

## 1: Substance (Stanford Encyclopedia of Philosophy)

*Kant's interest in the physics, metaphysics, epistemology, and theology of his predecessor G.W. Leibniz is evident in his writings in the philosophy of natural science as well as in the passages of the Critique of Pure Reason dealing with transcendental ideas.*

The challenging tone towards the followers of Leibniz that the young Kant, as an aspiring physicist and cosmologist, adopted gave way in time to respectful engagement with the philosopher himself, as Kant became an increasingly determined critic of materialism. Kant describes Leibniz as one of the greatest and most successful reformers of the modern era. The suspension of the whole enterprise announced by Kant should not obscure the fact that Leibniz and Kant shared an ethico-religious conception of philosophy. Leibniz wrote in an era in which the universities were still dominated by Christian philosophy. Whatever his private leanings towards mystical and philosophical religion, he believed that a strong and unified religious authority was essential to the maintenance of moral and political order, and the content of morality did not strike him as problematic. Kant, though steeped in Protestant theology and moral philosophy, favoured the newer trend towards the academic autonomy of philosophy and secular morality and governance. Yet, as a moral rigorist, he had to contend with the rising influence of materialism in Germany. How could morality be reconciled with Newtonian science and how could the existence of ineluctable duties be established in the face of the variety of human practices and customs established by Montesquieu and the numerous travel writers on whose accounts Kant relied in compiling his lectures on Anthropology? Leibniz, he noted, was at least not contradictory in the way Locke had been; he denied that knowledge was limited by our experience. For Kant, however, metaphysics could not provide knowledge of the supersensible, including the existence of God, the possibility of the realization of a highest good in the natural world, or the ability of human beings to realize that good through their endowments. Here there is no crime without punishment, no good action without proportionate reward, and finally as much virtue and happiness as is possible. Ariew and Garber, Referencing Leibniz, Kant adapted this dualistic scheme into his own scheme of transcendental ideas. In nature, everything happened mechanically though with mechanism potentially embracing a somewhat richer ontology of forces than Leibniz had allowed for. Human beings, though not other spirits – for Kant disdained the notion of incorporeal spirits – formed a moral community see Guyer. To view ourselves, therefore, as in the world of grace, where all happiness awaits us, except insofar as we ourselves limit our share in it through being unworthy of happiness, is, from the practical standpoint, a necessary idea of reason. Kant denied that the present world contained as much goodness and happiness as possible. Rather, it was definitely progressing towards greater cultural development, and perhaps moral development. Hope and effort, especially in the latter struggle where they were most needed, was itself morally mandated. The dogmatic metaphysicians preceding him, Kant argued, imagined that they could demonstrate the truth of their doctrines in rigorous mathematical fashion, but metaphysical concepts lacked the precision and intelligibility of mathematical concepts. At the same time, they put their trust in intellectual intuition, which was no more certain than the visionary and mystical writings of Emmanuel Swedenborg, who had set down his hallucinations and angelic dictations in twelve volumes of the *Arcana Coelestia*, which Kant read in and satirized in his *Dreams of a Spirit Seer*. At the same time, the details of his picture of the world behind the appearances, incorporating slumbering monads, confused omniscience, and the pre-established harmony, seemed to Kant gratuitous fancies. Where Leibniz rescued ethics and religion by claiming to discover a hidden reality of immortal, spontaneous souls forming a Kingdom of Grace beneath the material and causally-determined appearances, Kant believed he could accomplish the task of reconciling the scientific view of the world with moral aspiration and accountability by investigating the necessary preconditions of our experience. Necessary forms of thought such as space, time, causality and objecthood would thereby be distinguished from constraints embedded in reality. Though materialism is commonly associated with French Enlightenment figures, Kant considered it an English vice. Determinism and materialism seemed to support a lax moral philosophy, in which pleasure was conceived as the summum bonum, morality was conventional, and humans were anyway

