or, at least, about the concepts introduced by him pertaining to this.<sup>1</sup> He introduced a division between soul and matter, coming to the conclusion that they differ from each other absolutely, and that there is no ontological link whatsoever between them. He was convinced of the infallibility of scientific knowledge, and held that "the whole of science is certain and obvious knowledge".
- (c) Once again, we are all the time being brought to the point where we grasp — in a way that is, after all, similar to DESCARTES himself — the necessity of constructing a language which would

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<sup>1</sup> DAMASIO, *Descartes Error*; DENNETT, *Consciousness*.

cross over the barriers between what is thought and what is corporeal, between the spiritual and the spatially extended substances that, ever since his day, have remained divided within our European way of thinking. To construct such a language we need appropriate models of human agency – of actions that can be said to be well-trained: the sort for which dancing or military drills – could serve as models.

### 1. Substantial dualism: *Meditations on primary philosophy*

DESCARTES in his *Meditations*, engages in a search for absolutely certain knowledge. True to the idea of “clear and exact cognition”, this refers to methodical doubting (or so-called “methodical thinking”). Thanks to a systematic application of doubt he is able in the end to break loose from the world of the external senses, while the scope for the certainty he is searching for is narrowed down to the point where all that remains is pure thought: a thinking substance.

In paraphrasing St. AUGUSTINE’S “dubito ergo sum” (“I doubt therefore I am”), one may state that the method of doubt finally arrives at true doubting (thinking). Yet doubting also turns out to itself be resistant to doubt, and so is also, in a certain sense, something self-undermining. In this way, the method of doubting actually protects itself. DESCARTES is the philosopher in European culture who has created from doubt a basis, a starting point, for the search for truth and certainty: everything is doubtful and I may question everything. Ordinary everydayness shows me how the senses may lead me astray. For example, a spoon I am holding in my hand, when placed within a glass of tea, appears bent. Which is the real spoon? Is it the one I can see after it has entered the tea in the glass, or the one which I have all along been holding in my hand, and that appears to be straight? It is on the basis of such considerations that DESCARTES commits himself decisively to the search for what is actually certain:

[...] and I will continue always in this track until I shall find something that is certain, or at least, if I can do nothing more, until I shall know with certainty that there is nothing certain.<sup>2</sup>

Finally, he considers that thought is an attribute which not only is vested in him but which may not be separated from him. “I am – I exist: this is certain; but how often? As often as I think”.<sup>3</sup> The method of doubt has led him, then, to absolute truth and certainty:

So that it must, in fine, be maintained, all things being maturely and carefully considered, that this proposition (*pronunciatum*) *I am, I exist*, is necessarily true each time it is expressed by me, or conceived in my mind.<sup>4</sup>

Truth becomes certainty, certainty is defined through truth. With this, DESCARTES also claims, as he writes somewhat further on, that he himself is a substance, i.e. an entity or nature entirely constituted from thought alone, which for its own existence does not require any place and does not depend on any material substance.

What can be said to have issued from this, with respect to the defining features of the academic and philosophical discourse to which DESCARTES gave rise, is, on the one hand, the identification of truth with certainty and, on the other, the notion of a method that, by virtue of its reductionistic character, is oriented towards achieving certainty of cognition. Constructed on the basis of “I think therefore I am”, the procedure for pursuing such a search finds its starting point in subjectivity, postulated as a basis for a certainty free of all doubt. Man, who outside of the practice of philosophy knows himself to be a unity of body and mind, comes to be reduced to a non-material thinking substance responsible for his identity – as something isolated thanks to methodical doubting (and thinking).

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<sup>2</sup> DESCARTES, *Meditations*, Meditation II: “Of The Nature Of The Human Mind; And That It Is More Easily Known Than The Body”, no 1.

<sup>3</sup> *Ibid.* Meditation II: “Of The Nature Of The Human Mind ...”, no 6.

