



The Philosophy of Descartes

Richard Falckenberg

The long conflict with Scholasticism, which had been carried on with ever increasing energy and ever sharper weapons, was brought by Descartes to a victorious close. The new movement, long desired, long sought, and prepared for from many directions, at length appears, ready and well-established. Descartes accomplishes everything needful with the sure simplicity of genius. He furnishes philosophy with a settled point of departure in self-consciousness, offers her a method sure to succeed in deduction from clear and distinct conceptions, and assigns her the mechanical explanation of nature as her most imperative and fruitful mission.

René Descartes was born at La Haye in Touraine, in 1596, and died at Stockholm in 1650. Of the studies taught in the Jesuit school at La Flèche, mathematics alone was able to satisfy his craving for clear and certain knowledge. The years 1613-17 he spent in Paris; then he enlisted in the military service of the Netherlands, and, in 1619, in that of Bavaria. While in winter quarters at Neuburg, he vowed a pilgrimage to Loretto if the Virgin would show him a way of escape from his tormenting doubts; and made the saving discovery of the “foundations of a wonderful science.” At the end of four years this vow was fulfilled. On his return to Paris (1625), he was besought by his learned friends to give to the world his epoch-making ideas. Though, to escape the distractions of society, he kept his residence secret, as he had done during his first stay in Paris, and frequently changed it, he was still unable to secure the complete privacy and leisure for scientific work which he desired. Therefore he went to Holland in 1629, and spent twenty years of quiet productivity in Amsterdam, Franeker, Utrecht, Leeuwarden, Egmond, Harderwijk, Leyden, the palace of Endegeest, and five other places. His work here was interrupted only by a few journeys, but much disturbed in its later years by annoying controversies with the theologian Gisbert Voëtius of Utrecht, with Regius, a pupil who had deserted him, and with professors from Leyden. His correspondence with his French friends was conducted through Père Mersenne. In 1649 he yielded to pressing invitations from Queen Christina of Sweden and removed to Stockholm. There his weak constitution was not adequate to the severity of the climate, and death overtook him within a few months.

The two decades of retirement in the Netherlands were Descartes’s productive period. His motive in developing and writing out his thoughts was, essentially, the desire not to disappoint the widely spread belief that he was in possession of a philosophy more certain than the common one. The work entitled *Le Monde*, begun in 1630 and almost completed, remained unprinted, as the condemnation of Galileo (1632) frightened our philosopher from publication; fragments of it only, and a brief summary, appeared after the author’s death. The chief works, the *Discourse on Method*, the *Meditations on the First Philosophy*, and the *Principles of Philosophy* appeared between 1637 and 1644,—the *Discours de la Méthode* in 1637, together with three dissertations (the “Dioptrics,” the “Meteors,” and the “Geometry”), under the common title, *Essais Philosophiques*. To the (six) *Meditationes de Prima Philosophia*, published in 1641,

and dedicated to the Paris Sorbonne, are appended the objections of various savants to whom the work had been communicated in manuscript, together with Descartes's rejoinders. He himself considered the criticisms of Arnauld, printed fourth in order, as the most important. The Third Objections are from Hobbes, the Fifth from Gassendi, the First, which were also the first received, from the theologian Caterus of Antwerp, while the Second and Sixth, collected by Mersenne, are from various theologians and mathematicians. In the second edition there were added, further, the Seventh Objections, by the Jesuit Bourdin, and the Replies of the author thereto. The four books of the *Principia Philosophiae*, published in 1644 and dedicated to Elizabeth, Countess Palatine, give a systematic presentation of the new philosophy. The *Discourse on Method* appeared, 1644, in a Latin translation, the *Meditations* and the *Principles* in French, in 1647. The *Treatise on the Passions* was published in 1650; the *Letters*, 1657-67, in French, 1668, in Latin. The *Opera Postuma*, 1701, beside the *Compendium of Music* (written in 1618) and other portions of his posthumous writings, contain the "Rules for the Direction of the Mind," supposed to have been written in 1629, and the "Search for Truth by the Light of Nature." The complete works have been often published, both in Latin and in French. The eleven volume edition of Cousin appeared in 1824-26.

We begin our discussion with Descartes's noetical and metaphysical principles, and then take up in order his doctrine of nature and of man.

