

Chapter 1 : Project MUSE - Cartesian Intuitions, Humean Puzzles, and the Buddhist Conception of the Self

Sartre also upheld the Cartesian position that the self is essentially conscious by rejecting the theory of the unconscious proposed by the Austrian psychoanalyst Sigmund Freud (1856-1939). Contemporary influences. Some aspects of Cartesian metaphysics and epistemology were still strongly defended in the 20th century.

He adopted from Galileo the view that physical things are not what they are commonly taken to be on the strength of sense experience—namely, possessors. The Cartesian system Metaphysically and epistemologically, Cartesianism is a species of rationalism, because Cartesians hold that knowledge—indeed, certain knowledge—can be derived through reason from innate ideas. It is thus opposed to the tradition of empiricism, which originated with Aristotle—bce and according to which all knowledge is based on sense experience and is therefore because sense experience is fallible only probable. In practice, however, Cartesians developed probabilistic scientific theories from observation and experiment, as did empiricists. Cartesians were forced to satisfy themselves with uncertainty in science because they believed that God is omnipotent and that his will is entirely free; from this it follows that God could, if he so wished, make any apparent truth a falsehood and any apparent falsehood—even a logical contradiction—a truth. The human intellect, by contrast, is finite; thus, humans can be certain only of what God reveals and of the fact that they and God exist. In the *Meditations*, Descartes also argues that because we are finite, we cannot generate an idea of infinity, yet we have an idea of an infinite God, and thus God must exist to cause us to have that idea. He also says that although we have no direct acquaintance with the material world, not even with our own bodies, but only with ideas that represent the material world, we cannot know the material world directly. We know it exists only because God is not a deceiver. Cartesians adopted an ontological dualism of two finite substances, mind spirit or soul and matter. The essence of mind is self-conscious thinking; the essence of matter is extension in three dimensions. God is a third, infinite substance, whose essence is necessary existence. God unites minds with bodies to create a fourth, compound substance, human beings. Humans obtain general knowledge by contemplating innate ideas of mind, matter, and God. For knowledge of particular events in the world, however, humans depend on bodily motions that are transmitted from sense organs through nerves to the brain to cause sensible ideas—i. Thus, for Cartesians, knowledge of the material world is indirect. This dualism of mind and matter gives rise to serious problems concerning causal interaction and knowledge. Given that mind and matter are so radically different, how can the body cause the mind to have sensible ideas? Likewise, how can the mind cause the body to move? How can the mind know the material world by way of sensible ideas, which are mental? In other words, how can ideas represent the properties of material objects, given that mind and matter are essentially distinct? Various lines of Cartesian philosophy developed from different answers to these questions. He invented analytic geometry—a method of solving geometric problems algebraically and algebraic problems geometrically—which is the foundation of the infinitesimal calculus developed by Sir Isaac Newton and Gottfried Wilhelm Leibniz. The method discussed in his *Discourse on Method* is basically an extension of analytic mathematical method, which he applies to all branches of science. Cartesian mechanism The first Cartesians were Dutch and French physicists and physiologists who attempted to explain physical and biological phenomena solely in mechanistic terms—i. Another disciple, the French theologian and philosopher Nicolas Malebranche, believed with Descartes that animals are merely machines and thus incapable of thought or feeling; he is said to have kicked a pregnant dog and then to have chastised critics such as Jean de La Fontaine, the French writer of animal fables, for expending their emotions over such inconsiderable creatures rather than concerning themselves with human misery. Advancements in mechanical arts and crafts provided the practical foundation of Cartesian mechanism. In the 17th century, mechanical inventions such as statues that walked and talked by application of levers and pulleys and organs that played by waterpower were well known. The mathematician Blaise Pascal invented a calculating machine based on principles worked out by clock makers and inventors of spinning and knitting machines, such as the Englishman William Lee. According to Descartes, the material universe consists of an indefinitely large plenum of infinitely divisible matter, which is

separated into the subtle matter of space and the denser matter of bodies by a determinate quantity of motion that is imparted and conserved by God. Bodies swirl like leaves in a whirlwind in vortices as great as that in which the planets sweep around the Sun and as small as that of tiny spinning globes of light. All bodily joinings and separations are mechanical, resulting from the collisions of other moving bodies. Because the amount of motion is conserved according to the laws of nature, the Cartesian material world exhibits a kind of determinism. After the initial impulse, the world evolves lawfully. If the speeds and positions of all the whirling portions of matter in the universe at any one moment could be completely described, then a complete description of their speeds and positions at any later time could be deduced through calculations based on the laws of motion. Of course, only God has the infinite intellect required for performing these calculations. Although God is the primary cause of the existence of the material universe and of the laws of nature, all physical events—“all movements and interactions of bodies”—result from secondary causes—that is, from bodies colliding with each other. God stands merely for the uniformity and consistency of the laws of nature. According to popular versions of this account, light consists of tiny spinning globes of highly elastic subtle matter that fly through the air in straight lines and bounce like balls at angles consistent with the optical laws of reflection and refraction. The spectrum of colours observed when light passes through a triangular prism is explained by the fact that the globes pass more slowly through thicker parts of the prism than they do through thinner ones. The same spectrum of colours occurs when light passes through thicker and thinner parts of raindrops, giving rise to rainbows. Although Newton and Leibniz later showed that the simple mechanistic principles underlying these accounts were incapable of explaining the forces of gravitation and chemical bonding, it is noteworthy that the Cartesian theory of light is similar in principle to the contemporary view, according to which the different colours are produced by light at different wavelengths. By the end of the 17th century, most of Cartesian physics had been superseded by Newtonian mathematical physics. Nevertheless, this progress would have pleased Descartes, who said that the advancement of scientific knowledge would take centuries of work. Mechanism versus Aristotelianism Cartesian mechanism was opposed to scholastic Aristotelian science, which was supported by both Roman Catholic and Protestant theologians. These thinkers held that, because all things are created by God with a given nature, there can be no evolutionary development of animals or of the universe as a whole. The soul is the essence, or nature, of the organism and its final cause—“i”. Thus, the development of an acorn into an oak tree is explained by the fact that the acorn possesses a form that directs it toward this end. Descartes rejected both the teleological, animistic view and the related theory of alchemy that there are vital forces in things. Cartesians denied the existence of what they considered occult or magical forces, insisting instead that only God and humans have spirits, wills, purposes, and ends. They conceived both animate and inanimate bodies as having no goals but as simply being pushed around passively. For Cartesians, science therefore consisted of looking not for final causes but rather for the laws that govern the motions of bodies. By insisting on human free will, Descartes placed the human soul or mind, like God, outside deterministic nature. Mind, body, and humanity Most Cartesians believed that the mind and body interact. As for the question of how ideas represent objects, Rohault spoke for all Cartesians when he asserted that God can make ideas represent material bodies without resembling them; no further explanation is necessary. In both of these replies, the Cartesians can be seen to abdicate philosophy for mysticism and theology. According to the Thomists adherents of the Aristotelian philosophical and theological system developed by St. Thomas Aquinas, the soul or mind is the form of the body. Descartes, by contrast, contended that the notion of substantial form is contradictory, because it assumes the separate existence of something that by definition can exist only in unity with matter. For Cartesians, the mind or soul is a substance existing in itself, independently of matter; thus, they were able to explain immortality without having to rely on the dubious assumption that the soul-form is a kind of substance. This view, however, creates a serious problem concerning the ultimate nature of human beings. According to Cartesians, sensible ideas arise from the union of mind and body for the sole purpose of preserving the body by presenting harmful things as painful and beneficial things as pleasurable. Human beings learn by experience what to seek and to avoid, and the memory of these experiences is preserved in the brain. Once the body dies, however, both the need for sensible ideas and their memory traces in the brain are destroyed. All the soul knows of matter after death is the general idea

of extension. Because all bodily associations and memories are eliminated, however, individual personality is lost; each human being survives death only as an impersonal soul, identical to all other bodiless souls. Like the notion that animals are mere machines, the Cartesian conclusion that the sensible manifestations of this life are neither continued nor remembered in the next was unpopular. Science and religion In addition to the dualism of mind and matter in Cartesian metaphysics, there is a more general dualism in Cartesianism as a whole between a rationalist metaphysics and epistemology, which entails the existence of innate ideas of mind, matter, and God and the possibility of obtaining certain knowledge through reason, and an empiricist and mechanistic physics, according to which scientific knowledge, which is never certain, is gradually accumulated through observation and experience of the material world. Although Descartes publicly denied an interest in theology, in letters he offered mechanistic explanations of transubstantiation. Rohault appealed to the Cartesian view that sensible ideas are caused by configurations of the parts of material bodies to argue that, if bread and wine were replaced by flesh and blood whose parts had exactly the same configurations, the flesh and blood would look, feel, and taste like bread and wine. A deterministic Cartesian ethics was developed by the Flemish Calvinist philosopher Arnold Geulincx. In his view, although one can do only what God has willed, one is free to accept what one must do willingly or unwillingly. This Stoic ethics, with its affinity to Calvinist and Jansenist predestinarianism, is as deterministic as Cartesian physics. Malebranche was convinced by the argument urged most strongly by the French skeptic Simon Foucher that, because they are so radically different, Cartesian mind and matter cannot interact. Malebranche held that, on every occasion when human bodies interact with the world, God provides the appropriate sensible ideas in human minds. And, on every occasion when human minds will that their bodies move, God makes them move. Thus, there is no direct causal interaction between mind and body; there are only separate but parallel sequences of mental and material events intermediated by God. Foucher also argued that, because sensible ideas cannot resemble material things, they cannot represent them either, and they thus cannot be a source of knowledge of the material world. In other words, because sensible ideas such as colours, tactile feelings, sounds, odours, and tastes as they are experienced by the mind are utterly unlike the properties of material bodies, which are limited to size, shape, position, and motion or rest, it follows that these ideas cannot give knowledge of the material world as it really is. In response, Malebranche, like Descartes before him, simply denied that ideas must resemble their objects to represent them. Regarding the possibility that one might have sensible ideas of a nonexistent world, Malebranche said tersely that the first chapter of Genesis assures the existence of the material world. As to how human ideas of this world are true, Malebranche offered the Platonic view that ideas of all things reside in God and that, on appropriate occasions, God illuminates these ideas for human observation. Thus, human beings see all things in God and can rest assured in his goodness. Unlike Descartes, he argued that introspection gives no knowledge of the essence of the mind. This view prompted the English empiricist philosopher John Locke to suggest that, for all human beings know, matter might be able to think. Later philosophers The rationalist metaphysics of the Dutch-Jewish philosopher Benedict de Spinoza derives from Descartes. Spinoza wrote his Ethics in mathematico-deductive form, with definitions, axioms, and derived theorems. His metaphysics, which is simultaneously monistic, pantheistic, and deistic, holds that there is only one substance, that this one substance is God, and that God is the same as the world. The one substance has an infinite number of attributes, each of which expresses the totality of the world or God, though the only attributes known to human beings are mind and matter. All attributes are parallel in every respect; that is, for every idea expressed in the mental attribute, there is a parallel body in the material attribute, and vice versa. Thus, though mind and matter do not interact, for Spinoza as for Malebranche they appear to do so. The Irish radical empiricist and bishop George Berkeley developed another monistic metaphysical system. Berkeley managed to avoid the problem of mind-body interaction by taking the extreme step of denying the existence of matter. Bodies, according to him, are only collections of sensible ideas that are presented to the human mind in lawful order by God. Because there is no material world, there is also no skeptical problem about whether ideas truly represent physical reality. Instead, all ideas are known directly. By contrast, the English materialist philosopher Thomas Hobbes did away with mind as a mental substance by asserting that only matter exists. For Hobbes, the mind is the same as the brain, and thoughts or