<sup>4</sup> *Ibid.* Meditation II: “Of The Nature Of The Human Mind ...”, no 3.

## 2. Man's unity: *Letters to Princess Elizabeth*

We encounter DESCARTES' metaphysical division into thinking substance and spatially extended substance in his academic works, where he stays true to his program of scientific research based on methodical doubt. On the other hand, we find a more pragmatic approach to arguing for the unity of both substances, and for the sensual cognition of this unity, in his correspondence with the Princess ELIZABETH of the Palatinate (also known as Elisabeth of Bohemia), who was 22 years his junior.

ELIZABETH studied philosophy, mathematics and the natural sciences, and knew several languages, including Latin. She was one of the most highly educated women of her day, and was certainly counted amongst those sensitive to questions of a philosophical kind. From 1635 to 1636 there were attempts to have her married to the Polish king, WŁADYSŁAW IV; however, ELIZABETH did not wish to adopt Catholicism, while the Catholic parties at the Polish court did not desire to see a Calvinist on the throne.

The princess was fascinated by DESCARTES' academic writings and put every effort into meeting him. They met in 1642 in The Hague. Immediately, they felt a mutual liking, and may even – quite unknowingly – have fallen in love with each other. They spent almost every day together, strolling, talking. When DESCARTES left the environs of The Hague, the role of their personal conversations was taken up by their correspondence. For six years, the princess wrote to him about her daily worries and problems, and he replied, offering her both explanations and reassurances. He dedicated two of his major works to her: *Principles of Philosophy* (publ. 1644) as well as *Passions of the Soul* (publ. 1649).

DESCARTES, in his private correspondence with ELIZABETH, did not have to strive for academically precise reasoning: he was able to relinquish the narrow concept of truth proposed in the *Meditations*, and could argue instead on the level of what we would now call folk psychology. In his first letter, DESCARTES writes in response to ELIZABETH that the human soul possesses two properties:

For there are two things about the human soul on which all the knowledge we can have of its nature depends: one of which is that it thinks, and the other is that, being united to the body, it can act on and be acted.<sup>5</sup>

In addition, he stresses that he had so far hardly spoken out at all on the question of the unity of the thinking substance with the extended substance, and had merely striven to properly understand the thinking substance, as his task was to understand the difference between it and the extended one. Talk of their interacting to form, and thus be incorporated into, some greater unity would have disturbed him in this undertaking.

The question of the unity of soul and body is, indeed, a question that pertains to their mutual interaction: the soul interacts with the body, the body with the soul. Significant for us is that the question of the unity of thinking and extended substance is not, for DESCARTES, academically provable, and is consequently of no real interest to science.

In a second letter to the princess (28.06.1643), DESCARTES differentiates between three types of idea or primary concept that we have, pertaining respectively to the soul, to the body, and to the unity of soul and body.

First, I consider that there are in us certain primitive notions that are like originals on the pattern of which we form all our other knowledge. There are only very few of these notions; for, after the most general – those of being, number and duration – which apply to all that we can conceive, we have, for the body in particular, only the notion of extension ... and for the soul alone, we have only that of thought, in which are included the perceptions of the understandings and the inclinations of the will, and finally, for the soul and the body together, we have only that of their union on which depends that of the power the soul has to move the body and the body to act on the soul, in causing its sensations and passions.<sup>6</sup>

<sup>5</sup> SHAPIRO, *Princess Elisabeth*, (CSMK III 218; AT III 664), p. 63. In another letter written to REGIUS, DESCARTES makes a similar remark, cf. HOFFMAN, *The Unity*.

<sup>6</sup> SHAPIRO, *Princess Elisabeth*, p. 65.