1. The Principles

That which passes nowadays for science, and is taught as such in the schools, is nothing but a mass of disconnected, uncertain, and often contradictory opinions. A principle of unity and certainty is entirely lacking. If anything permanent and irrefutable is to be accomplished in science, everything hitherto considered true must be thoroughly demolished and built up anew. For we come into the world as children and we form judgments of things, or repeat them after others, before we have come into the full possession of our intellectual powers; so that it is no wonder that we are filled with a multitude of prejudices, from which we can thoroughly escape only by considering everything doubtful which shows the least sign of uncertainty. Let us renounce, therefore, all our old views, in order later to accept better ones in their stead; or, perchance, to take the former up again after they shall have stood the test of rational criticism. The recognized precaution, never to put complete confidence in that which has once deceived us, holds of our relation to the senses as elsewhere. It is certain that they sometimes deceive us—perhaps they do so always. Again, we dream every day of things which nowhere exist, and there is no certain criterion by which to distinguish our dreams from our waking moments,—what guarantee have we, then, that we are not always dreaming? Therefore, our doubt must first of all be directed to the existence of sense-objects. Nay, even mathematics must be suspected in spite of the apparent certainty of its axioms and demonstrations, since controversy and error are found in it also.

I doubt or deny, then, that the world is what it appears to be, that there is a God, that external objects exist, that I have a body, that twice two are four. One thing, however, it is impossible for me to bring into question, namely, that I myself, who exercise this doubting function, exist. There is one single point at which doubt is forced to halt—at the doubter, at the self-existence of the thinker. I can doubt everything except that I doubt, and that, in doubting, I am. Even if a superior being sought to deceive me in all my thinking, he could not succeed unless I existed, he could not cause me not to exist so long as I thought. To be deceived means to think falsely; but that something is thought, no matter what it be, is no deception. It might be true, indeed,

that nothing at all existed; but then there would be no one to conceive this non-existence. Granted that everything may be a mistake; yet the being mistaken, the thinking is not a mistake. Everything is denied, but the denier remains. The whole content of consciousness is destroyed; consciousness itself, the doubting activity, the being of the thinker, is indestructible. *Cogitatio sola a me divelli nequit*. Thus the settled point of departure required for knowledge is found in the *self-certitude of the thinking ego*. From the fact that I doubt, *i.e.*, think, it follows that I, the doubter, the thinker, am. *Cogito, ergo sum* is the first and most certain of all truths.

The principle, “I think, therefore I am,” is not to be considered a deduction from the major premise, “Whatever thinks exists.” It is rather true that this general proposition is derived from the particular and earlier one. I must first realize in my own experience that, as thinking, I exist, before I can reach the general conclusion that thought and existence are inseparable. This fundamental truth is thus not a syllogism, but a not further deducible, self-evident, immediate cognition, a pure intuition—*sum cogitans*. Now, if my existence is revealed by my activity of thought, if my thought is my being, and the converse, if in me thought and existence are identical, then I am a being whose essence consists in thinking. I am a spirit, an ego, a rational soul. My existence follows only from my thinking, not from any chance action. *Ambulo ergo sum* would not be valid, but *mihi videor* or *puto me ambulare, ergo sum*. If I believe I am walking, I may undoubtedly be deceived concerning the outward action (as, for instance, in dreams), but never concerning my inward belief. *Cogitatio* includes all the conscious activities of the mind, volition, emotion, and sensation, as well as representation and cognition; they are all *modi cogitandi*. The existence of the mind is therefore the most certain of all things. We know the soul better than the body. It is for the present the only certainty, and every other is dependent on this, the highest of all.

What, then, is the peculiarity of this first and most certain knowledge which renders it self-evident and independent of all proof, which makes us absolutely unable to doubt it? Its entire clearness and distinctness. Accordingly, I may conclude that everything which I perceive as clearly and distinctly as the *cogito ergo sum* is also true, and I reach this general rule, *omne est verum, quod clare et distincte percipio*. So far, then, we have gained three things: a challenge; to be inscribed over the portals of certified knowledge, *de omnibus dubitandum*; a basal truth, *sum cogitans*; a criterion of truth, *clara et distincta perceptio*.

The doubt of Descartes is not the expression of a resigned spirit which renounces the unattainable; it is precept, not doctrine, the starting point of philosophy, not its conclusion, a methodological instrument in the hand of a strong and confident longing for truth, which makes use of doubt to find the indubitable. It is not aimed at the possibility of attaining knowledge, but at the opinion that it has already been attained, at the credulity of the age, at its excessive tendency toward historical and poly-historical study, which confuses the acquisition and handing down of information with knowledge of the truth. That knowledge alone is certain which is self-attained and self-tested—and this cannot be learned or handed down; it can only be rediscovered through examination and experience. Instead of taking one’s own unsupported conjectures or the opinions of others as a guide, the secret of the search for truth is to become independent and of age, to think for one’s self; and the only remedy against the dangers of self-deception and the ease of repetition is to be found in doubting everything hitherto considered true. This is the meaning of the Cartesian doubt, which is more comprehensive and more thorough than the Baconian. Descartes disputed only the certitude of the knowledge previously attained, not the possibility of knowledge—for of the latter no man is more firmly convinced than he. He is a rationalist, not a skeptic. The intellect is assured against error just as soon as, freed from hindrances, it remains true to itself, as it puts forth all its powers and lets nothing