ideas consist of nothing more than motions of brain matter. Because the mind is material, it is capable of causing bodily motions in response to sensory stimuli; and because ideas are material, they can resemble, and thus represent, material bodies. The way of ideas and the self Two important themes in the history of modern philosophy can be traced to Descartes.

Chapter 2 : René Descartes (Stanford Encyclopedia of Philosophy)

In philosophy, the Cartesian Self, part of a thought experiment, is an individual's mind, separate from the body and the outside world, thinking about itself and its existence. It is distinguished from the Cartesian Other, anything other than the Cartesian self.

In *Discourse on the Method*, Descartes recalls, I entirely abandoned the study of letters. Resolving to seek no knowledge other than that of which could be found in myself or else in the great book of the world, I spent the rest of my youth traveling, visiting courts and armies, mixing with people of diverse temperaments and ranks, gathering various experiences, testing myself in the situations which fortune offered me, and at all times reflecting upon whatever came my way so as to derive some profit from it. Given his ambition to become a professional military officer, in 1614, Descartes joined, as a mercenary, the Protestant Dutch States Army in Breda under the command of Maurice of Nassau, [24] and undertook a formal study of military engineering, as established by Simon Stevin. Descartes, therefore, received much encouragement in Breda to advance his knowledge of mathematics. Together they worked on free fall, catenary, conic section, and fluid statics. Both believed that it was necessary to create a method that thoroughly linked mathematics and physics. While within, he had three dreams [31] and believed that a divine spirit revealed to him a new philosophy. However, it is likely that what Descartes considered to be his second dream was actually an episode of exploding head syndrome. Descartes discovered this basic truth quite soon: He visited Basilica della Santa Casa in Loreto, then visited various countries before returning to France, and during the next few years spent time in Paris. It was there that he composed his first essay on method: Descartes returned to the Dutch Republic in 1628. In Amsterdam, he had a relationship with a servant girl, Helena Jans van der Strom, with whom he had a daughter, Francine, who was born in 1629 in Deventer. She died of scarlet fever at the age of 5. Nevertheless, in 1629 he published part of this work [44] in three essays: The first was never to accept anything for true which I did not clearly know to be such; that is to say, carefully to avoid precipitancy and prejudice, and to comprise nothing more in my judgment than what was presented to my mind so clearly and distinctly as to exclude all ground of doubt. In 1641 he published a metaphysics work, *Meditationes de Prima Philosophia* *Meditations on First Philosophy*, written in Latin and thus addressed to the learned. In 1642, Cartesian philosophy was condemned at the University of Utrecht, and Descartes was obliged to flee to the Hague, and settled in Egmond-Binnen. Descartes began through Alfonso Polloti, an Italian general in Dutch service a long correspondence with Princess Elisabeth of Bohemia, devoted mainly to moral and psychological subjects. This edition Descartes also dedicated to Princess Elisabeth. In the preface to the French edition, Descartes praised true philosophy as a means to attain wisdom. He identifies four ordinary sources to reach wisdom and finally says that there is a fifth, better and more secure, consisting in the search for first causes. She was interested in and stimulated Descartes to publish the "*Passions of the Soul*", a work based on his correspondence with Princess Elisabeth. There, Chanut and Descartes made observations with a Torricellian barometer, a tube with mercury. Challenging Blaise Pascal, Descartes took the first set of barometric readings in Stockholm to see if atmospheric pressure could be used in forecasting the weather. Soon it became clear they did not like each other; she did not like his mechanical philosophy, nor did he appreciate her interest in Ancient Greek. By 15 January, Descartes had seen Christina only four or five times. On 1 February he contracted pneumonia and died on 11 February. Pies, a German scholar, published a book questioning this account, based on a letter by Johann van Wullen, who had been sent by Christina to treat him, something Descartes refused, and more arguments against its veracity have been raised since. Cartesianism Initially, Descartes arrives at only a single first principle: Thought cannot be separated from me, therefore, I exist *Discourse on the Method* and *Principles of Philosophy*. Most famously, this is known as *cogito ergo sum* English: Therefore, Descartes concluded, if he doubted, then something or someone must be doing the doubting, therefore the very fact that he doubted proved his existence. Descartes concludes that he can be certain that he exists because he thinks. But in what form? He perceives his body through the use of the senses; however, these have previously been unreliable. So Descartes determines that the only indubitable knowledge is that he is a thinking thing.

Thinking is what he does, and his power must come from his essence. Descartes defines "thought" cogitatio as "what happens in me such that I am immediately conscious of it, insofar as I am conscious of it". Thinking is thus every activity of a person of which the person is immediately conscious. In this manner, Descartes proceeds to construct a system of knowledge, discarding perception as unreliable and, instead, admitting only deduction as a method. Known as Cartesian dualism or Mind-Body Dualism, his theory on the separation between the mind and the body went on to influence subsequent Western philosophies. In *Meditations on First Philosophy*, Descartes attempted to demonstrate the existence of God and the distinction between the human soul and the body. While many contemporary readers of Descartes found the distinction between mind and body difficult to grasp, he thought it was entirely straightforward. Descartes employed the concept of modes, which are the ways in which substances exist. In *Principles of Philosophy*, Descartes explained, "we can clearly perceive a substance apart from the mode which we say differs from it, whereas we cannot, conversely, understand the mode apart from the substance". To perceive a mode apart from its substance requires an intellectual abstraction, [72] which Descartes explained as follows: The intellectual abstraction consists in my turning my thought away from one part of the contents of this richer idea the better to apply it to the other part with greater attention. Thus, when I consider a shape without thinking of the substance or the extension whose shape it is, I make a mental abstraction. Thus Descartes reasoned that God is distinct from humans, and the body and mind of a human are also distinct from one another. But that the mind was utterly indivisible: Everything that happened, be it the motion of the stars or the growth of a tree, was supposedly explainable by a certain purpose, goal or end that worked its way out within nature. Aristotle called this the "final cause", and these final causes were indispensable for explaining the ways nature operated. With his theory on dualism Descartes fired the opening shot for the battle between the traditional Aristotelian science and the new science of Kepler and Galileo which denied the final cause for explaining nature. For Descartes the only place left for the final cause was the mind or *res cogitans*. Therefore, while Cartesian dualism paved the way for modern physics, it also held the door open for religious beliefs about the immortality of the soul. A human was according to Descartes a composite entity of mind and body. Descartes gave priority to the mind and argued that the mind could exist without the body, but the body could not exist without the mind. In *Meditations* Descartes even argues that while the mind is a substance, the body is composed only of "accidents". If this were not so, I, who am nothing but a thinking thing, would not feel pain when the body was hurt, but would perceive the damage purely by the intellect, just as a sailor perceives by sight if anything in his ship is broken. What exactly is the relationship of union between the mind and the body of a person? It was this theory of innate knowledge that later led philosopher John Locke to combat the theory of empiricism, which held that all knowledge is acquired through experience. These animal spirits were believed to be light and roaming fluids circulating rapidly around the nervous system between the brain and the muscles, and served as a metaphor for feelings, like being in high or bad spirit. These animal spirits were believed to affect the human soul, or passions of the soul. Descartes distinguished six basic passions: All of these passions, he argued, represented different combinations of the original spirit, and influenced the soul to will or want certain actions. He argued, for example, that fear is a passion that moves the soul to generate a response in the body. In line with his dualist teachings on the separation between the soul and the body, he hypothesized that some part of the brain served as a connector between the soul and the body and singled out the pineal gland as connector. Thus different motions in the gland cause various animal spirits. But he also argued that the animal spirits that moved around the body could distort the commands from the pineal gland, thus humans had to learn how to control their passions. He argued that external motions such as touch and sound reach the endings of the nerves and affect the animal spirits. Heat from fire affects a spot on the skin and sets in motion a chain of reactions, with the animal spirits reaching the brain through the central nervous system, and in turn animal spirits are sent back to the muscles to move the hand away from the fire. He challenged the views of his contemporaries that the soul was divine, thus religious authorities regarded his books as dangerous. Descartes believed that the brain resembled a working machine and unlike many of his contemporaries believed that mathematics and mechanics could explain the most complicated processes of the mind. In the 20th century Alan Turing advanced computer science based on mathematical biology as inspired by Descartes. His theories

on reflexes also served as the foundation for advanced physiological theories more than years after his death. The physiologist Ivan Pavlov was a great admirer of Descartes. Like the rest of the sciences, ethics had its roots in metaphysics. However, as he was a convinced rationalist, Descartes clearly states that reason is sufficient in the search for the goods that we should seek, and virtue consists in the correct reasoning that should guide our actions. Nevertheless, the quality of this reasoning depends on knowledge, because a well-informed mind will be more capable of making good choices, and it also depends on mental condition. For this reason, he said that a complete moral philosophy should include the study of the body. He discussed this subject in the correspondence with Princess Elisabeth of Bohemia, and as a result wrote his work *The Passions of the Soul*, that contains a study of the psychosomatic processes and reactions in man, with an emphasis on emotions or passions. This is known as his "Provisional Morals". Because God is benevolent, he can have some faith in the account of reality his senses provide him, for God has provided him with a working mind and sensory system and does not desire to deceive him. From this supposition, however, he finally establishes the possibility of acquiring knowledge about the world based on deduction and perception. Regarding epistemology, therefore, he can be said to have contributed such ideas as a rigorous conception of foundationalism and the possibility that reason is the only reliable method of attaining knowledge. He, nevertheless, was very much aware that experimentation was necessary to verify and validate theories. One of these is founded upon the possibility of thinking the "idea of a being that is supremely perfect and infinite," and suggests that "of all the ideas that are in me, the idea that I have of God is the most true, the most clear and distinct. His attempt to ground theological beliefs on reason encountered intense opposition in his time, however:

Chapter 3 : Dualism and the Self: A Cross-Cultural Perspective

This entry concerns dualism in the philosophy of mind. The term 'dualism' has a variety of uses in the history of thought. In general, the idea is that, for some particular domain, there are two fundamental kinds or categories of things or principles.