According to him, therefore, those who have never philosophised, and who have relied only on their senses, in no way doubt that the soul moves the body, while the body interacts with the soul, and consider one and the other to be the same thing: that is they comprehend them as a unity, for to comprehend the unity of two things just is, in fact, to comprehend them as one single thing.<sup>7</sup>

In so far as the metaphysical thinking proposed in the *Meditations* acquaints us with the concept of the soul, while mathematical research helps us to exercise our imaginations and come up with clearer conceptions of the body, daily life, combined with a refraining from any exercising of the imagination, teaches us to comprehend the unity of spirit and body. We become acquainted with the thinking substance thanks to metaphysics, with the extended substance thanks to mathematics and physics, and with their unity thanks to our experiences in the field of social psychology.

The very concept of the unity of mind and body will never, however, achieve the clarity possessed by the “clear and distinct” concept of the soul. DESCARTES stresses that to him it does not appear that our human intellect is able to completely distinctly comprehend (at the same time) the difference between soul and body and, simultaneously, their unity. For it would follow that in fulfilling this aim we should comprehend them as a single thing but also, at the very same time, as two things – something which would be internally contradictory.<sup>8</sup> Hence, to become acquainted with the unity of soul and body, some method other than the strictly academic one of doubting is called for. There is a need for sensual cognition.

No sooner have we started to philosophise than we begin to lose touch with the obviously experientiable unity of the soul and the body, perceiving only their difference from one another, so that it becomes increasingly difficult for us to think of them together. DESCARTES as-

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<sup>7</sup> *Ibid.* pp. 65–66.

<sup>8</sup> Cf. *Ibid.* p. 10. DESCARTES refers here to a psychological construal of the principle of contradiction. Closer analyses of such an understanding of that principle are given by J. ŁUKASIEWICZ: see, for example ŁUKASIEWICZ, *O zasadzie* (On the Principle of Contradiction in Aristotle), p. 9 onwards.

cribes great importance and value to that which counts, in everyday intuitive terms, as the sensuously felt and consciously experienced unity of each of us. In his opinion, the exclusive concentration of the intellect on pure thought alone could prove harmful to us, as intellect cannot then play its proper role in the functioning of the imagination and the senses. He advises ELIZABETH that it is far better to be satisfied with maintaining, in one's memory, conclusions already arrived at, and to stay true to them, in order that the rest of one's time might be devoted to testing their application with regard to establishing how beneficial they are for one's thinking — where this, in turn, means testing them in precisely those areas where the intellect interacts with the imagination and the senses. When we actually employ the CARTESIAN method of systematic doubt, we sooner or later run up against its limit. Only in sleep, where we find ourselves separated *in abstracto* from the activities of thinking, are we able to succumb to infinite illusions. DESCARTES therefore warns ELIZABETH that frequent absorption of the intellect in pondering its own possibilities would be extremely harmful, because it would not then be able to properly involve itself in the functioning of the imagination and the senses.

At the same time, the proper functioning of the imagination and the senses is required just in order for human beings to be able to operate in, and correctly locate themselves relative to, their spatio-temporal surroundings. The reality of man — as an individual — lies precisely in that which escapes the CARTESIAN academic method. Viewed from this standpoint, then, extended substance and the spiritual are not really ontological categories, but two different moments that show up within the internal differentiation of a single overarching movement of nature. Spiritual substance thus emerges as independent only as an illusory and abstract substance. Moreover, is just this very same conclusion that we are brought to when we construe dance as a metaphor for human bodily movement in space generally, making this serve as a catalyst for our thinking about the nature of the unity of body and mind.



### 3. Sensuous cognition

We are most directly acquainted with the unity of soul and body in our everyday experience of ourselves and our surroundings, which are made possible for us by our senses. Let us start from an understanding of the term “body”. In the *Meditations* DESCARTES indicates that:

By body I understand all that can be terminated by a certain figure; that can be comprised in a certain place, and so fill a certain space as therefrom to exclude every other body; that can be perceived either by touch, sight, hearing, taste, or smell; that can be moved in different ways, not indeed of itself, but by something foreign to it by which it is touched [and from which it receives the impression]; for the power of self-motion, as likewise that of perceiving and thinking, I held as by no means pertaining to the nature of body; on the contrary, I was somewhat astonished to find such faculties existing in some bodies.<sup>9</sup>

The soul we get to know thanks to the ability to create concepts, the body thanks to imagination, and the unity of soul and body thanks to the senses. The body, in accordance with DESCARTES’ academic method, comes within the provision of the third-party law of mechanics.