pass for truth which is not clearly and distinctly known. Descartes demands the same thing for the human understanding as Rousseau at a later period for the heart: a return to uncorrupted nature. This faith in the unartificial, the original, the natural, this radical and naturalistic tendency is characteristically French. The purification of the mind, its deliverance from the rubbish of scholastic learning, from the pressure of authority, and from inert acceptance of the thinking of others—this is all. Descartes finds the clearest proof of the mind's capacity for truth in mathematics, whose trustworthiness he never seriously questioned, but only hypothetically, in order to exhibit the still higher certainty of the "I think, therefore I am." He wants to give philosophy the stable character which had so impressed him in mathematics when he was a boy, and recommends her, therefore, not merely the evidence of mathematics as a general example, but the mathematical method for definite imitation. Metaphysics, like mathematics, must derive its conclusions by deduction from self-evident principles. Thus the geometrical method begins its rule in philosophy, a rule not always attended with beneficial results.

With this criterion of truth Descartes advances to the consideration of ideas. He distinguishes volition and judgment from ideas in the narrow sense (*imagines*), and divides the latter, according to their origin, into three classes: *ideae innatae*, *adventitiae*, *a me ipso factae*, considering the second class, the "adventitious" ideas, the most numerous, but the first, the "innate" ideas, the most important. No idea is higher or clearer than the idea of God or the most perfect being. Whence comes this idea? That every idea must have a cause, follows from the "clear and distinct" principle that nothing produces nothing. It follows from this same principle, *ex nihilo nihil fit*, however, that the cause must contain as much reality or perfection—*realitas* and *perfectio* are synonymous—as the effect, for otherwise the overplus would have come from nothing. So much ("objective," representative) reality contained in an idea, so much or more ("formal," actual) reality must be contained in its cause. The idea of God as infinite, independent, omnipotent, omniscient, and creative substance, has not come to me through the senses, nor have I formed it myself. The power to conceive a being more perfect than myself, can have only come from someone who is more perfect in reality than I. Since I know that the infinite contains more reality than the finite, I may conclude that the idea of the infinite has not been derived from the idea of the finite by abstraction and negation; it precedes the latter, and I become conscious of my defects and my finitude only by comparison with the absolute perfection of God. This idea, then, must have been implanted in me by God himself. The idea of God is an original endowment; it is as innate as the idea of myself. However incomplete it may be, it is still sufficient to give a knowledge of God's existence, although not a perfect comprehension of his being, just as a man may skirt a mountain without encircling it.

Descartes brings in the idea of God in order to escape solipsism. So long as the self-consciousness of the ego remained the only certainty, there was no conclusive basis for the assumption that anything exists beyond self, that the ideas which apparently come from without are really occasioned by external things and do not spring from the mind itself. For our natural instinct to refer them to objects without us might well be deceptive. It is only through the idea of God, and by help of the principle that the cause must contain at least as much reality as the effect, that I am taken beyond myself and assured that I am not the only thing in the world. For as this idea contains more of representative, than I of actual reality, I cannot have been its cause.

To this empirical argument, which derives God's existence from our idea of God (from the fact that we have an idea of him), Descartes joins the (modified) ontological argument of Anselm, which deduces the existence of God from the concept of God. While the ideas of all other things include only the possibility of existence, necessary existence is inseparable from the concept of the most perfect being. God cannot be thought apart from existence; he has

the ground of his existence in himself; he is *a se* or *causa sui*. Finally, Descartes adds a third argument. The idea of perfections which I do not possess can only have been imparted to me by a more perfect being than I, which has bestowed on me all that I am and all that I am capable of becoming. If I had created myself, I would have bestowed upon myself these absent perfections also. And the existence of a plurality of causes is negated by the supreme perfection which I conceive in the idea of God, the indivisible unity of his attributes. Among the attributes of God his veracity is of special importance. It is impossible that he should will to deceive us; that he should be the cause of our errors. God would be a deceiver, if he had endowed us with a reason to which error should appear true, even when it uses all its foresight in avoiding it and assents only to that which it clearly and distinctly perceives. Error is man's own fault; he falls into it only when he misuses the divine gift of knowledge, which includes its own standard. Thus Descartes finds new confirmation for his test of truth in the *veracitas dei*. Erdmann has given a better defense of Descartes than the philosopher himself against the charge that this is arguing in a circle, inasmuch as the existence of God is proved by the criterion of truth, and then the latter by the former: The criterion of certitude is the *ratio cognoscendi* of God's existence; God is the *ratio essendi* of the criterion of certitude. In the order of existence God is first, he creates the reason together with its criterion; in the order of knowledge the criterion precedes, and God's existence follows from it. Descartes himself endeavors to avoid the circle by making *intuitive* knowledge self-evident, and by not bringing in the appeal to God's veracity in *demonstrative* knowledge until, in reflective thought, we no longer have each separate link in the chain of proof present to our minds with full intuitive certainty, but only remember that we have previously understood the matter with clearness and distinctness.