From this ancient Greek tradition emerged the need, for anyone who aspired to understand the deeper realities, to think systematically, to trace implications broadly and deeply, for only thinking that is comprehensive, well-reasoned, and responsive to objections can take us beyond the surface. In the Middle Ages, the tradition of systematic critical thinking was embodied in the writings and teachings of such thinkers as Thomas Aquinas Summa Theologica who to ensure his thinking met the test of critical thought, always systematically stated, considered, and answered all criticisms of his ideas as a necessary stage in developing them. Aquinas heightened our awareness not only of the potential power of reasoning but also of the need for reasoning to be systematically cultivated and "cross-examined. In the Renaissance 15th and 16th Centuries , a flood of scholars in Europe began to think critically about religion, art, society, human nature, law, and freedom. They proceeded with the assumption that most of the domains of human life were in need of searching analysis and critique. Among these scholars were Colet, Erasmus, and Moore in England. They followed up on the insight of the ancients. Francis Bacon, in England, was explicitly concerned with the way we misuse our minds in seeking knowledge. He recognized explicitly that the mind cannot safely be left to its natural tendencies. In his book The Advancement of Learning, he argued for the importance of studying the world empirically. He laid the foundation for modern science with his emphasis on the information-gathering processes. He also called attention to the fact that most people, if left to their own devices, develop bad habits of thought which he called "idols" that lead them to believe what is false or misleading. He called attention to "Idols of the tribe" the ways our mind naturally tends to trick itself , "Idols of the market-place" the ways we misuse words , "Idols of the theater" our tendency to become trapped in conventional systems of thought , and "Idols of the schools" the problems in thinking when based on blind rules and poor instruction. His book could be considered one of the earliest texts in critical thinking, for his agenda was very much the traditional agenda of critical thinking. Some fifty years later in France, Descartes wrote what might be called the second text in critical thinking, Rules For the Direction of the Mind. In it, Descartes argued for the need for a special systematic disciplining of the mind to guide it in thinking. He articulated and defended the need in thinking for clarity and precision. He developed a method of critical thought based on the principle of systematic doubt. He emphasized the need to base thinking on well-thought through foundational assumptions. Every part of thinking, he argued, should be questioned, doubted, and tested. In the same time period, Sir Thomas Moore developed a model of a new social order, Utopia, in which every domain of the present world was subject to critique. His implicit thesis was that established social systems are in need of radical analysis and critique. The critical thinking of these Renaissance and post-Renaissance scholars opened the way for the emergence of science and for the development of democracy, human rights, and freedom for thought. He refused to assume that government functioned as those in power said it did. Rather, he critically analyzed how it did function and laid the foundation for political thinking that exposes both, on the one hand, the real agendas of politicians and, on the other hand, the many contradictions and inconsistencies of the hard, cruel, world of the politics of his day Hobbes and Locke in 16th and 17th Century England displayed the same confidence in the critical mind of the thinker that we find in Machiavelli. Neither accepted the traditional picture of things dominant in the thinking of their day. Neither accepted as necessarily rational that which was considered "normal" in their culture. Both looked to the critical mind to open up new vistas of learning. Hobbes adopted a naturalistic view of the world in which everything was to be explained by evidence and reasoning. Locke defended a common sense analysis of everyday life and thought. He laid the theoretical foundation for critical thinking about basic human rights and the responsibilities of all governments to submit to the reasoned criticism of thoughtful citizens. It was in this spirit of intellectual freedom and critical thought that people such as Robert Boyle in the 17th Century and Sir Isaac Newton in the 17th and 18th Century did their work. In his Sceptical Chymist,

Boyle severely criticized the chemical theory that had preceded him. Newton, in turn, developed a far-reaching framework of thought which roundly criticized the traditionally accepted world view. He extended the critical thought of such minds as Copernicus, Galileo, and Kepler. After Boyle and Newton, it was recognized by those who reflected seriously on the natural world that egocentric views of world must be abandoned in favor of views based entirely on carefully gathered evidence and sound reasoning. Another significant contribution to critical thinking was made by the thinkers of the French Enlightenment: Bayle, Montesquieu, Voltaire, and Diderot. They all began with the premise that the human mind, when disciplined by reason, is better able to figure out the nature of the social and political world. What is more, for these thinkers, reason must turn inward upon itself, in order to determine weaknesses and strengths of thought. They valued disciplined intellectual exchange, in which all views had to be submitted to serious analysis and critique. They believed that all authority must submit in one way or another to the scrutiny of reasonable critical questioning. Eighteenth Century thinkers extended our conception of critical thought even further, developing our sense of the power of critical thought and of its tools. In the same year, applied to the traditional concept of loyalty to the king, it produced the Declaration of Independence. In the 19th Century, critical thought was extended even further into the domain of human social life by Comte and Spencer. Applied to the problems of capitalism, it produced the searching social and economic critique of Karl Marx. Applied to the unconscious mind, it is reflected in the works of Sigmund Freud. Applied to cultures, it led to the establishment of the field of Anthropological studies. Applied to language, it led to the field of Linguistics and to many deep probings of the functions of symbols and language in human life. In the 20th Century, our understanding of the power and nature of critical thinking has emerged in increasingly more explicit formulations. In , William Graham Sumner published a land-breaking study of the foundations of sociology and anthropology, *Folkways*, in which he documented the tendency of the human mind to think sociocentrically and the parallel tendency for schools to serve the uncritical function of social indoctrination: School education, unless it is regulated by the best knowledge and good sense, will produce men and women who are all of one pattern, as if turned in a lathe. An orthodoxy is produced in regard to all the great doctrines of life. It consists of the most worn and commonplace opinions which are common in the masses. The popular opinions always contain broad fallacies, half-truths, and glib generalizations p. At the same time, Sumner recognized the deep need for critical thinking in life and in education: The critical faculty is a product of education and training. It is a mental habit and power. It is a prime condition of human welfare that men and women should be trained in it. It is our only guarantee against delusion, deception, superstition, and misapprehension of ourselves and our earthly circumstances. Education is good just so far as it produces well-developed critical faculty. A teacher of any subject who insists on accuracy and a rational control of all processes and methods, and who holds everything open to unlimited verification and revision, is cultivating that method as a habit in the pupils. Men educated in it cannot be stampeded. They are slow to believe. They can hold things as possible or probable in all degrees, without certainty and without pain. They can wait for evidence and weigh evidence. They can resist appeals to their dearest prejudices. From his work, we have increased our sense of the pragmatic basis of human thought its instrumental nature , and especially its grounding in actual human purposes, goals, and objectives. From the work of Ludwig Wittgenstein we have increased our awareness not only of the importance of concepts in human thought, but also of the need to analyze concepts and assess their power and limitations. From the work of Piaget, we have increased our awareness of the egocentric and sociocentric tendencies of human thought and of the special need to develop critical thought which is able to reason within multiple standpoints, and to be raised to the level of "conscious realization. From the contribution of depth-psychology, we have learned how easily the human mind is self-deceived, how easily it unconsciously constructs illusions and delusions, how easily it rationalizes and stereotypes, projects and scapegoats. To sum up, the tools and resources of the critical thinker have been vastly increased in virtue of the history of critical thought. Hundreds of thinkers have contributed to its development. Each major discipline has made some contribution to critical thought. Yet for most educational purposes, it is the summing up of base-line common denominators for critical thinking that is most important. Let us consider now that summation. The Common Denominators of Critical Thinking Are the Most

Important By-products of the History of Critical Thinking We now recognize that critical thinking, by its very nature, requires, for example, the systematic monitoring of thought; that thinking, to be critical, must not be accepted at face value but must be analyzed and assessed for its clarity, accuracy, relevance, depth, breadth, and logicalness. We now recognize that critical thinking, by its very nature, requires, for example, the recognition that all reasoning occurs within points of view and frames of reference; that all reasoning proceeds from some goals and objectives, has an informational base; that all data when used in reasoning must be interpreted, that interpretation involves concepts; that concepts entail assumptions, and that all basic inferences in thought have implications. We now recognize that each of these dimensions of thinking need to be monitored and that problems of thinking can occur in any of them. The result of the collective contribution of the history of critical thought is that the basic questions of Socrates can now be much more powerfully and focally framed and used. In every domain of human thought, and within every use of reasoning within any domain, it is now possible to question: In other words, questioning that focuses on these fundamentals of thought and reasoning are now baseline in critical thinking. It is beyond question that intellectual errors or mistakes can occur in any of these dimensions, and that students need to be fluent in talking about these structures and standards. Independent of the subject studied, students need to be able to articulate thinking about thinking that reflects basic command of the intellectual dimensions of thought: From what point of view should I approach this problem? Does it make sense for me to assume this? From these data may I infer this? What is implied in this graph? What is the fundamental concept here? Is this consistent with that? What makes this question complex? How could I check the accuracy of these data? If this is so, what else is implied? Is this a credible source of information? With intellectual language such as this in the foreground, students can now be taught at least minimal critical thinking moves within any subject field. What is more, there is no reason in principle that students cannot take the basic tools of critical thought which they learn in one domain of study and extend it with appropriate adjustments to all the other domains and subjects which they study. For example, having questioned the wording of a problem in math, I am more likely to question the wording of a problem in the other subjects I study. As a result of the fact that students can learn these generalizable critical thinking moves, they need not be taught history simply as a body of facts to memorize; they can now be taught history as historical reasoning. Classes can be designed so that students learn to think historically and develop skills and abilities essential to historical thought.