machines devoid of responsibility for their actions. In those not given to dissipation, skepticism and empiricism led, Kant thought, to a sense of moral futility, misanthropy and despair. Kant was determined to attack fashionable, pessimistic, and libertine philosophies, but he had to show that he rejected rationalist demonstration as thoroughly as any empiricist. His manner of doing so was exceedingly elegant. By attempting to prove too much, human rationality accomplished too little. Traditional metaphysics left reason perturbed, confused, and unfulfilled. If Kant brooded on Leibnizian topics, however, it was not, except perhaps in the period of the controversy with J. Insofar as Kant professed embarrassment about his pre essays, it might be tempting to divide his discussion of Leibniz into a pre-critical before and a critical phase. The Principle of Contradiction Leibniz gives various formulations to his Principle of Contradiction or Law of Identity but the central idea is that a proposition and its negation cannot both be true G 7: Leibniz hoped to be able to construct a logical calculus that would enable all significant truths to be demonstrated, since every concept must include, be included in, or exclude every other. Later, he offers two specific criticisms of the Principle of Contradiction taken not in a logical, but in an ontological sense: First, Kant claims, the Principle is too weak to ban nonentities from theories. Second, the Principle of Contradiction is too strong. The opposition of attractive and repulsive forces in physics produces the phenomena of matter 4: Leibniz had abandoned his earlier view that two entities could be distinguished by place alone when he came to his view of real substances as infinitely complex and unique and space as ideal. Kant found the Principle arbitrary. We cannot have two concepts "concepts of two things" that are alike in all their specifications, but we can certainly have two empirical objects that are exactly alike. Why should we not be able to imagine two identical water droplets? It is sufficient for there to be two that they present themselves to us veridically in our visual space as two. Leibniz contested the corpuscularian image, insisting that it was insufficiently profound and inherently self-contradictory G 4: This might seem puzzling since Leibniz denied that we see the world as it really is. As Kant understood him, in failing to distinguish between intellectual representation and perception, Leibniz believed we saw aggregates of monads as objects. They are not in causal contact with us, though they affect us in such a way that we experience a sensory world structured according to the categories of time, space, causality and objecthood. Matter, Kant could readily agree with Leibniz, cannot be a thing in itself, stuff possessed of characteristics and qualities independent of human perception; what we call matter is an appearance 4: It is impossible to conceive two material atoms as both different from one another and as simple, i. Therefore, if substances are manifold and partless, they must have representational capacities. The crucial error in this reasoning lay in supposing that our abstract conceptions are a guide to reality behind the spatio-temporal appearances. In this regard, he did grasp that Leibniz did not after all take appearances for things in themselves. Despite his warnings about the limited powers of human reason, Kant too believed it possible to deduce some features of matter, as physical science must theorize it, a priori. There are no material atoms; matter is divisible to infinity and its parts are all material 4: Yet Kant recognized, first in the Physical Monadology, then in the Metaphysical Foundations, particles in the form of centres of attractive and repulsive forces that account for the space-filling property and impenetrability of matter 4: This relatively dogmatic treatment co-exists with his critical claim that matter is the appearance of a perfectly unknown substratum. As he explains it in the Critique of Pure Reason, the rainbow is a mere appearance relative to rain drops which, in a physical sense, are things-in-themselves and not mirages. This suggests that the stuff which is divisible to infinity and bears attractive and repulsive forces is an appearance of something unknown and unknowable. When we complain that we do not see into the inner nature of things, this can mean no more than that we cannot grasp, through pure reason, what the things that appear to us might be in themselves. Observation and division with respect to the appearances take us into the interior of nature, and we cannot say how far this will proceed. Space and Time Leibniz held a relational theory of space and time. Without things there would be no space, and without events there would be no time. Space and time are not containers into which things and events may be inserted but which could have remained empty. In the Third Letter to Clarke G 7: To the claim that space emerged somehow from the underlying monadic reality seemed to Kant to imply that the truths of mathematics "in this case three-dimensional geometry" depended on the existence of a world of things and events, which was absurd. However, the composition of bodies from monads as basic elements