DESCARTES grants touch first place in the list of senses cited above, as it is, for him, “[...] that amongst our senses which is considered to be the least deceptive and the surest”.<sup>10</sup> Touch belongs to the body and to the sphere of the mutual interaction of the soul with the body. In touch, not only are skin receptors involved, but also, indirectly, many other muscles. Touch constitutes one of the criteria differentiating a person from his or her surroundings. In dance, we are able to differentiate between a whole range of kinds or instances of touch: the touch of the air, the touch of the costume, the stage, the hands or the body of the partner. The other person’s touch determines the limits of our space, invites us to an embrace, sweeping us up into a movement and prompting an activation in the very depths of our muscular

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<sup>9</sup> DESCARTES, *Meditations*, Meditation II: “Of The Nature Of The Human Mind ...”, no 5.

<sup>10</sup> DESCARTES, *Świat*, p. 21 (transl. J. BREMER).

corporeality. Furthermore, the touch of a partner may be pleasant, helpful, directing, etc.

The dancer or dancers – be they male or female, or both together – must evaluate spatial distances and proportions, establish mutual relations, and create hierarchies of subordination with respect to their perceptions of themselves and their environment. They must coordinate their bodily movements relative to the entirety of what surrounds them (a complex play of movements and sensual awareness).

The well trained soldier likewise analyses spatial distances and proportions, establishing mutual relations and instigating hierarchies. Modern military drill, for example, was something created in the Dutch army by MAURICE OF NASSAU. The drill consisted of training soldiers in basic manoeuvres until they were able to perform them in unison. No longer could each soldier develop his own corporeal techniques: instead, everything had to be based on an accurate analysis of corporeal action.<sup>11</sup>

It is certainly difficult to imagine a non-material dancing or fighting substance. To describe such a dance or fight we would need a different type of language. So a dancer and a fighting soldier cannot be thought of as corresponding to any sort of static, non-three-dimensional “thinking substance” separated from the body, such as is encountered in the *Meditation*. It cannot be conceived of in terms concomitant with the notion of someone being engaged in sceptical doubt, where this means adopting a position of distanced detachment from one’s surroundings, but only in terms of someone who, thanks to their movements, is in continuous sensuous interaction with their spatial surroundings.

Dance represents a controlling of space, and a sharing of it with others who are dancing. Besides this, it issues from one’s presence in the reality of “here and now” – and with this, from one’s fluid relocation within temporal periods (e.g. one’s memories of the past and one’s anticipatory presence at the level of one’s own future movements). Everything, however, occurs through a sense of being in the ‘here and now’. Dance thus establishes certainty in the sense of “I feel

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<sup>11</sup> CLASSEN, *The Deepest Sense*, pp. 167–168.

who I am and what I want”, and not merely in that of “I think therefore I am”. Along with this comes the fact that the body is known and experienced from the perspective of the first person – not merely (mechanically) from that of the third person.

For these reasons, the spatio-temporal relationship obtaining between a dancer and his or her partner-and-surroundings in dance cannot be conceived of in terms of a dualistic science of separation between oneself and the dancing substances themselves, as this would entail that we have, just in a single dancing individual, two substances, one extensive and one non-extensive, and, in the case of two persons, four such substances. The relation of dancer to surroundings must instead be described by means of a science that distinguishes itself by its postulation of a unity: one derived from folk psychology and based on the senses as these show up in relation to both rhythmic movement itself and a first-person approach to the body.