René Descartes was born in La Haye en Touraine (now Descartes, Indre-et-Loire), France, on 31 March His mother, Jeanne Brochard, died soon after giving birth to him, and so he was not expected to survive.

One impulse behind this hybridity seems to be the desire to acknowledge the many modes of thought and experience that contribute to a unique sense of identity. In exploring this alternate form, both writers are suspicious of the claims texts and discourses make. In dismantling genre and discourse distinctions, each of these works recuperates lost and marginalized counter-histories within the consciousness of the narrating self, through the playful destabilizing of binary oppositions. Gunnars , 61â€”2 The value of re-contextualizing quotations exists in the disruption of the logic of existing master narratives: With this line of thinking, when a narrative includes quotations from theory, or cites theory, the author is not necessarily succumbing to the authority of that theorist or that idea, but is in fact deconstructing the theory, destroying the commentary, at the same time as she is interrupting the narrative. The following quotation illustrates how Gunnars destabilizes master narratives within an autobiographical exploration that never coheres into a single authoritative narrative of self: This leads me to the thought of what was, in fact, painful. I could be telling a story, the story of my summer in Germany. It would have a beginning, a middle, and an end. A good story, perhaps. I would be the protagonist, but not the heroine. I would come out rather vanquished. Because something happens to a telling when it becomes a story. Suddenly, there must be opposition. Through dual, hierarchical oppositions. Everywhere where ordering intervenes Otherwise, what happens in a plotted narrative works to the advantage of the male character. Organization by hierarchy makes all conceptual organizations subject to man This subversive strategy also gives the reader the opportunity for a creative engagement with the text s. Also present are narratives that are meditations on recurrent themes, often historical in nature, and thematically pertinent to the immediate experience of the narrator. The fragments can be as short as single sentences, two- and three- line poetic fragments, or short paragraphs and the breaks demand that the reader weave back and forth between elements, building associative links between related fragments. Gunnars makes the shifting between the narrative elements that directly refer to her authorial persona and the non-character-driven material of the philosophical fragments the structural norm. Because her persona is usually prominent as a unifying presence within the disjunctive landscape of these texts, the reader is also challenged to close the imaginative distance between the life-story and the more abstract fragments. Do we, too, enter into the interplay of text and self? Autobiography and criticism merge in her statement: In their desire to conceive of how a world without these constraints might appear, each imagines at some point a world without men. The decision to create liminal genre-blurring narratives maps the possibilities of other identities through unstable narratives that extend into a community of readers and future writers. Written in short narrative sequences that are broken into fragments, van Herk intersperses material from her own life within short meditations on these cities, past and present. Instead, the reader is included in the text and becomes a potentially divisive presence, called upon to imagine herself or himself as an actor in the episodes recounted. Choosing to read Anna Karenina on the remote island is a politically recuperative act, where her depiction of Ellesmere Island as an alternative geography subverts assumptions that Europe is the centre to an Arctic periphery. The ability to read for pleasure and for critical engagement makes the act of reading the most dangerous, subversive act a woman can engage in, then and now. Viewing her as an actor and not as a passive lover, van Herk writes: Her attention to the 72 S. Here, she discovers the counter-hegemonic space that allows her to rewrite a canonical epic of nineteenth-century realism. On this island where she reads and writes she can identify the malignant presence of Tolstoy in his text. The gap in the construction. It is so dark in the cracked juncture of my sentence. It is a black hole. Alternatively, identifying the second-person narrator with Aritha van Herk immerses the reader in the virtual experience 74 S. In each of these variables, the foundational tenets of history and autobiography as authoritative, stable discourses collapse. Every individual thus has a unique response, arising from his or her life-story, and each existent exists within a community of unique existents. These two positions are inseparable, indistinguishable, and yet dual. She [the self] coincides rather with the

uncontrollable narrative impulse of memory that produces the text, and is captured in the very text itself [. But the familiar sense of the narratable self is not a result of the text itself, and neither does it lie in the construction of the story. Further, this sense of self continuously in process does not necessarily contradict critical theorizing of performativity Butler ; Smith Existing simultaneously with the deconstructive strategies that interrogate and reveal instabilities, ambiguities, and contradictions within a given text, the oppositions that maintain boundaries and distinctions also collapse. If reading is conventionally thought of as an immersive act, as we enter into another realm, the experience here also reveals its opposite, that the self is also altered and extended through an engagement with literary and critical works by other authors. Her research areas include narrative and adaptation in new media, the construction of self and place in digital environments blogs and virtual worlds , and new directions in contemporary Canadian literature. The death of the author. In Image, music, text, translated by, S. The laugh of the medusa. In Critical theory since , ed. University Presses of Florida. University of Minnesota Press. A delezian analysis of Aritha van Herk. The substance of forgetting. Red Deer College Press. Stranger at the door: Writers and the act of writing. Wilfred Laurier University Press. Oscillation between power and denial. In New French feminisms: University of Massachusetts Press. Continental Philosophy Review Possible worlds in literary theory. Subjectivity, identity and the body: Performativity, autobiographical practice, resistance. In Women, autobiography, theory: University of Wisconsin Press. Places far from Ellesmere: Interview with Aritha van Herk, with Nicole Dargent et al.

Chapter 5 : Dualism (Stanford Encyclopedia of Philosophy)

The Cartesian who overpowers nature has to mortify part of himself or herself—feelings, passions, the body, and everything else that is part of the physical world. There is a certain coldness in geometrical forms and the life of the Cartesian mind, and therefore a subliminal longing for the nature that has become lost.

Rene Descartes Descartes: The Solitary Self Individualism is one of the hallmarks of Western philosophy and civilization. No other intellectual tradition has been as intensively some would say: Individualism is as defining a characteristic of our present civilization as capitalism, materialism, technology, and global expansion. And no Greek philosopher in Antiquity ever thought of the individual as anything else than a social being, a zoon politicon. This became different at the beginning of the Modern Age. Modern philosophy developed a concept of the individual that was far more solitary than that created by Socrates and Antiquity. The modern definition of the self disregards any reference to society or social context and fastens exclusively on what the self is in itself. Because of this approach to understanding and defining the self, modern philosophy ended up with a conception of an individual that was besieged by the problem of solipsism and the question of how a person could possibly relate to the outside world. The philosopher who first formulated the idea of this solitary self was Rene Descartes The Modern Age came into being around CE--give or take a hundred years. The thousand years or so before that time are called the Middle Ages, and they are sometimes characterized as the "Dark Age. Four major events and developments stand out: The Renaissance, the Reformation, the change from agrarian Feudalism to urban Capitalism, and the discovery and conquest of overseas territories and peoples. The word "Renaissance" means "re-birth," and the term refers to the rediscovery and re-activation of much of the sophisticated pagan culture of Antiquity that had been suppressed by the Catholicism of the Middle Ages. It was characterized foremost by a new worldliness of life. The naked human body became a prominent subject of Renaissance painting and sculpture. Painters and art patrons did not think of it as sinful and in need of being covered up, but as something to be respected and cherished. Science, too, turned to the physical world with renewed energy and curiosity. The new worldliness became prevalent in other areas of life as well. Political power throughout the Middle Ages was sanctioned by the Catholic church, and in theory at least was tempered by carefully delineated moral obligations toward God and citizens. During the Renaissance power tended to become a purely worldly affair, and a desirable goal in itself. In his notorious book *The Prince*, written in , Machiavelli advocated openly that in the art of ruling efficiency has to be more important than ethics, and that rulers often have to lie, cheat, and take all sorts of measures that are cruel and ruthless. Furious struggles for power were the order of the day. The papacy itself became the object of pure power politics. Kings and warlords from all European countries conquered and lost cities and territories at a rate that would have been perceived as lawless and chaotic in earlier times. Hamlet expressed some of the dismay of the contemporaries of such violent Renaissance men when he exclaimed: It unleashed a storm of Protestant rebellions all over northern Europe, and eventually lead to the break-up of Western Christianity into several independent churches. Europe became divided into Catholic and Protestant regions. More than a hundred years of fierce and brutal "Wars of Religion" ensued in which Catholic and Protestant monarchs tried to gain as much territory as possible, and to install their own faith as the official religion of their domains. By reading scriptures himself or herself, every Christian had direct access to the truth; the authority of the Pope and his councils became irrelevant for how the Word of God was to be interpreted by the believer. Luther and other Protestant leaders initiated the translation of the Bible from the traditional Latin into native languages, languages that ordinary people could understand. Intensive study of scriptures, unsupervised by priests, became a widespread practice. The Catholic church found this individualistic circumvention of clerical authorities so threatening at the time, that it targeted Bible translators for special persecution. Tyndal, the first translator of the New Testament into English, was captured by the Inquisition while studying on the Continent, and eventually executed by garroting. Catholicism was a culture of community and hierarchy. The individual had its predetermined place in both; individual freedom was limited by social status and spiritual directives. Catholicism was thus a culture that provided certainty and security to individuals who might