presupposes their juxtaposition in space. If we confusedly perceive monads as physical objects in space, what would it be like to apprehend the monads distinctly as not in space but as the foundation of space? Yet if God had created just one glove, it would have been one or the other. Hence space does not depend on relations between things in space. Consider a container in which a single glove is floating. Is it a right-handed glove or a left-handed glove? We can insert various new items into this space-container, e. Space, Kant, decides, is related to directionality or orientation. Right-handedness and left-handedness are not merely anthropic concepts since nature itself insists on handedness in twining plants and the shells of snails 2: But which direction is right and which is left can only be established by a conscious, embodied being. It is not clear whether this orientational analysis implies that wherever there is space there must also be sentient beings with pairs of incongruent parts, as well as top-bottom and back-front asymmetry. Kant believed that locating space and time in us rather than in the world was an absolute barrier against the determinism that threatened the notion of moral responsibility A 5: Perceptions, in Leibniz, as in Descartes, are thoughts "presentations in the mind. The perceptual thought that there is a green tree in front of me is not absolutely unlike the mathematical thought that triangles have three angles. Though Leibniz denied the existence of purely material corpuscles and the possibility of causal influx or even interaction between real substances, he agreed that, from the perspective of what he sometimes terms mere physical science, perception required interaction, and that corpuscular motions were involved in the perception of sensory qualities such as light and colour. Perception can therefore be said to confuse what reason delivers to us clearly A , , Though we are unable to grasp the sufficient reason of particular colours, there is nothing arbitrary in their connection with their underlying causes A f. It was this view that Kant presented as entirely opposed to his own teaching with regard to the faculties of the soul. Thought implies an ability to experience representations of another type not involving the forms of sensibility "space, time, and causality. Spatio-temporal features are attached to all our perceptions and to our perceptual thoughts, but not to the concepts we entertain descriptively. We can think of things in themselves, and even of God, the soul, and other such entities, acknowledging their existence and even their powers, but we do not perceive them and we cannot represent them in sensuous form. All monads, according to Leibniz, are confusedly omniscient G 6: Kant was scornful of what he regarded as transcendental reverie. Though Kant later professed agnosticism as to whether perception and mentality in general were explicable mechanically, the emphasis on the active powers of the mind by contrast with the passivity of matter remains important in his theory of mind. By showing how each mode of apprehension involved certain necessary and distinct limitations on its employment, Kant was able to show that certain kinds of assertion in theology and metaphysics could not be genuine knowledge-claims. Perception was limited by the kinds of bodies we had and the manner in which we could be affected by external objects. We could not acquire scientific knowledge of the origins of the universe, or of our condition after death. Pure reason could not fill in details that were beyond all possible experience. The claims of metaphysics had to be synthetic, informative and not true by definition, yet a priori true. Arithmetic and geometry supplied synthetic a priori truths in abundance, and natural science supplied synthetic a posteriori truths, as well as exhibiting synthetic a priori propositions, such as the conservation of force. Already in his prize essay of , the Investigation of the Intelligibility of the Fundamental Principles of Natural Theology and Morals, Kant claimed that moral and theological principles were not capable of demonstration, since their terms, unlike mathematical terms, lacked precise definition. Geometrical concepts lend themselves to use in demonstrations because they are constructed and presented to intuition, which is impossible with respect to metaphysical concepts such as the soul. In the Critique of Pure Reason, he says: What is the constitution of a thing that thinks?

### 2: On Kant's knowledge of Leibniz metaphysics: A reply to Garber | Stefan Storrie - www.enganchecubano

*Kant says Leibniz 'took the appearances for things in themselves': acquaintance with phenomena through perception is (confused) acquaintance with monads; acquaintance with the physical realm of relations is acquaintance with the monadic realm of intrinsic properties, as implied by the 'mirror thesis', and the 'well-foundedness' of.*