An excessive emphasis on scientific-metaphysical cognition, such as is focused on thinking about thinking itself, thus threatens to bring about a serious impoverishment of sensuous cognition. The additional point that follows from this, moreover, is that man’s reality – as a psycho-physical unity – is precisely what eludes the *CARTESIAN* scientific method.

#### 4. Descartes military career, and military drill

A living organism is not similar to a machine: unlike with machines, in the natural course of things living bodies grow and propagate, and whereas corporeal wounds tend naturally to heal themselves, damage to a machine does not. How, then, did *DESCARTES* come to equate living organisms with machines? According to E.T. *McMULLEN* several explanations have been proposed, but none of these take account of *DESCARTES*’ early military career.<sup>12</sup>

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<sup>12</sup> *McMULLEN*, The origin. *DESCARTES* aimed to displace the established *ARISTOTELIAN* philosophy of the schools with his idea of a new mathematical science that would explain all natural phenomena by the use of a few universal laws of nature.

DESCARTES philosophical activity coincided with the Thirty Years' War. On the occasion of its outbreak in 1618, the 22-year-old DESCARTES volunteered for the Calvinist army of Prince MAURICE OF NASSAU, in Holland. A year later he left Holland, heading for Denmark and then later for Germany, where he in turn enlisted in Catholic units. In 1620 he left the army and, after two years, returned to France. He experienced warfare from the inside, having to rely on his training in swordsmanship to defend his own life.

DESCARTES entered the Dutch army as a gentleman volunteer, to train in the art of war under MAURICE OF NASSAU. Prince MAURICE was a mathematician who had studied at the University of Leiden, where he read *Politicorum sive Civilis doctrinae libri sex* (1589), by Justus LIPSIUS.<sup>13</sup> LIPSIUS's book provided a theoretical basis for reforming the military, with the emphasis placed on promoting values connected with will, reason and discipline – in conformity with classical Roman ideals. MAURICE also studied the *Tactical Theory* of the Greek military writer AELIANUS TACTICUS, with its description of repetitive drilling and the use of the phalanx with interchangeable javelin and slingshot throwers, and soldiers forming and reforming ranks.<sup>14</sup> In his army, he applied mathematical innovations to the art of war, in order to secure military victories with only the minimum number of casualties.

The training of Prince MAURICE's army was particularly important in terms of its implications for the conduct of war in the early modern period. Previous generals had made use of drilling and exercises, in order to instil discipline or keep the men physically healthy, but for MAURICE, they “were the fundamental postulates of tactics”.<sup>15</sup> This change impacted upon the entire conduct of warfare: it demanded that officers train men in addition to simply directing them, and reduced the size of the basic infantry unit for functional purposes, in that more specific orders had to be given in battle, with a resulting

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<sup>13</sup> Cf. HEUSER, *The Evolution*, pp. 87–88. HEUSER refers us to a paragraph in this text entitled “Drill, discipline, mathematical war and the abhorrence of chance”.

<sup>14</sup> Cf. PARKER, *Dynastic War*, pp. 155–157.

<sup>15</sup> ELTIS, *The Military Revolution*, p. 9.

decrease in herd behaviour that, in turn, necessitated greater initiative and intelligence on the part of ordinary soldiers. For systematically synchronised execution to be possible, each and every military manoeuvre had to be broken down into its component movements.

In the context of MAURICE's army, DESCARTES was introduced to the world of the military engineer, and to the progressive mathematization of the art of war. He also became familiar with the extensive new forms of training that the army had to be put through in order to effectively load and discharge their firearms, and to manoeuvre with them. MAURICE developed a 48-step drill for firing the musket, which was written in an illustrated manual. This became known as the "Dutch Drill".<sup>16</sup> In the Dutch Army, DESCARTES learned the method used when teaching how to manoeuvre with new weapons such as firearms. Executed properly, the "Dutch Drill" makes soldiers appear to be functioning as machines: in a mechanistic manner, just like robots. One unintended result of all this training was that the soldiers, acting and drilling together as a tightly bound unit, started to behave like automata. In battle, they stood their ground, going through their normalised motions like robots even in the presence of many casualties, while an untrained person would have tended to just flee from such a bloodbath. In other words, a group of organisms were behaving in a machine-like manner. If the soldiers did their trained movement enough times, they, too, would have actually felt some kind of synergistic effect in addition to merely seeing, hearing, and thinking about it.