otherwise feel abandoned and lost. Protestantism furthered a culture of individualistic self-reliance. By setting the individual free in his or her conscience, by defying the spiritual authority of the church and its worldly extensions, Protestantism became one of the origins of modern individualism in general. Renaissance and Reformation as cultural movements did not come out of nowhere, but unfolded in the context of the decaying social and economic order of the Middle Ages. The most tangible development that marked the end of the medieval period was the accelerating change from agrarian Feudalism to urban Capitalism. Feudalism had been a relatively stable system for hundreds of years because agricultural production was very primitive--producing few surpluses, and thus keeping trade and urban developments at a low level. Serfs were forbidden by law to leave the land on which they were born, and the few individuals who left anyway had few places to go to. Most of the towns and cities of the former Roman Empire had severely decayed or vanished altogether; in some places cattle grazed among the sometimes still visible ruins of Antiquity. The once extensive road system had fallen into complete disrepair. With the exception of a few thriving cities like Paris or Cologne, an urban civilization no longer existed in the Middle Ages. New trades developed in these places, and production intensified. Beginning with the Renaissance, small and primitive shops were increasingly replaced by bigger and efficiently structured manufacturing establishments. Ever larger amounts of money were invested in such enterprises; banking houses were established to facilitate investment and trade. The new interest in the sciences produced many technological innovations. The cities as a whole became very productive and grew rich through their trade and other commercial activities. In time their accumulated money translated into political power. The landed aristocracy began to lose influence and prestige; a new social class began to make its weight felt: Capitalism emerged as the dominant economic system of the future. Capitalism is an economic system in which individual initiative and personal wealth can play a significant role. Enormous personal fortunes were made around through money lending and investments. Bankers often could dictate terms to eminent aristocrats and rulers. Besides Protestantism, Capitalism became thus an important breeding ground for the kind of individualism that was to characterize the culture of the West. The fourth development that marks the end of the European Middle Ages was the discovery and conquest of overseas territories. New technologies, such as compasses, improved ways of rigging sails, telescopes, and more reliable calculations in astronomy, made it possible for European seafarers to cross much larger bodies of water than before. The introduction of firearms and other weapons made it possible for small numbers of Europeans to defeat and subjugate large numbers of natives who might not welcome the foreign adventurers on their lands. The ambitious and ruthless power seekers that Shakespeare portrayed so well in his tragedies found their real-life counterparts in such adventurous conquerors as Cortez, Alvarado, or Pizarro. Settlement of conquered overseas territories followed quickly. Wherever possible, old native cultures were destroyed, Christianity introduced by force or persuasion, available treasures plundered, plantations organized, slaves imported, and the regular transfer of the new wealth to Europe established on a regular basis. While Europeans became fully aware for the first time of how small their old world had been in comparison to the whole globe, they aggressively exported their own culture and thereby ensured that in time their ways would become the ways of the world. The result of all these social and cultural changes was a widespread feeling of uncertainty among many Europeans. The old stable world of the Middle Ages was gone, and a new permanent order had not yet been established. The new interest in scientific research produced the basis of what was to become the sound knowledge of the future, but confidence in that knowledge was as yet far from general. Philosophical skeptics like Michel de Montaigne, whose influential *Essays* were published in 1580, emphasized how uncertain all the old truths had turned out to be. His conclusion for the present, however, was not that the emergence of the new sciences was a new dawn of real knowledge. How long will it take until the new truths will have to be discarded as well? From the Pre-Socratic philosopher Heraclitus Montaigne took the notion that everything is in constant flux. From such post-classical skeptic philosophers as Pyrrho and Sextus Empiricus he accepted the notion that things that are in flux cannot really be known, and that the human senses, constantly changing themselves, could not possibly reveal to us the true nature of things. As so many other scholars of the time, Montaigne lacked any kind of optimism with regard to science and reason. For him a profound uncertainty was the basic human condition. Hamlet is a student in Wittenberg, the center of rebellious Lutheran

Protestantism. To his disgust he finds not only that his uncle has taken possession of the throne, but also that his mother has married the usurper in undue haste. The ghost of his father tells Hamlet that he was murdered by his uncle, and he urges the prince to avenge his death. In the old days Hamlet would not have had much reason to delay the revenge. Laertes, for example, the brother of his sweetheart Ophelia and a student at the very traditionalist University of Paris has no compunction to attack Hamlet when he is told that Hamlet killed his father Polonius. And Fortinbras, the Prince of Norway, an impetuous and unthinking warrior of the traditional kind, does not hesitate to wage a bloody war of conquest for a piece of territory that is too small to bury all the dead that that war would produce--because that is what princes are traditionally expected to do. Both Laertes and Fortinbras are young men who feel no hesitation with regard to their duties, as they identify with their traditional social role and the conventional moral order of their world. But Hamlet is not a traditional prince; he is a modern man, an individual full of doubt as to what is true, and what would be the right way to act. For him the old role models are not beyond question anymore, and what is real in the world, and what merely an illusion, cannot be known with certainty. Hamlet finds himself to be the Prince of Denmark, to be sure, but that is not so much a sound identity anymore, as a mere role. He knows what people expect from him, and from his upbringing he knows what attitude he ought to take, but in his own eyes that attitude is just a mask, a guise, not something he could really be. Thus he lets time go by--partly loathing himself for his vacillation between presumed duties and doubts, but without coming to any satisfactory resolution. Action is finally forced upon him, but too late--and too arbitrarily to do anyone any good. Politics as usual will continue for a while after his death, but for him there is not much promise or meaning in that.

The Doubt to End All Doubt It was the passion and declared goal of Descartes to put an end to the pervasive skepticism and uncertainty of the age. As he himself was troubled rather gravely by all sorts of doubts, he could embark on the removal of the general skepticism as a personal quest. He tackled the problem not by producing defenses for all the doubtful opinions that were under attack, but, on the contrary, by intensifying the general doubt to its ultimate extreme. Like a dentist who first cleans away every trace of decay from a diseased tooth before filling in new material, Descartes resolved to doubt absolutely everything that could possibly be doubted--in the hope of thereby finding something that was beyond doubt. Whatever he would find would be the basis for a new body of solid knowledge. His plan, in other words, was to doubt his way to a new certainty. Descartes received a first-rate education at the famous Jesuit school of La Fleche in France, before leaving his native country to engage in extensive traveling and gentlemen-soldiering in Holland and Germany. After some years he returned to Paris for a short time, but thereafter moved to Holland to live the quiet life of a scholar. Taking advantage of the possibilities of the emerging Capitalist economy, he sold his inherited feudal rights and titles and invested the proceeds in stocks; this allowed him to live comfortably on dividends and interest.

Chapter 6 : René Descartes - Wikipedia

This paper explores the extent to which alterations to the contingency relation said to exist by Descartes, between mind and body (or physical system), result in experiences of disembodiment that can legitimately be described as Cartesian.

The town of La Haye, which lies 47 kilometers south of Tours, has subsequently been renamed Descartes. When Descartes was thirteen and one-half months old, his mother, Jeanne Brochard, died in childbirth. But he did not neglect his birth place in La Haye: He followed the usual course of studies, which included five or six years of grammar school, including Latin and Greek grammar, classical poets, and Cicero, followed by three years of philosophy curriculum. By rule, the Jesuit philosophy curriculum followed Aristotle; it was divided into the then-standard topics of logic, morals, physics, and metaphysics. The Jesuits also included mathematics in the final three years of study. Aristotle himself frequently discussed the positions of his ancient predecessors. Within this framework, and taking into account the reading of Cicero, Descartes would have been exposed in school to the doctrines of the ancient atomists, Plato, and the Stoics, and he would have heard of the skeptics. Hence, although scholastic Aristotelian philosophy was dominant in his school years, it was not the only type of philosophy that he knew. His family wanted Descartes to be a lawyer, like his father and many other relatives. To this end, he went to Poitiers to study law, obtaining a degree in 1616. But he never practiced law or entered into the governmental service such practice would make possible Rodis-Lewis, 181. Instead, he became a gentleman soldier, moving in to Breda, to support the Protestant Prince Maurice against the Catholic parts of the Netherlands which parts later formed Belgium, which were controlled by Spain—a Catholic land, like France, but at this point an enemy. Beeckman set various problems for Descartes, including questions about falling bodies, hydrostatics, and mathematical problems. Since antiquity, mathematics had been applied to various physical subject matters, in optics, astronomy, mechanics focusing on the lever, and hydrostatics. Beeckman and Descartes brought to this work a commitment to atoms as the basic constituents of matter; as had ancient atomists, they attributed not only size, shape, and motion but also weight to those atoms. At this time, Descartes discovered and conveyed to Beeckman the fundamental insight that makes analytic geometry possible: Descartes himself did not foresee replacing geometrical constructions with algebraic formulas; rather, he viewed geometry as the basic mathematical science and he considered his algebraic techniques to provide a powerful alternative to actual compass-and-ruler constructions when the latter became too intricate. Descartes attended the coronation and was returning to the army when winter caught him in the small town of Ulm or perhaps Neuburg, not far from Munich. On the night of November 10, 1619, Descartes had three dreams that seemed to provide him with a mission in life. The dreams themselves are interesting and complex see Sebba. Descartes took from them the message that he should set out to reform all knowledge. He decided to begin with philosophy, since the principles of the other sciences must be derived from it. In 1629, he recalled 3: Francisco Toledo 1596, Antonio Rubio 1618, and the Coimbra commentators active ca. 1600. And in 1629 he was able to rattle off the names of recent innovators in philosophy. 1: He was in France part of the time, visiting Poitou to sell some inherited properties in 1619 and visiting Paris. He went to Italy 1619. Upon his return he lived in Paris, where he was in touch with mathematicians and natural philosophers in the circle of his long-time friend and correspondent Marin Mersenne. While in Paris, he worked on some mathematical problems and derived the sine law of refraction, which facilitated his work on formulating mathematically the shapes of lenses later published in the Dioptrics. His major philosophical effort during these years was on the Rules, a work to convey his new method. In the Rules, he sought to generalize the methods of mathematics so as to provide a route to clear knowledge of everything that human beings can know. His methodological advice included a suggestion that is familiar to every student of elementary geometry: But he also had advice for the ambitious seeker of truth, concerning where to start and how to work up to greater things. Thus, Rule 10 reads: These faculties allow the seeker of knowledge to combine simple truths in order to solve more complex problems, such as the solution to problems in optics. By the end of 1629, Descartes had abandoned work on the Rules, having completed about half of the projected treatise. In that year he moved to the Dutch Netherlands, and after that he returned to France infrequently, prior to moving to