Our ideas represent in part things, in part qualities. Substance is defined by the concept of independence as *res quae ita existit, ut nulla alia re indigeat ad existendum*; a pregnant definition with which the concept of substance gains the leadership in metaphysics, which it held till the time of Hume and Kant, sharing it then with the conception of cause or, rather, relinquishing it to the latter. The Spinozistic conclusion that, according to the strict meaning of this definition, there is but one substance, God, who, as *causa sui*, has absolutely no need of any other thing in order to his existence, was announced by Descartes himself. If created substances are under discussion, the term does not apply to them in the same sense (not *univoce*) as when we speak of the infinite substance; created beings require a different explanation, they are things which need for their existence only the co-operation of God, and have no need of one another. Substance is cognized through its qualities, among which one is pre-eminent from the fact that it expresses the essence or nature of the thing, and that it is conceived through itself, without the aid of the others, while they presuppose it and cannot be thought without it. The former fundamental properties are termed attributes, and these secondary ones, modes or accidents. Position, figure, motion, are contingent properties of body; they presuppose that it is extended or spatial; they are *modi extensionis*, as feeling, volition, desire, representation, and judgment are possible only in a conscious being, and hence are merely modifications of thought. Extension is the essential or constitutive attribute of body, and thought of mind. Body is never without extension, and mind never without thought—*mens semper cogitat*. Guided by the self-evident principle that the non-existent has no properties, we argue from a perceived quality to a substance as its possessor or support. Substances are distinct from one another when we can clearly and distinctly cognize one without the other. Now, we can adequately conceive mind without a corporeal attribute and body without a spiritual one; the former has nothing of extension in it, the latter nothing of thought: hence thinking substance and extended substance are entirely distinct and have nothing in common. Matter and mind are

distinct *realiter*, matter and extension *idealiter* merely. Thus we attain three clear and distinct ideas, three eternal verities: *substantia infinita sive deus*, *substantia finita cogitans sive mens*, *substantia extensa sive corpus*.

By this abrupt contraposition of body and mind as reciprocally independent substances, Descartes founded that dualism, as whose typical representative he is still honored or opposed. This dualism between the material and spiritual worlds belongs to those standpoints which are valid without being ultimate truth; on the pyramid of metaphysical knowledge it takes a high, but not the highest, place. We may not rest in it, yet it retains a permanent value in opposition to subordinate theories. It is in the right against a materialism which still lacks insight into the essential distinction between mind and matter, thought and extension, consciousness and motion; it loses its validity when, with a full consideration and conservation of the distinction between these two spheres, we succeed in bridging over the gulf between them, whether this is accomplished through a philosophy of identity, like that of Spinoza and Schelling, or by an idealism, like that of Leibnitz or Fichte. In any case philosophy retains as an inalienable possession the negative conclusion, that, in view of the heterogeneity of consciousness and motion, the inner life is not reducible to material phenomena. This clear and simple distinction, which sets bounds to every confusion of spiritual and material existence, was an act of emancipation; it worked on the sultry intellectual atmosphere of the time with the purifying and illuminating power of a lightning flash. We shall find the later development of philosophy starting from the Cartesian dualism.

Descartes himself looked upon the fundamental principles which have now been discussed as merely the foundation for his life work, as the entrance portal to his cosmology. Posterity has judged otherwise; it finds his chief work in that which he considered a mere preparation for it. The start from doubt, the self-certitude of the thinking ego, the rational criterion of certitude, the question of the origin of ideas, the concept of substance, the essential distinction between conscious activity and corporeal being, and, also, the principle of thoroughgoing mechanism in the material world (from his philosophy of nature)—these are the thoughts which assure his immortality. The vestibule has brought the builder more fame, and has proved more enduring, than the temple: of the latter only the ruins remain; the former has remained undestroyed through the centuries.