This tangible demonstration of a previously more abstract mechanistic concept, which DESCARTES discovered in a mathematical and engineering setting, may have been the inspiration for his idea that human and animal bodies are like machines, in spite of the many dissimilarities between them. Like the other officers there, he started to think of army units in mathematical terms, and as machines with human parts into which they could be dismantled. Indeed,

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<sup>16</sup> Cf. LAWRENCE, *The Complete Soldier*, pp. 15, 137, 155; CLASSEN, *The Deepest Sense*, p. 167. Perhaps it was for the sake of this "drill" that the Catholic DESCARTES went to learn warfare from a Protestant Prince.

DESCARTES' theoretical reflections are arguably being realized today – in army laboratories, or in agreements to cooperate with industry and academia in developing smart robots designed to work alongside combat troops.<sup>17</sup>

### 5. Descartes — Ballet: *The Birth of Peace*

The Thirty Years' War ended in 1648 with the signing of the so-called Treaty of Westphalia. A year later, DESCARTES was invited by Queen CHRISTINA to Stockholm. On the order of the Queen, who had been brought up in the French spirit, he wrote a short piece – a libretto – for the ballet: *La Naissance de la Paix*.<sup>18</sup>

Queen CHRISTINA displayed considerable interest not only in courtly games, but also in ballet performances, in which she herself took an active part. She brought numerous musicians from France to her court. We should add that DESCARTES died in Stockholm on the 11th of February 1650, while the ballet *The Birth of Peace* is one of his last works. He refers in it to the HERACLITEAN saying that war is the father of all things – even though the ballet itself is dedicated to peace. The balletic dance is supposed to express the truth about war, the greatest fruit of which is the peace that follows it. Hence the necessity of celebrating the peace derived from war. The lightness of the ballet expresses the joy at the ending of war. The opposite side of this joy is the languidness and solemnity of war, presented by a dancing

<sup>17</sup> Cf. EVANS, *Safe Operations*, pp. 1–13.

<sup>18</sup> I shall not enter here into any discussion of whether the ballet *The Birth of Peace* is a work by DESCARTES or not, or whether he wrote it on his own initiative. In a new edition of UEBERWEG's book, *Grundriss der Geschichte der Philosophie* (cf. UEBERWEG, René Descartes), can be found a note that in the 2nd edition of *Oeuvres de Descartes* at the end of every volume there are to be found additions ("Additions"). There in volume 5 DESCARTES, *Oeuvres* (pp. 616–627) one may find *La Naissance de la Paix*. The edition has been supplemented in relation to the first edition of *Oeuvres*. In the light of this it makes sense to recall that DESCARTES also wrote a short study of musical works. There he attempts to show what it is that causes music to be something pleasant for the soul (e.g., in his opinion sensual pleasure depends on a certain proportionality and responsibility of the subject with respect to a given sense).

military parade, under the command of the goddess Athena. Honour is bring paid, then, not to Mars, the God of War, but to Athena – the patroness of philosophers and the goddess of wisdom, sagacity, just war and peace.

The dancing goddess Athena derives peace from war, she is the ‘the governess of our body’, without whom it cannot live.<sup>19</sup> Her wisdom is the wisdom of the unity of soul and body. The dance plays out a central role in DESCARTES’ ballet. The matter here does not concern the metrical-mechanical realisation of the ballet’s choreography, but rather constitutes an expression of the joy felt in response to the ending of war.