Editions of Leibniz 1. He was the son of a professor of moral philosophy. After university study in Leipzig and elsewhere, it would have been natural for him to go into academia. His professional duties were various, such as official historian and legal advisor. Leibniz was one of the great polymaths of the modern world. Moreover, a list of his significant contributions is almost as long as the list of his activities. As an engineer, he worked on calculating machines, clocks, and even mining machinery. As a librarian, he more or less invented the modern idea of cataloguing. As a mathematician, he not only produced ground-breaking work in what is now called topology, but came up with the calculus independently of though a few years later than Newton, and his notation has become the standard. In logic, he worked on binary systems, among numerous other areas. As a physicist, he made advances in mechanics, specifically the theory of momentum. He also made contributions to linguistics, history, aesthetics, and political theory. Throughout his life, he hoped that his work on philosophy, as well as his work as a diplomat, would form the basis of a theology capable of reuniting the Church, which had been divided since the Reformation in the 16th Century. Similarly, he was willing to engage with, and borrow ideas from, the materialists as well as the Cartesians, the Aristotelians as well as the most modern scientists. It is quite ironic, then, that he was a partial cause of a dispute between British and Continental mathematicians concerning who was first to develop the calculus and who might have plagiarized who, a dispute which slowed the advance of mathematics in Europe for over a century. As a result, a major controversy in Leibniz scholarship is the question of where to begin. Insofar as Leibniz is a logician, it is tempting to begin with his conception of truth and, indeed, this will be the starting point of this article. But insofar as Leibniz is a metaphysician, it is equally tempting to begin with his account of the nature of reality, in particular his notion of substance as monads. Less common, but perhaps equally likely, starting points might reside in Leibniz the mathematician, the theologian, or the physicist. These controversies, however, already contain a lesson: Or at least Leibniz evidently thought so, since often he uses an idea from one part of his philosophy to concisely prove something in an apparently quite distant philosophical region. Intuitively, a proposition is true when its content is adequate to the situation in the world to which it refers. For example, "the sky is gray" is true if and only if the thing out there in the world called "the sky" is actually the color called "gray" at the time the proposition is stated. This, however, raises issues about the relationship of language to the world and what "adequacy" consists in. Leibniz claims that one can bypass problems with the intuitive notion of truth, at least for the moment. Truth, according to Leibniz, is simply a proposition in which the predicate is contained in the subject. The predicate is what is asserted; the subject is what the assertion is about. All true propositions, then, can be expressed by the following general form: What is unique, however, is the single-mindedness with which he pursues the consequences of such an idea of truth. See, for example, "Correspondence with Arnauld," 14 July The notion of color is part of the notion of blue. But, Leibniz states that this "being contained" is implicitly or virtually the case with other truths see "Primary Truths" and "The Nature of Truth". Take, for example, the statement "Peter is ill. Leibniz, however, analyzes this as follows: But the fact that one finds out about Peter in this way does not make the statement that "Peter is ill" true and thus a piece of knowledge because of that reference. One must distinguish the concept of truth from pragmatic or methodological issues of how one happens to find out about that truth, or what one can do with the truth. The latter, according to Leibniz, are completely irrelevant to the question "What is truth? Leibniz also claims that a statement is true for all time—that is, whenever the statement is made. So, for example, the statement "Peter is ill on January 1st, " was true in the year even though no one knew it yet as well as in the year even though everyone may have forgotten about the illness by then. For if some person were capable of completing the whole demonstration by means of which he could prove this connection of the subject which is Caesar with the predicate which is his successful enterprise [winning the battle of Pharsalus, etc. However, there are

several ideas Leibniz introduces in this passage that require further investigation. What is meant by "completing the whole demonstration," by something having a "foundation," or by "a reason can be found? It only takes a little thought to realize that for any one subject like Peter or Caesar, the number of predicates which are true of it will be infinite or at least very large, for they must include every last thing Peter or Caesar did or will do, as well as everything that did or will ever happen to them. But now it is natural to ask: Why do all these predicates come together in the one subject? It could be that the predicates are a quite arbitrary or random collection—although Leibniz does not believe this, and it is certainly not intuitive. Rather, one predicate or set of predicates explains another. So, many at least of the predicates that are true of a subject "hang together" as a network of explanations. This is why he uses words like "foundation" and "reason" in the quotation above. The principle of sufficient reason also accounts for why Leibniz uses the phrase "completing the whole demonstration" in the above quote. That is, working forward, one could deduce that Caesar will cross the Rubicon from all the predicates that have been true of him; or, working backward, one can deduce from all those predicates true of Caesar at his death the reasons why he won the battle of Pharsalus. The "whole demonstration," then, is the revelation of the logical structure of the network of explanations that make Caesar who he is. However, this is clearly not something the average person can do. Human minds are not subtle and capacious enough for a task which may be infinite. Still, in a more limited way, one can certainly talk about personalities, characters, and causes or reasons for things. The quotation from Leibniz given above continues: These qualifications are quite important for Leibniz. This might entail that Caesar did not choose to cross the Rubicon, but that he was acting in a determined manner, like a machine. The free will problem will be discussed in more detail below, but for the moment, a few observations can be made. To be sure, history would have been different—even Caesar would have been different—but there is no contradiction in that strong sense. Second, any truth about Caesar—indeed, the whole complete concept of Caesar—is not "necessary in itself. So, while every property of Caesar is explained by some other property of Caesar, no property explains why it is true that Caesar existed. Caesar is not a necessary being. More detail will be added to this account below, but the existence of this debate should be kept in mind throughout. For the moment, simply observe that for humans though not for God, complete concepts are always concepts of existing substances—that is, of really existing things. To be the individual substance, Caesar, then, is to be such as to have a notion which includes everything that can truthfully be predicated of the subject Caesar. Moreover, just as for any one predicate, the complete concept contains other predicates which explain that predicate, for any given property of a substance, the complete individual substance will itself be the explanation for that property. Caesar chose to cross the Rubicon for many complex reasons, but they all boil down to this: Leibniz has much more to say about substance, but he claims that it all follows from this insight. However, the exact relationship Leibniz intended between the logical idea of a complete concept and the metaphysical idea of a substance is still debated in Leibniz scholarship. Thus, there must be a sufficient reason for why this particular substance, Caesar, exists, rather than some other substance, or nothing at all. What, then, sufficiently explains a contingent being such as Caesar? Possibly other substances, such as his parents, and they in turn are explained by still others? But the entire course of the universe, the total aggregate of substances across space and time, are one and all contingent. The totality of contingent things themselves do not sufficiently explain themselves. Here again, the principle of sufficient reason applies. Note, however, that this does not assume an origin or beginning in any sense. Even if time stretched infinitely into the past, there would still be no explanation for the total course of things. God, according to Leibniz, is the necessary being which constitutes the sufficient explanation of the totality of contingent things—why the universe is this way rather than any other. God as a being may be necessary, but if the contingent universe were simply a random or arbitrary act of God, then God would not constitute the required explanation of all things. It must be possible, therefore, to inquire into the reasons God had for authorizing or allowing this, rather than any other, universe to be the one that actually exists. And if God is to be the explanation of the intelligibility of the universe, then God must have access to that intelligibility, such that God could be said to know what it is that is being allowed to exist—that is, God must have the ability to grasp complete concepts, and to see at once the "whole demonstration" discussed above. God so far is therefore i a necessary being, ii the explanation of the universe,