Sweden in In Summer, , an impressive set of parhelia, or false suns, were observed near Rome. When Descartes heard of them, he set out to find an explanation. He ultimately hypothesized that a large, solid ice-ring in the sky acts as a lens to form multiple images of the sun [6: This work interrupted his investigations on another topic, which had engaged him for his first nine months in the Netherlands 1: The metaphysical objects of investigation included the existence and nature of God and the soul 1: Subsequently, Descartes mentioned a little metaphysical treatise in Latinâ€”presumably an early version of the *Meditations*â€”that he wrote upon first coming to the Netherlands 1: While working on the parhelia, Descartes conceived the idea for a very ambitious treatise. This work eventually became *The World*, which was to have had three parts: Only the first two survive and perhaps only they were ever written , as the *Treatise on Light* and *Treatise on Man*. In these works, which Descartes decided to suppress upon learning of the condemnation of Galileo 1: These works contained a description of the visible universe as a single physical system in which all its operations, from the formation of planets and the transmission of light from the sun, to the physiological processes of human and nonhuman animal bodies, can be explained through the mechanism of matter arranged into shapes and structures and moving according to three laws of motion. In fact, his explanations in the *World* and the subsequent *Principles* made little use of the three laws of motion in other than a qualitative manner. After suppressing his *World*, Descartes decided to put forward, anonymously, a limited sample of his new philosophy, in the *Discourse* with its attached essays. It offered some initial results of his metaphysical investigations, including mindâ€”body dualism. It did not, however, engage in the deep skepticism of the later *Meditations*, nor did it claim to establish, metaphysically, that the essence of matter is extension. This last conclusion was presented merely as a hypothesis whose fruitfulness could be tested and proven by way of its results, as contained in the attached essays on *Dioptrics* and *Meteorology*. In his *Meteorology*, Descartes described his general hypothesis about the nature of matter, before continuing on to provide accounts of vapors, salt, winds, clouds, snow, rain, hail, lightning, the rainbow, coronas, and parhelia. He presented a corpuscularian basis for his physics, which denied the atoms-and-void theory of ancient atomism and affirmed that all bodies are composed from one type of matter, which is infinitely divisible 6: In the *World*, he had presented his non-atomistic corpuscularism, but without denying void space outright and without affirming infinite divisibility Indeed, Descartes claimed that he could explain these qualities themselves through matter in motion The four Aristotelian elements, earth, air, fire, and water, had substantial forms that combined the basic qualities of hot, cold, wet, and dry: For earth, that activity is to approach the center to the universe; water has the same tendency, but not as strongly. For this reason, Aristotelians explained, the planet earth has formed at the center, with water on its surface. This form then organizes that matter into the shape of a rabbit, including organizing and directing the activity of its various organs and physiological processes. Although in the *World* and *Meteorology* Descartes avoided outright denial of substantial forms and real qualities, it is clear that he intended to deny them 1: Two considerations help explain his tentative language: In , Descartes fathered a daughter named Francine. This was the *Meditations*, and presumably he was revising or recasting the Latin treatise from In the end, he and Mersenne collected seven sets of objections to the *Meditations*, which Descartes published with the work, along with his replies , Some objections were from unnamed theologians, passed on by Mersenne; one set came from the Dutch priest Johannes Caterus; one set was from the Jesuit philosopher Pierre Bourdin; others were from Mersenne himself, from the philosophers Pierre Gassendi and Thomas Hobbes, and from the Catholic philosopher-theologian Antoine Arnauld. As previously mentioned, Descartes considered the *Meditations* to contain the principles of his physics. Descartes and his followers included topics concerning the nature of the mind and mindâ€”body interaction within physics or natural philosophy, on which, see Hatfield Once Descartes had presented his metaphysics, he felt free to proceed with the publication of his entire physics. However, he needed first to teach it to speak Latin 3: He hatched a scheme to publish a Latin version of his physics the *Principles* together with a scholastic Aristotelian work on physics, so that the comparative advantages would be manifest. For this purpose, he chose the *Summa philosophiae* of Eustace of St. That part of his plan never came to fruition. His intent remained the same: Ultimately, his physics was taught in the Netherlands, France, England, and parts of Germany. The *Principles* appeared in Latin in , with a French translation following in He also presented an

image of the relations among the various parts of philosophy, in the form of a tree: Thus the whole of philosophy is like a tree. The roots are metaphysics, the trunk is physics, and the branches emerging from the trunk are all the other sciences, which may be reduced to three principal ones, namely medicine, mechanics and morals. His intent had been also to explain in depth the origins of plants and animals, human physiology, mind-body union and interaction, and the function of the senses. In the end, he had to abandon the discussion of plants and animals Princ. Nonetheless, he was drawn into theological controversy with Calvinist theologians in the Netherlands. Already by , Gisbert Voetius , a theologian at Utrecht, expressed his displeasure over this to Mersenne 3: Controversy brewed, at first between Regius and Voetius, with Descartes advising the former. The controversy simmered through the mids. Descartes replied with his Comments on a Certain Broadsheet In the mids, Descartes continued work on his physiological system, which he had pursued throughout the s. He allowed his Treatise on Man to be copied 4: During this period he corresponded with Princess Elisabeth, at first on topics in metaphysics stemming from her reading of the Meditations and then on the passions and emotions. Eventually, he wrote the Passions of the Soul , which gave the most extensive account of his behavioral physiology to be published in his lifetime and which contained a comprehensive and original theory of the passions and emotions. In , Descartes accepted the invitation of Queen Christina of Sweden to join her court. On the day he delivered them to her, he became ill. He died on 11 February Readers of the philosophical works of Immanuel Kant are aware of the basic distinction between his critical and precritical periods. Readers of the works of G. Leibniz are also aware of his philosophical development, although in his case there is less agreement on how to place his writings into a developmental scheme. In effect, he adopted a hypothetico-deductive scheme of confirmation, but with this difference:

The distinctions between autobiography/history, self/other, interior/exterior, self/world, and in-/out/stasis are rethought in a representation of consciousness that invites the reader to engage in the construction of alternate and variant histories.

The introduction is surprisingly clear – the importance of Descartes is the stripping back to first principles, the process of doing philosophy being a A pdf can be found online here: Changing its total style, philosophy takes a radical turn: Should not this continuing tendency imply an eternal significance and, for us, a task imposed by history itself, a great task in which we are all summoned to collaborate? What this ground is, and whether or not it is even possible to actually get to such a position, is debatable. In a quasi-Cartesian fashion we intend, as radically beginning philosophers, to carry out meditations with the utmost critical precaution and a readiness for any even the most far-reaching transformation of the old-Cartesian meditations. Seductive aberrations, into which Descartes and later thinkers strayed, will have to be clarified and avoided as we pursue our course. To presuppose logic as a method to get beyond presuppositions is obviously flawed. At first we must not presuppose even its possibility. Which seems to me a bit of a cop-out, but anyway So the scientific method, which wishes to ground itself on evidence, is the same as the Cartesian method, which similarly seeks to ground itself. Or is not always already completely saturated with all sorts of pre-existing crap? There is a line of advance. Just like there should be in philosophy – it is a doing, not a dogma It is plain that I, as someone beginning philosophically, since I am striving toward the presumptive end, genuine science, must neither make nor go on accepting any judgment as scientific that I have not derived from evidence, from "experiences" in which the affairs and affair-complexes in question are present to me as "they themselves". Indeed, even then I must at all times reflect on the pertinent evidence ; I must examine its "range" and make evident to myself how far that evidence, how far its "perfection", the actual giving of the affairs themselves, extends. Where this is still wanting, I must not claim any final validity, but must account my judgment as, at best, a possible intermediate stage on the way to final validity. Just had to google "apodicticity". If we can know that certain evidence is not grounded, the possibility of evidence that would be grounded would be recognizable. So, seeing it is not X still gives us hints as to X. The existence of the world - " The being of the world, by reason of the evidence of natural experience, must no longer be for us an obvious matter of fact; it too must be for us, henceforth, only an acceptance-phenomenon. Even if you decided not to believe in anything you experienced, that "not believing" would still be something. There is an Ego grasping all this "immediately". So if you cut out everything, you end up at "pure living", "pure experiencing" 22 " By my living, by my experiencing, thinking, valuing, and acting, I can enter no world other than the one that gets its sense and acceptance or status [Sinn und Geltung]in and from me, myself. But, yes, the issue is - can the experiencing of the transcendental self be apodictic? What about the past, memory as components of that self? Can they not be doubted? But we can still separate the "lived present", the experiencing of something now, being such a ground. But how far does this extend? Clearly this is an uncertain ground, and indeterminate ground. So the "Objective" world is irrelevant, and not something we should be attempting to inquire into or ascertain. The "reduced", or radically questioned, "Ego" is not part of the World. So therefore our subject should always simply be what the experiencing of the me doing the philosophical investigation is Now things are stepping up a gear. We have to stay where we are – in the thinking of being. Transcendental experience [grooovv maaan]. So we need to explore this realm, but it is, of course, mine and mine only, there is no assumption of universal applicability. And also we must note the difference between simply perceiving something, and also being aware of the fact of our perceiving and also remembering that we have bracketed off the existence of the thing being perceived. But do we not immediately get into a problem of infinite regress here Husserl? Will the Ego not keep splitting forever? Noematic the perceived intentional object –v- Noetic the processes of perception. These multiplicities include the Noematic and the noetic. We can direct our intentionality at the object in different ways to emphasise different aspects of it, but these are never isolated from each other, or separated. These structures can be described, or investigated. This includes, for example, the fact that when I observe the computer in front of me, the object includes all sorts of other stuff which is