2. Nature

What guarantee have we for the existence of material objects affecting our senses? That the ideas of sense do not come from ourselves, is shown by the fact that it is not in our power to determine the objects which we perceive, or the character of our perception of them. The supposition that God has caused our perceptions directly, or by means of something which has no resemblance whatever to an external object extended in three dimensions and movable, is excluded by the fact that God is not a deceiver. In reliance on God's veracity we may accept as true whatever the reason declares concerning body, though not all the reports of the senses, which so often deceive us. At the instance of the senses we clearly and distinctly perceive matter distinct from our mind and from God, extended in three dimensions, length, breadth, and depth, with variously formed and variously moving parts, which occasion in us sensations of many kinds. The belief that perception makes known things as they really are is a prejudice of sense to be discarded; on the contrary, it merely informs us concerning the utility or harmfulness of objects, concerning their relation to man as a being composed of soul and body. (The body is that material thing which is very intimately joined with the mind, and occasions

in the latter certain feelings, e.g., pain, which as merely cogitative it would not have.) Sense qualities, as color, sound, odor, cannot constitute the essence of matter, for their variation or loss changes nothing in it; I can abstract from them without the material thing disappearing. There is one property, however, extensive magnitude (*quantitas*), whose removal would imply the destruction of matter itself. Thus I perceive by pure thought that the essence of matter consists in extension, in that which constitutes the object of geometry, in that magnitude which is divisible, figurable, and movable. This thesis (*corpus = extensio sive spatium*) is next defended by Descartes against several objections. In reply to the objection drawn from the condensation and rarefaction of bodies, he urges that the apparent increase or decrease in extension is, in fact, a mere change of figure; that the rarefaction of a body depends on the increase in size of the intervals between its parts, and the entrance into them of foreign bodies, just as a sponge swells up when its pores become filled with water and, therefore, enlarged. The demand that the pores, and the bodies which force their way into them, should always be perceptible to the senses, is groundless. He meets the second point, that we call extension by itself *space*, and not body, by maintaining that the distinction between extension and corporeal substance is a distinction in thought, and not in reality; that attribute and substance, mathematical and physical bodies, are not distinct in fact but only in our thought of them. We apply the term space to extension in general, as an abstraction, and body to a given individual, determinate, limited extension. In reality, wherever extension is, there substance is also,—the non-existent has no extension,—and wherever space is, there matter is also. Empty space does not exist. When we say a vessel is empty, we mean that the bodies which fill it are imperceptible; if it were absolutely empty its sides would touch. Descartes argues against the atomic theory and against the finitude of the world, as he argues against empty space: matter, as well as space, has no smallest, indivisible parts, and the extension of the world has no end. In the identification of space and matter the former receives fullness from the latter, and the latter unlimitedness from the former, both internal unlimitedness (endless divisibility) and external (boundlessness). Hence there are not several matters but only one (homogeneous) matter, and only one (illimitable) world.

Matter is divisible, figurable, movable quantity. Natural science needs no other principles than these indisputably true conceptions, by which all natural phenomena may be explained, and must employ no others. The most important is motion, on which all the diversity of forms depends. Corporeal being has been shown to be extension; corporeal becoming is motion. Motion is defined as “the transporting of one part of matter, or of one body, from the vicinity of those bodies that are in immediate contact with it, or which we regard as at rest, to the vicinity of other bodies.” This separation of bodies is reciprocal, hence it is a matter of choice which shall be considered at rest. Besides its own proper motion in reference to the bodies in its immediate vicinity, a body can participate in very many other motions: the traveler walking back and forth on the deck of a ship, for instance, in the motion of the vessel, of the waves, and of the earth. The common view of motion as an activity is erroneous; since it requires force not only to set in motion bodies which are at rest, but also to stop those which are in motion, it is clear that motion implies no more activity than rest. Both are simply different states of matter. Since there is no empty space, each motion spreads to a whole circle of bodies: A forces B out of its place, B drives out C, and so on, until Z takes up the position which A has left.