and iii the infinite intelligence. Here Leibniz famously brings in the notion of perfection see, for example, "A Specimen of Discoveries". In the mind of God are an infinite number of infinitely complex and complete concepts, all considered as possibly existent substances, none having any particular "right" to exist. There is just one constraint on this decision: In other words, each substance may individually be possible, but they must all be possible together--the universe forming a vast, consistent, non-contradictory system. God could choose a universe in which there is the greatest possible quantity of pizza, or in which everything is purple, and so on. However, according to Leibniz, God chooses the universe that is the most perfect. There may be a difficult theological implication here: Leibniz attempts, for example, in the "Correspondence with Arnauld" to escape this conclusion. To try to understand further this notion of perfection, Leibniz explores several concepts in various writings: The last of these is the explanation he continually comes back to: Leibniz seems to understand this principle as simply self-evident. It certainly seems to be a big jump to the aesthetic, moral, and wise God from the ontological conception of God deduced above. However, Leibniz may have a point in arguing that it would be absurd in some sense for an infinite being to choose anything other than an infinitely rich and thus perfect universe. He also finds this aesthetic observed throughout nature: In fact, it is a version of the third of the cosmological arguments given by St. Thomas Aquinas, and subject to many of the same difficulties.

## 3: Leibniz and Kant - Oxford Scholarship

*The choice of form as substance causes perplexity because the form seems to be a universal and equivalent to the secondary substance, and so not the most fundamental case of substance. But whether substantial forms are universals in Aristotle is a controversial matter.*