"invisible" - not just the innards of the computer but, i guess, also all its Computer-ness. This something, the particular "intentional object qua intentional" in any consciousness, is there [bewusst] as an identical unity belonging to noetically-noematically changing modes of consciousness, whether intuitive or non-intuitive. And this synthesis that is the internal object appearing in my consciousness is something that escapes the bracketing off we have done. The horizon of possibility around our interpretation of an object is delineated, is not infinite. There are only a certain number of ways we can experience or think through an object, and these are in place from the start. So, even though the modes of consciousness of the object change, they do so within a limit. And we can investigate this limit. This issue is therefore not the investigation of the elements of something, but of potentialities. Any "Objective" object, any object whatever even an immanent one, points to a structure, within the transcendental ego, that is governed by a rule. And our task as phenomenological investigators is to uncover them. Getting a concept pregnant is never easy. We are still directed towards a "thing". Synthesis gives us our reality. What makes up, what is the structure, of the actual or possible consciousness of Objects? This is true of the transcendental ego and, correspondingly, of the psychologically pure ego; it is true, moreover, with respect to any sense of the word ego. Since the monadically concrete ego includes also the whole of actual and potential conscious life, it is clear that the problem of explicating this monadic ego phenomenologically the problem of his constitution for himself must include all constitutional problems without exception. Consequently the phenomenology of this self-constitution coincides with phenomenology as a whole. It is prior to all "concepts", in the sense of verbal significations; indeed, as pure concepts, these must be made to fit the eidos. That transcendental phenomenology will allow us to get over even this. Active "v"- passive genesis in respect of the Ego "i". The "ready-made" object that confronts us in life as an existent mere physical thing when we disregard all the "spiritual" or "cultural" characteristics that make it knowable as, for example, a hammer, a table, an aesthetic creation is given, with the originality of the "it itself", in the synthesis of a passive experience. As such a thing, it is given beforehand to "spiritual" activities, which begin with active grasping. So there is a history, we can point backward to the giving of the beforehand of an Object. Without this history there could be no Objects. Owing to these, each and every passive constitution is to be made understandable both the constitution of subjective processes, as objects in immanent time, and the constitution of all real natural objects belonging to the Objective spatio-temporal world. Association is a fundamental concept belonging to transcendental phenomenology.

Chapter 8 : Descartes: The Solitary Self

The term Cartesian linguistics was coined with the publication of Cartesian Linguistics: A Chapter in the History of Rationalist Thought (), a book on linguistics by Noam Chomsky. The word "Cartesian" is the adjective pertaining to René Descartes, a prominent 17th-century philosopher. However, rather than confine himself to the works of Descartes, Chomsky surveys other authors interested in rationalist thought.

Since the Church had no interest in lifeless, inert, unthinking, soulless matter, scientists should be completely free to pursue their research in this area. We can trace their progeny back to the Greeks. The point is that Descartes defined mind and matter in specific ways and in opposition to each other. I mention that Descartes not only defined matter in a certain way, but by implication he also defined science, because science is the discipline that studies matter. In doing so, this worldview sets an implicit agenda. Science is not defined as a discipline that is merely empirical or one that always submits to falsifiability, although we sometimes use the term this neutral way. Built into the term, however, is its historical use as a kind of default position, or a hidden set of assumptions--that science is a discipline that studies matter--public objects which are assumed to be unthinking, to be mechanical, and to act in a deterministic fashion. And people implicitly hold this view as a default position even if contemporary physics does not subscribe to all of these characteristics, because this view goes to the heart of how science has been understood for centuries. There is no doubt that this approach to the world has yielded enormous knowledge about the world. The system was created in this way to solve an important 17th century problem, which it did in a magnificent fashion. So long as science stuck to researching falling bodies, this split worked excellently. It is only when one wants to engage in psychology or any human science that we begin to have trouble. The self is defined by mind, which in turn is defined by privacy, freedom, purposiveness, and thinking. But these are precisely the sorts of things that science is not equipped to deal with; in fact, these are the sorts of things that it cannot deal with, given the implicit definition of science. Minds are simply out of bounds for science, at least the kind of minds that were invented in the 17th century and which folk psychology assumes. And hence we have the contemporary debate in the philosophy of mind about what to do with folk psychology. Psychology, itself, as well as anthropology and other disciplines in the social sciences have had difficulty since their inception in trying to define how they should investigate their subject matter. One of the reasons why methodology in the social sciences is so difficult is precisely because social scientists do not know whether to study the mind or persons using the methodology of mind defined by Descartes, or whether to study people as material objects using the methodology of matter as defined by Descartes. These methodological wars continue in the social sciences, and the introduction of cognitive science does not solve the problem, it seems to me, because it also arises within the Cartesian worldview, although this discipline comes across as a far less radical scientific approach. It is no wonder that parapsychology has been caught up in the same culture wars; indeed, it is a product of it. Parapsychology is an ingenious attempt to employ the methodological tools of science--using experimental controls, employing objective methods, etc. It views the mind as being free and purposeful and efficacious in contradistinction to the scientific approach to the person, which is necessarily based on the Cartesian definition of matter. Since science assumes the folk psychological view of mind out of existence, it must portray the person in material terms, and we have seen the various attempts at materialism, such as the identity theory, central state materialism, eliminative materialism, and various forms of functionalism, but I do not intend to consider the adequacy of these attempts in this paper. The reason I have offered this rather long rehearsal of the historical background is twofold; first, it provides a context for examining how and why Beloff argues for dualism; and second, it shows the historical situatedness of the contemporary debate. Physicalism did not arise ex nihilo, nor can it be viewed as a simple empirical statement, but it is an integral part of the Cartesian worldview, defined in juxtaposition to a particular view of mind. The Cartesian formulation yields two kinds of solutions, either some version of dualism, or some version of monism. Common sense, with its folk psychological assumptions, assumes some kind of dualism, while science sides with some kind of monism. Beloff has given remarkably consistent argument for dualism over his career, and although I will not be able to deal with the

nuances here, I will consider some of his major points. The argument is fairly straightforward, in four steps: Common sense holds a radical dualist or interactionist stance: Beloff concedes in several places that it is possible to examine the parapsychological evidence and reject it. He argues, however, that it is sufficiently strong that it cannot be dismissed out of hand, and he believes that it is substantial enough at least to strongly suggest the existence of psi phenomena. However, psi is a mental phenomenon and thus it is incompatible with physicalism. Since I want to devote some space to his arguments against physicalism, let me turn immediately to his fourth point. Therefore, dualism should be accepted. The first point is that he takes pains to show that parapsychological phenomena act like mental phenomena in the traditional, Cartesian sense. Keep in mind the characteristics Descartes used to describe the mental. First, psi phenomena are non-spatial. Numerous experiments in parapsychology have attempted to show that psi phenomena are not limited by the spatial parameters that physical phenomena are. Second, Beloff characterizes psi phenomena as teleological, or purposive. Teleology has been rejected in science in favor of mechanical causation; being teleological, psi phenomena are mental. At another point Beloff says: Finally, Beloff describes the mind as necessarily tied to being the seat of value and being involved in morality. To be fair to Beloff, I need to note that he offers a few caveats. For instance, he agrees with Gardner Murphy that psi phenomena are transpersonal. Plus, he further suggests that parapsychology has more affinity with magic than science. I will return to these caveats a bit later. In addition to these arguments for dualism and against physicalism, Beloff has other arguments against physicalism, or that mind cannot be reduced to the physical, as well as arguments against parapsychological phenomena being able to be explained by physical theories. The arguments here are too numerous to discuss, but let me outline a few of his arguments. Beloff has four arguments against physicalism: Although Beloff does not want to define mind in terms of consciousness, nevertheless it is an important experiential fact that we are conscious, and there is an irreducible subjectivity about this experience. Consciousness has a referential quality, something which the 19th century psychologist Franz Brentano pointed out. Conscious acts are always about something; we think about a vacation, or we think about writing a paper, while we cannot say that a rock or even a computer is about anything. It simply is what it is. Conscious thoughts express meaning. There is a very great difference between the use of symbols consciously, for instance in humans speaking a language, and a computer manipulating its symbols. While we can think the human is acting meaningfully, we do not think that computers are. I take it that Beloff is making the same point that Searle was illustrating with his Chinese box example. None of these arguments are peculiar to Beloff; they have all been found in the literature of philosophy of mind, but he states them with his usual clarity and forcefulness in supporting the kind of mind that is implicit in folk psychology. Nor does Beloff believe that psi phenomena can be reduced to or explained by the physical. And, yet, although he seems to dismiss physicalism a priori, he recognizes that even parapsychologists have tried to explain psi phenomena by physicalist theories, and so he takes pains to argue against the adequacy of two theories: Beloff has two objections to observation theories. Beloff places his dualism, therefore, squarely within a view of mind supported by folk psychology. While some specifics of Cartesian dualism are inadequate, nevertheless he is squarely in this Western tradition. Although it is understandable that Beloff would adopt this Western tradition, it may be the tradition itself that needs to be questioned. Let me lay my cards on the table. I agree that we ought to reject physicalism, and the arguments he gives are classic ones and, on the whole, sound. Given a Cartesian worldview, in which mind and matter have been defined in the way they have, the physicalist attempt to make mind an impotent byproduct of physical processes, or even to reduce mind to matter, is inadequate. However, I believe that what should be questioned is not so much the approach of physicalism, as much as the entire Cartesian worldview, which arose at a particular time in history, in a particular context, attempting to solve a particular 17th century problem; while the recognition of this historical situatedness does not lead to an a priori rejection of the worldview, I believe that three centuries of philosophical befuddlement trying to use it presents a strong case against the adequacy of the Cartesian worldview, with its specific understanding of mind and of matter. It is hard for me to believe that Westerners in the Modern world are the only people with insight to have finally grasped reality as it is. We are dealing with alternative models, and Western folk psychology is only one of them. By the way, I am not proposing a