The ultimate cause of motion is God. He has created bodies with an original measure of motion and rest, and, in accordance with his immutable character, he preserves this quantity of motion unchanged: it remains constant in the world as a whole, though it varies in individual bodies. For with the power to create or destroy motion bodies lack, further, the power to alter their quantity of motion. By the side of God, the primary cause of motion, the laws of motion

appear as secondary causes. The first of these is the one become familiar under the name, law of inertia: Everything continues of itself in the state (of motion or rest) in which it is, and changes its state only as a result of some extraneous cause. The second of these laws, which are so valuable in mechanics, runs: Every portion of matter tends to continue a motion which has been begun in the same direction, hence in a straight line, and changes its direction only under the influence of another body, as in the case of the circle above described. Descartes bases these laws on the unchangeableness of God and the simplicity of his world-conserving (*i.e.*, constantly creative) activity. The third law relates to the communication of motion; but Descartes does not recognize the equality of action and reaction as universally as the fact demands. If a body in motion meets another body, and its power (to continue its motion in a straight line) is less than the resistance of the other on which it has impinged, it retains its motion, but in a different direction: it rebounds in the opposite direction. If, on the contrary, its force is greater, it carries the other body along with it, and loses so much of its own motion as it imparts to the latter. The seven further rules added to these contain much that is erroneous. As *actio in distans* is rejected, all the phenomena of motion are traced back to pressure and impulse. The distinction between fluid and solid bodies is based on the greater or less mobility of their parts.

The leading principle in the special part of the Cartesian physics,—we can only briefly sketch it,—which embraces, first, celestial, and, then, terrestrial phenomena, is the axiom that we cannot estimate God's power and goodness too highly, nor ourselves too meanly. It is presumptuous to seek to comprehend the purposes of God in creation, to consider ourselves participants in his plans, to imagine that things exist simply for our sake—there are many things which no man sees and which are of advantage to none. Nothing is to be interpreted teleologically, but all must be interpreted from clearly known attributes, hence purely mechanically. After treating of the distances of the various heavenly bodies, of the independent light of the sun and the fixed stars and the reflected light of the planets, among which the earth belongs, Descartes discusses the motion of the heavenly bodies. In reference to the motion of the earth he seeks a middle course between the theories of Copernicus and Tycho Brahé. He agrees with Copernicus in the main point, but, in reliance on his definition of motion, maintains that the earth is at rest, *viz.*, in respect to its immediate surroundings. It is clear that the harmony of his views with those of the Church (though it was only a verbal agreement) was not unwelcome to him. According to his hypothesis,—as he suggests, perhaps an erroneous hypothesis,—the fluid matter which fills the heavenly spaces, and which may be compared to a vortex or whirlpool, circles about the sun and carries the planets along with it. Thus the planets move in relation to the sun, but are at rest in relation to the adjacent portions of the matter of the heavens. In view of the biblical doctrine, according to which the world and all that therein is was created at a stroke, he apologetically describes his attempt to explain the origin of the world from chaos under the laws of motion as a scientific fiction, intended merely to make the process more comprehensible. It is more easily conceivable, if we think of the things in the world as though they had been gradually formed from elements, as the plant develops from the seed. We now pass to the Cartesian anthropology, with its three chief objects: the body, the soul, and the union of the two.

3. Man

The human body, like all organic bodies, is a machine. Artificial automata and natural bodies are distinguished only in degree. Machines fashioned by the hand of man perform their functions by means of visible and tangible instruments, while natural bodies employ organs which, for the most part, are too minute to be perceived. As the clock-maker constructs a clock from wheels

and weights so that it is able to go of itself, so God has made man's body out of dust, only, being a far superior artist, he produces a work of art which is better constructed and capable of far more wonderful movements. The cause of death is the destruction of some important part of the machine, which prevents it from running longer; a corpse is a broken clock, and the departure of the soul comes only as a result of death. The common opinion that the soul generates life in the body is erroneous. It is rather true that life must be present before the soul enters into union with the body, as it is also true that life must have ended before it dissolves the bond.

The sole principles of physiology are motion and heat. The heat (vital warmth, a fire without light), which God has put in the heart as the central organ of life, has for its function the promotion of the circulation of the blood, in the description of which Descartes mentions with praise the discoveries of Harvey (*De Motu Cordis et Sanguinis in Animalibus*, 1628). From the blood are separated its finest, most fiery, and most mobile parts, called by Descartes "animal spirits" (*spiritus animales sive corporales*), and described as a "very subtle wind" or "pure and vivid flame," which ascend into the cavities of the brain, reach the pineal gland suspended in its center (*conarion, glans pinealis, glandula*), pass into the nerves, and, by their action on the muscles connected with the nerves, effect the motions of the limbs. These views refer to the body alone, and so are as true of animals as of men. If automata existed similar to animals in all respects, both external and internal, it would be absolutely impossible to distinguish them from real animals. If, however, they were made to resemble human bodies, two signs would indicate their unreality—we would find no communication of ideas by means of language, and also an absence of those bodily movements which take their origin in the reason (and not merely in the constitution of the body). The only thing which raises man above the brute is his rational soul, which we are on no account to consider a product of matter, but which is an express creation of God, superadded. The union of the soul or the mind (*anima sive mens*) with the body is, it is true, not so loose that the mind merely dwells in the body, like a pilot in a ship, nor, on the other hand, in view of the essential contrariety of the two substances, is it so intimate as to be more than a *unio compositionis*. Although the soul is united to the whole body, an especially active intercourse between them is developed at a single point, the pineal gland, which is distinguished by its central, protected position, above all, by the fact that it is the only cerebral organ that is not double. This gland, together with the animal spirits passing to and from it, mediates between mind and body; and as the point of union for the twofold impressions from the (right and left) eyes and ears, without which objects would be perceived double instead of single, is the seat of the soul. Here the soul exercises a direct influence on the body and is directly affected by it; here it dwells, and at will produces a slight, peculiar movement of the gland, through this a change in the course of the animal spirits (for it is not capable of generating motion, but only of changing its direction), and, finally, movements of the members; just as, on the other hand, it remarks the slightest change in the course of the *spiritus* through a corresponding movement of the gland, whose motions vary according to the sensuous properties of the object to be perceived, and responds by sensations. Although Descartes thus limits the direct interaction of soul and body to a small part of the organism, he makes an exception in the case of *memoria*, which appears to him to be more of a physical than a psychological function, and which he conjectures to be diffused through the whole brain.