In a ballet libretto written near the end of his life, DESCARTES called war a “ballet for the birth of peace” – going so far as to directly liken the soldiers lined up for pitched battles to troupes of dancers.<sup>20</sup> Indeed, where the orderly battalions of 17th-century armies were concerned – being clean, well drilled and equipped and dressed in uniforms – the soldiers resembled a *corps de ballet* far more than they did the ragtag cluster of conscripts that had formerly constituted armies.

The model of the body as a mechanism devoid of soul proposed by DESCARTES is difficult to reconcile with the notion of the dancing goddess Athena. This supports the thesis presented above, about the solitary and hypothetical nature of the mechanical model of the body. In this regard, the present author would agree with FISCHER when she writes that dance refers to our knowledge about the unity of thinking and expanding substances. We may then add that our knowledge of military drill refers to a similar kind of unity. This knowledge we have until we start to philosophise, until we enter into the territory of CARTESIAN metaphysics, into the territory of his understanding of the sciences. Dance and military drill present a thinking that is not thinking “clearly and distinctly” as viewed from the perspective of a strictly conceptual mode of conscious reflective awareness, but which expresses itself as a sensually perceived, well trained movement.

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<sup>19</sup> FISCHER, Wenn Substanzen, pp. 109–111.

<sup>20</sup> Cf. VAN ORDEN, *Music*, p. 187.

Extended substance, then, does not correspond to the abovementioned folk knowledge (which in DESCARTES is transmitted as experience), but neither is thought able to translate that experienced knowledge into clear concepts. This knowledge we learn from common experience. The sensually experienced unity of the thinking and extended substances is articulated in both dance and military training. Both of them may be said to constitute an example of “science” corresponding to folk psychology. The CARTESIAN mechanised body and the metaphysics of an isolated “I think” become, in movement (performed according to stipulated rules), something united.

### Conclusion

DESCARTES taught us to conduct ourselves in the sciences according to analytical reason: for him, the true sciences were metaphysics and mathematics. We ourselves apply a similar method to his – in other sciences. In searching for certain knowledge and proceeding methodically, he distinguished the corporeal substance from the spiritual (or mental), and this has remained as a feature of our European way of thinking about man. It might be that people from other continents find it easier to fuse themselves into dance with their own body – to create a unity with the body – in that they are not burdened by a CARTESIAN way of thinking.

In dance, however, we discover the inseparability of the two abovementioned substances, along with their mutual influence upon each other: concentration at the level of the body leads to concentration at the mental level. That which we experience on the plane of emotion expresses itself in the plane occupied by our body, in gestures and movement. And in reverse: through movements we are able to influence our feelings – our experiences on a mental and spiritual plane.

Both a dancer and a soldier fulfil the potential of the expanse of extended space they occupy, controlling their body, but also not having to concentrate exclusively on a foreground of just words or concepts: it is enough for them to have spatial, sensuously perceived gestures – for them to have their own bodies. One and the same dance may



be seen as a retreat from surroundings often stripped of all feeling, as a means to overcome the mechanical vision of the body, and as a place where one may experience the unity of spiritual and corporeal substance. For movement is significant, constituting and expressing as it does life itself. Everything that is alive is in movement, whilst dance and fighting can both of them be viewed as models of movement of a special kind.

There exist individuals who, for these or other reasons, are either “cut off” from their body or have somewhere “lost” it, or are simply unable to achieve any contact with it. Dance may help them to unite with their bodies, and to find a properly first-person approach to them. Dance, for them, may prove to be an inspiring way of working on their awareness of their very selves, on their thinking about themselves, on their “ego” — and this at various levels on which these function (e.g., the spheres of the body, the psyche and the soul).

DESCARTES’ positions, as presented here, involve him opting for various types of cognition (conceptual cognition, imagination, the senses), which taken together then furnish us with an extended concept of thinking. With this, dance may be freed from its opposition to pure thought, and may instead come to be considered something that belongs to thought. This then opens up new possibilities for thinking about thought itself: thoughts about the thinking and dancing subject. Equally, it may just as much thematize forms of unity like experience and dance as being constitutive of the unity of a variegated thinking — one which may be active in a variety of ways and whose diverse acts remain the actions of one and the same person.