cultural relativism here. Cultural views are models through which people live, and a plethora of them provide rich, meaningful lives. Folk psychology represents only one of these models, and not one that nature demands that we take up. There is an intuitive plausibility about it that confronts any attempt to deny it. Some philosophers go so far as to assert that we are acquainted with this mind directly, which assures its existence. We are introspectively acquainted with the contents of our own beliefs and desires. The implication is that we have direct, unmediated knowledge of this mind, and to deny it is really an impossibility. This view would imply that Westerners have always known this mind, and would have always propounded what we know as folk psychology, and all cultures would have come to the same conclusion as to the nature of mind. Both of these conclusions, of course, are false, and I will say a few words about them shortly. Alternatively, one could rely less on introspection in support of folk psychology and argue more that this concept of psychology is native to us. For instance, Jerry Fodor has said: And here the situation is absolutely clear. One is tempted to transcendental arguments: What Kant said to Hume about physical objects holds, *mutatis mutandis*, for the propositional attitudes: One may hold this position not only because one is a nativist, but simply based on the fact that we do not know any other conceptual models. It is awfully difficult to know how else we could talk about the mind if we have been given only limited examples, and I am very sympathetic to this problem. And this is one reason why it is important for us to examine alternative conceptions, not imagined ones, but cognitive schemes which are in place in cultures and seem to work quite as well as ours does. The way one overcomes myopia in experience is by getting a better look, so we need to take a good look at other cultures, who have radically different psychologies. So, I propose now to examine some of the ways in which nonEuroAmerican views of mind are different from folk psychology for two reasons: Naturally, the fact that folk psychology seems so commonsensical to us makes us want to be universalists, thinking that everyone really thinks like we do. We think that there is an important core group of universal concepts that are embodied in folk psychology. And we can take variations to be simply anomalous: The differences, therefore, are admitted but denigrated and relegated to the unimportant. However, neither of these approaches, a universalism or a rejection of anomalies, is adequate. Let me say that the differences in the concepts of self and the experience of self, and the attendant psychologies, are real. Wierzbicke has argued, based on linguistics, that certain concepts are universal, but these are more behaviorally related terms, and there are not enough to support our folk psychology. But even if we admit that certain terms are universal, we cannot conclude that we therefore share the same world, or even have the same notions about these words. After all, concepts are embedded in a web of usage and it is hard to disentangle concepts from their context.

Chapter 9 : Cartesian linguistics - Wikipedia

After examining various examples of altered contingency relationsâ€”from case study reports of pathological experiences of disembodiment to research evidence on online relatingâ€”we conclude that cyberspace does not constitute a suitable medium for the realization of the Cartesian self, even in users who intentionally seek to become disembodied.

Humans have or seem to have both physical properties and mental properties. People have or seem to have the sort of properties attributed in the physical sciences. These physical properties include size, weight, shape, colour, motion through space and time, etc. But they also have or seem to have mental properties, which we do not attribute to typical physical objects. These properties involve consciousness including perceptual experience, emotional experience, and much else, intentionality including beliefs, desires, and much else, and they are possessed by a subject or a self. Physical properties are public, in the sense that they are, in principle, equally observable by anyone. Some physical propertiesâ€”like those of an electronâ€”are not directly observable at all, but they are equally available to all, to the same degree, with scientific equipment and techniques. The same is not true of mental properties. I may be able to tell that you are in pain by your behaviour, but only you can feel it directly. Similarly, you just know how something looks to you, and I can only surmise. Conscious mental events are private to the subject, who has a privileged access to them of a kind no-one has to the physical. The mind-body problem concerns the relationship between these two sets of properties. The mind-body problem breaks down into a number of components. Is one class a subclass of the other, so that all mental states are physical, or vice versa? Or are mental states and physical states entirely distinct? Do mental states influence physical states? Different aspects of the mind-body problem arise for different aspects of the mental, such as consciousness, intentionality, the self. The problem of consciousness: How is it related to the brain and the body? The problem of intentionality: The problem of the self: Other aspects of the mind-body problem arise for aspects of the physical. The problem of embodiment: What is it for a body to belong to a particular subject? The seemingly intractable nature of these problems have given rise to many different philosophical views. Materialist views say that, despite appearances to the contrary, mental states are just physical states. Behaviourism, functionalism, mind-brain identity theory and the computational theory of mind are examples of how materialists attempt to explain how this can be so. The most common factor in such theories is the attempt to explicate the nature of mind and consciousness in terms of their ability to directly or indirectly modify behaviour, but there are versions of materialism that try to tie the mental to the physical without explicitly explaining the mental in terms of its behaviour-modifying role. Idealist views say that physical states are really mental. This is because the physical world is an empirical world and, as such, it is the intersubjective product of our collective experience. Dualist views the subject of this entry say that the mental and the physical are both real and neither can be assimilated to the other. For the various forms that dualism can take and the associated problems, see below. In sum, we can say that there is a mind-body problem because both consciousness and thought, broadly construed, seem very different from anything physical and there is no convincing consensus on how to build a satisfactorily unified picture of creatures possessed of both a mind and a body. In the classical and mediaeval periods, it was the intellect that was thought to be most obviously resistant to a materialistic account: Plato believed that the true substances are not physical bodies, which are ephemeral, but the eternal Forms of which bodies are imperfect copies. It is their connection with intelligibility that is relevant to the philosophy of mind. Because Forms are the grounds of intelligibility, they are what the intellect must grasp in the process of understanding. In *Phaedo* Plato presents a variety of arguments for the immortality of the soul, but the one that is relevant for our purposes is that the intellect is immaterial because Forms are immaterial and intellect must have an affinity with the Forms it apprehends 78b4â€”84b8. This affinity is so strong that the soul strives to leave the body in which it is imprisoned and to dwell in the realm of Forms. It may take many reincarnations before this is achieved. Their difference in nature makes the union a mystery. Aristotle did not believe in Platonic Forms, existing independently of their instances. This enabled Aristotle to explain the union of body and soul by saying that

the soul is the form of the body. Because this seems to make the soul into a property of the body, it led many interpreters, both ancient and modern, to interpret his theory as materialistic. Nevertheless, the text makes it clear that Aristotle believed that the intellect, though part of the soul, differs from other faculties in not having a bodily organ. He argued that the intellect must be immaterial because if it were material it could not receive all forms. Just as the eye, because of its particular physical nature, is sensitive to light but not to sound, and the ear to sound and not to light, so, if the intellect were in a physical organ it could be sensitive only to a restricted range of physical things; but this is not the case, for we can think about any kind of material object (De Anima III,4; 1029b9). As it does not have a material organ, its activity must be essentially immaterial. These issues might seem to be of purely historical interest. But we shall see in below, in section 4. See, for example, Aquinas, Part I, questions 75 and 77. But though the form and, hence, the intellect with which it is identical are the substance of the human person, they are not the person itself. The soul, though an immaterial substance, is the person only when united with its body. Without the body, those aspects of its personal memory that depend on images which are held to be corporeal will be lost. See Aquinas, Part I, question 77. Descartes was a substance dualist. He believed that there were two kinds of substance: For Aristotle, there is no exact science of matter. How matter behaves is essentially affected by the form that is in it. You cannot combine just any matter with any form—you cannot make a knife out of butter, nor a human being out of paper—so the nature of the matter is a necessary condition for the nature of the substance. But the nature of the substance does not follow from the nature of its matter alone: Matter is a determinate made determinate by form. This was how Aristotle thought that he was able to explain the connection of soul to body: If matter is atomic, then it is already a collection of determinate objects in its own right, and it becomes natural to regard the properties of macroscopic substances as mere summations of the natures of the atoms. Although, unlike most of his fashionable contemporaries and immediate successors, Descartes was not an atomist, he was, like the others, a mechanist about the properties of matter. Bodies are machines that work according to their own laws. Except where there are minds interfering with it, matter proceeds deterministically, in its own right. Descartes opted for the pineal gland, mainly because it is not duplicated on both sides of the brain, so it is a candidate for having a unique, unifying function. The main uncertainty that faced Descartes and his contemporaries, however, was not where interaction took place, but how two things so different as thought and extension could interact at all. This would be particularly mysterious if one had an impact view of causal interaction, as would anyone influenced by atomism, for whom the paradigm of causation is like two billiard balls cannoning off one another. The appropriate states of mind and body were only the occasions for such intervention, not real causes. Now it would be convenient to think that occasionalists held that all causation was natural except for that between mind and body. In fact they generalized their conclusion and treated all causation as directly dependent on God. Why this was so, we cannot discuss here. Locke, as a moderate empiricist, accepted that there were both material and immaterial substances. Berkeley famously rejected material substance, because he rejected all existence outside the mind. Finally, he decided that the self, conceived as something over and above the ideas of which it was aware, was essential for an adequate understanding of the human person. Although the self and its acts are not presented to consciousness as objects of awareness, we are obliquely aware of them simply by dint of being active subjects. Hume rejected such claims, and proclaimed the self to be nothing more than a concatenation of its ephemeral contents. In fact, Hume criticised the whole conception of substance for lacking in empirical content: This position has been labelled bundle dualism, and it is a special case of a general bundle theory of substance, according to which objects in general are just organised collections of properties. The problem for the Humean is to explain what binds the elements in the bundle together. This is an issue for any kind of substance, but for material bodies the solution seems fairly straightforward: For the mind, mere causal connection is not enough; some further relation of co-consciousness is required. We shall see in 5. His bundle theory is a theory about the nature of the unity of the mind. As a theory about this unity, it is not necessarily dualist. Parfit, and Shoemaker, ch. In general, physicalists will accept it unless they wish to ascribe the unity to the brain or the organism as a whole. Before the bundle theory can be dualist one must accept property dualism, for more about which, see the next section. A crisis in the history of dualism came, however, with the growing

popularity of mechanism in science in the nineteenth century. This means that everything that happens follows from and is in accord with the laws of physics. There is, therefore, no scope for interference in the physical world by the mind in the way that interactionism seems to require. According to the mechanist, the conscious mind is an epiphenomenon a notion given general currency by T. In this way, the facts of consciousness are acknowledged but the integrity of physical science is preserved. However, many philosophers found it implausible to claim such things as the following; the pain that I have when you hit me, the visual sensations I have when I see the ferocious lion bearing down on me or the conscious sense of understanding I have when I hear your argumentâ€”all have nothing directly to do with the way I respond. It is very largely due to the need to avoid this counterintuitiveness that we owe the concern of twentieth century philosophy to devise a plausible form of materialist monism. But, although dualism has been out of fashion in psychology since the advent of behaviourism Watson and in philosophy since Ryle , the argument is by no means over. Some distinguished neurologists, such as Sherrington and Eccles Popper and Eccles have continued to defend dualism as the only theory that can preserve the data of consciousness. Amongst mainstream philosophers, discontent with physicalism led to a modest revival of property dualism in the last decade of the twentieth century.