In spite of the comprehensive meaning which Descartes gives to the notion *cogitatio*, it is yet too narrow to leave room for an *anima vegetativa* and an *anima sensitiva*. Whoever makes mind and soul equivalent, holds that their essence consists in conscious activity alone, and interprets sensation as a mode of thought, cannot escape the paradox of denying to animals the possession of a soul. Descartes does not shrink from such a conclusion. Animals are mere machines; they

are bodies animated, but soulless; they lack conscious perception and appetition, though not the appearance of them. When a clock strikes seven it knows nothing of the fact; it does not regret that it is so late nor long soon to be able to strike eight; it wills nothing, feels nothing, perceives nothing. The lot of the brute is the same. It sees and hears nothing, it does not hunger or thirst, it does not rejoice or fear, if by these anything more than mere corporeal phenomena is to be meant; of all these it possesses merely the unconscious material basis; it moves and motion goes on in it—that is all. The psychology of Descartes, which has had important results, divides *cogitationes* into two classes: *actiones* and *passiones*. Action denotes everything which takes its origin in, and is in the power of, the soul; passion, everything which the soul receives from without, in which it can make no change, which is impressed upon it. The further development of this distinction is marred by the crossing of the most diverse lines of thought, resulting in obscurities and contradictions. Descartes's simple, naïve habits of thought and speech, which were those of a man of the world rather than of a scholar, were quite incompatible with the adoption and consistent use of a finely discriminated terminology; he is very free with *sive*, and not very careful with the expressions *actio*, *passio*, *perceptio*, *affectio*, *volitio*. First he equates activity and willing, for the will springs exclusively from the soul—it is only in willing that the latter is entirely independent; while, on the other hand, passivity is made equivalent to representation and cognition, for the soul does not create its ideas, but receives them,—sensuous impressions coming to her quite evidently from the body. These equations, “*actio*—the practical, *passio* = the theoretical function,” are soon limited and modified, however. The natural appetites and affections are forms of volition, it is true, but not free products of the mind, for they take their origin in its connection with the body. Further, not all perceptions have a sensuous origin; when the soul makes free use of its ideas in imagination, especially when in pure thought it dwells on itself, when without the interference of the imagination it gazes on its rational nature, it is by no means passive merely. Every act of the will, again, is accompanied by the consciousness of volition. The *volitio* is an activity, the *cogitatio volitionis* a passivity; the soul affects itself, is passively affected through its own activity, is at the same instant both active and passive.

Thus not every volition, *e.g.* sensuous desire, is action nor all perception, *e.g.* that of the pure intellect, passion. Finally, certain psychical phenomena fall indifferently under the head of perception or of volition, *e.g.*, pain, which is both an indistinct idea of something and an impulse to shun it....

Accordingly six grades of mental function are to be distinguished: (1) The external senses. (2) The natural appetites. (3) The passions (which, together with the natural appetites, constitute the internal senses, and from which the mental emotions produced by the intellect are quite distinct). (4) The imagination with its two divisions, passive memory and active phantasy. (5) The intellect or reason. (6) The will. These various stages or faculties are, however, not distinct parts of the soul, as in the old psychology, in opposition to which Descartes emphatically defends the *unity of the soul*. It is one and the same psychical power that exercises the higher and the lower, the rational and the sensuous, the practical and the theoretical activities.