To be sure, there exist multiple ways of practising the philosophy of dance. I myself, however, would consider all of these to be linked by the fact that such areas of our human existence as experience, inter-subjectivity, living in the world, and personifying that which is spiritual, are thematized together there. It is these areas that DESCARTES excluded from scientific thinking (with his radical division into a thinking and an extended substance), yet he preserved them in the folk approach that he himself was also expounding.

Should it turn out that DESCARTES indeed wrote the ballet “The Birth of Peace”, this could also motivate an investigation into his poetic and literary influences, and a comparison of the philosophical themes expressed in the ballet with those developed in his philosophical texts.

Given the views presented here, the well known CARTESIAN dictum “I think therefore I am” could perhaps be replaced by a CARTESIAN sounding “I dance therefore I am” or “I fight therefore I am”. Neither of these phrases are original. The first is a saying from the Senegalese SENGHOR<sup>21</sup> “je dance, donc je suis”. SENGHOR well knew the CARTESIAN understanding of “cogito, ergo sum”, but considered that man – particularly an African – expresses himself through dance, that dance defined his existence, his living. There is, moreover, a reference to SENGHOR’s saying in the words of a widely known song from the 1960s sung by Brigitte BARDOT (1964) “je danse, donc je suis”. As regards the second phrase, SCHECHTMAN ascribes to JABOTINSKY<sup>22</sup> stating that there are times when a man can say “I think therefore I am”, but others when he has to say “I fight therefore I am”.<sup>23</sup>

### Streszczenie

W artykule omawiam dwa fundamentalne w filozofii René DESCARTESA (1596–1650) zagadnienia: (i) kartezyjańskie rozróżnienie na substancję myślącą (umysł, *res cogitans*) i rozciągłą (materialne ciało, *res extensa*) oraz jego koncepcję jedności człowieka i tego, co on pod tym pojęciem rozumiał, (ii) kartezyjańskie pojmowanie ciała ludzkiego jako maszyny. Stanowisko DESCARTESA w tych kwestiach ilustruję dwoma przykładami podanym przez samego DESCARTESA. Pierwszy z nich związany jest ze szkoleniem wojskowym w armii MAURYCEGO ORAŃSKIEGO, księcia Nassau. Drugi dotyczy ludz-

<sup>21</sup> Léopold Sédar SENGHOR (1906–2001), a Senegalese poet and politician. The first president of Senegal (1960–1980).

<sup>22</sup> Vladimir Yevgenyevich (Ze’ev) JABOTINSKY (1880–1940), a poet, orator, soldier, and founder of the Jewish Self-Defense Organization in Odessa. He co-founded the Jewish Legion of the British army in World War I.

<sup>23</sup> Cf. SCHECHTMAN, *The Life*, p. ix.

kiego tańca, który jest sztuką również wymagającą odpowiedniego ćwiczenia. Mówiąc o tańcu nie dokonuję rozróżnienia na taniec indywidualny, taniec z partnerem, taniec grupowy, rytualny, ludowy, południowoamerykański, w stylu standardowym, mieszanym i tak dalej ... Taniec interesuje mnie jedynie jako forma ludzkiego ruchu, który jest przestrzennie stały i podporządkowany określonym regułom. Podobny aspekt mam na myśli, gdy mówię o szkoleniu wojskowym, podczas którego żołnierze poruszają się w sposób niezmienny, podlegający określonym zasadom.

**Słowa kluczowe:** DESCARTES – metodyczne wątplenie – mechanicystyczna koncepcja ciała ludzkiego – dualizm substancjalny – dylemat psychofizyczny – taniec i musztra wojskowa jako model ludzkiej aktywności

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