Of the mental functions, whether representative images, perceptions, or volitions, a part are referred to body (to parts of our own body, often also to external objects), and produced by the body (by the animal spirits and, generally, by the nerves as well), while the rest find both object and cause in the soul. Intermediate between the two classes stand those acts of the will which are caused by the soul, but which relate to the body, *e.g.*, when I resolve to walk or leap; and, what is more important, the *passions*, which relate to the soul itself, but which are called forth, sustained, and intensified by certain motions of the animal spirits. Since only those beings

which consist of a body as well as a soul are capable of the passions, these are specifically human phenomena. These affections, though very numerous, may be reduced to a few simple or primary ones, of which the rest are mere specializations or combinations. Descartes enumerates six primitive passions (which number Spinoza afterward reduced one-half)—*admiratio, amor et odium, cupiditas (désir), gaudium et tristitia*. The first and the fourth have no opposites, the former being neither positive nor negative, and the latter both at once. Wonder, which includes under it esteem and contempt, signifies interest in an object which neither attracts us by its utility nor repels us by its hurtfulness, and yet does not leave us indifferent. It is aroused by the powerful or surprising impression made by the extraordinary, the rare, the unexpected. Love seeks to appropriate that which is profitable; hate, to ward off that which is harmful, to destroy that which is hostile. Desire or longing looks with hope or fear to the future. When that which is feared or hoped for has come to pass, joy and grief come in, which relate to existing good and evil, as desire relates to those to come.

The Cartesian theory of the passions forms the bridge over which its author passes from psychology to ethics. No soul is so weak as to be incapable of completely mastering its passions, and of so directing them that from them all there will result that joyous temper advantageous to the reason. The freedom of the will is unlimited. Although a direct influence on the passions is denied it,—it can neither annul them merely at its bidding, nor at once reduce them to silence, at least, not the more violent ones,—it still has an indirect power over them in two ways. During the continuance of the affection (e.g., fear) it is able to arrest the bodily movements to which the affection tends (flight), though not the emotion itself, and, in the intervals of quiet, it can take measures to render a new attack of the passion less dangerous. Instead of enlisting one passion against another, a plan which would mean only an appearance of freedom, but in fact a continuance in bondage, the soul should fight with its own weapons, with fixed maxims (*judicia*), based on certain knowledge of good and evil. The will conquers the emotions by means of principles, by clear and distinct knowledge, which sees through and corrects the false values ascribed to things by the excitement of the passions. Besides this negative requirement, “subjection of the passions,” Descartes’ contributions to ethics—in the letters to Princess Elizabeth on human happiness, and to Queen Christina on love and the highest good—were inconsiderable. Wisdom is the carrying out of that which has been seen to be best, virtue is steadfastness, sin inconstancy therein. The goal of human endeavor is peace of conscience, which is attained only through the determination to be virtuous, i.e., to live in harmony with self.

Besides its ethical mission, the will has allotted to it the theoretical function of affirmation and negation, i.e., of judgment. If God in his veracity and goodness has bestowed on man the power to know truth, how is misuse of this power, how is error possible? Single sensations and ideas cannot be false, but only judgments—the reference of ideas to objects. Judgment or assent is a matter of the will; so that when it makes erroneous affirmations or negations, when it prefers the false judgment to the true, it alone is guilty. Our understanding is limited, our will unlimited; the latter reaches further than the former, and can assent to a judgment even before its constituent parts have attained the requisite degree of clearness. False judgment is prejudgment, for which we can hold neither God nor our own nature responsible. The possibility of error, as well as the possibility of avoiding error, resides in the will. This has the power to postpone its assent or dissent, to hold back its decision until the ideas have become entirely clear and distinct. The supreme perfection is the *libertas non errandi*. Thus knowledge itself becomes a moral function; the true and the good are in the last analysis identical. The contradiction with which Descartes has been charged, that he makes volition and cognition

reciprocally determinative, that he bases moral goodness on the clearness of ideas and *vice versa*, does not exist. We must distinguish between a theoretical and a practical stadium in the will; it is true of the latter that it depends on knowledge of the right, of the former that the knowledge of the right is dependent on it. In order to the possibility of moral *action* the will must conform to clear judgment; in order to the production of the latter the will must *be* moral. It is the unit-soul, which first, by freely avoiding overhasty judgment, cognizes the truth, to exemplify it later in moral conduct.

Falckenberg, Richard. *History of Modern Philosophy: From Nicholas of Cusa to the Present Time*. Trans. A.C. Armstrong. New York: Henry Holt and Co., 1893.

© SophiaOmni, 2010. The specific electronic form of this text is copyright. Permission is granted to print out copies for educational purposes and for personal use only. No permission is granted for commercial use.