The challenging tone towards the followers of Leibniz that the young Kant, as an aspiring physicist and cosmologist, adopted gave way in time to respectful engagement with the philosopher himself, as Kant became an increasingly determined critic of materialism. Kant describes Leibniz as one of the greatest and most successful reformers of the modern era. The suspension of the whole enterprise announced by Kant should not obscure the fact that Leibniz and Kant shared an ethico-religious conception of philosophy. Leibniz wrote in an era in which the universities were still dominated by Christian philosophy. Whatever his private leanings towards mystical and philosophical religion, he believed that a strong and unified religious authority was essential to the maintenance of moral and political order, and the content of morality did not strike him as problematic. Kant, though steeped in Protestant theology and moral philosophy, favoured the newer trend towards the academic autonomy of philosophy and secular morality and governance. Yet, as a moral rigorist, he had to contend with the skepticism and conventionalism voiced by Locke and David Hume and the attacks on metaphysics of Etienne de Condillac, Leonhard Euler, Voltaire, and the Baron Holbach. How could morality be reconciled with Newtonian science and how could the existence of ineluctable duties be established in the face of the variety of human practices and customs? Leibniz, he noted, was at least not contradictory in this respect; he denied that knowledge was limited by our experience. For Kant, however, metaphysics could not provide knowledge of the supersensible, including the existence of God, the possibility of the realization of a highest good in the natural world, or the ability of human beings to realize that good through their endowments. The dogmatic metaphysicians preceding him, Kant argued, imagined that they could demonstrate the truth of their doctrines in rigorous mathematical fashion, but metaphysical concepts lacked the precision and intelligibility of mathematical concepts. At the same time, they put their trust in intellectual intuition, which was no more certain than the visionary and mystical writings of Emmanuel Swedenborg, who had set down his hallucinations and angelic dictations in twelve volumes of the *Arcana Coelestia*, which Kant read in and satirized in his *Dreams of a Spirit Seer*. At the same time, the details of his picture of the world behind the appearances, incorporating slumbering monads, confused omniscience, and the pre-established harmony, seemed to Kant gratuitous fancies. Where Leibniz rescued ethics and religion by claiming to discover a hidden reality of immortal, spontaneous souls beneath the material and causally-determined appearances, Kant believed he could accomplish the task of reconciling the scientific view of the world with moral aspiration and accountability by investigating the necessary preconditions of our experience. And although Priestley was personally exempt from the charge of libertinism, determinism and materialism, as ontological theses, seemed to support a lax moral philosophy, in which pleasure was conceived as the *summum bonum*, morality was conventional, and humans were anyway machines devoid of responsibility for their actions. In those not given to dissipation, skepticism and empiricism led, Kant thought, to a sense of moral futility, misanthropy and despair. Kant was determined to attack fashionable, pessimistic, and libertine philosophies, but he had to show that he rejected rationalist demonstration as thoroughly as any empiricist. His manner of doing so was exceedingly elegant. By attempting to prove too much, human rationality accomplished too little. Traditional metaphysics left reason perturbed, confused, and unfulfilled. If Kant brooded on Leibnizian topics, however, it was not, except perhaps in the period of the controversy with J. Insofar as Kant professed embarrassment about his pre-essays, it might be tempting to divide his discussion of Leibniz into a pre-critical before and a critical phase. The Principle of Contradiction Leibniz gives various formulations to his Principle of Contradiction or Law of Identity but the central idea is that a proposition and its negation cannot both be true. G 7: Leibniz hoped to be able to construct a logical calculus that would enable all significant truths to be demonstrated, since every concept must include, be included in, or exclude every other. Later, he offers two specific criticisms of the Principle of Contradiction taken not in a logical, but in an

ontological sense: First, Kant claims, the Principle is too weak to ban nonentities from theories. Second, the Principle of Contradiction is too strong. The opposition of attractive and repulsive forces in physics produces the phenomena of matter 4: Leibniz had abandoned his earlier the view that two entities could be distinguished by place alone when he came to his view of real substances as infinitely complex and unique and space as ideal. Kant found the Principle arbitrary. We cannot have two concepts "concepts of two things" that are alike in all their specifications, but we can certainly have two empirical objects that are exactly alike. Why should we not be able to imagine two identical water droplets? It is sufficient for there to be two that they present themselves to us veridically in our visual space as two. As Kant understood him, Leibniz had maintained that to see an ordinary physical object is to have a confused representation that, if we were to represent it more adequately, would appear to us as what it really is, an aggregate of monads Cf. Rejecting the particle-theory of Democritus, revived in modern times by Bacon, Galileo, Descartes, Gassendi, Boyle, and Locke, as insufficiently profound and inherently self-contradictory G 4: Kant appreciated the reasons that led Leibniz to posit soul-like entities rather than material atoms as the basic elements of the world. Matter cannot be a thing in itself, he agreed; what we call matter is an appearance 4: The inner nature of substances cannot be described by reference to shape, contact or movement, which characterize the objects presented to us. It is impossible to conceive two material atoms as both different from one another and as simple, i. Therefore, if substances are manifold and partless, they must have representational capacities. The crucial error in this reasoning lay in supposing that our abstract conceptions are a guide to reality behind the spatio-temporal appearances. Kant absolutely rejects idealism, but he too believed it possible to deduce some features of matter, as physical science must theorize it, a priori. There are no material atoms; matter is divisible to infinity and its parts are all material 4: Yet Kant recognized, first in the Physical Monadology, then in the Metaphysical Foundations, particles in the form of centres of attractive and repulsive forces that account for the space-filling property and impenetrability of matter 4: This relatively dogmatic treatment co-exists with his critical claim that matter is the appearance of a perfectly unknown substratum. As he explains it in the Critique of Pure Reason, the rainbow is a mere appearance relative to rain drops which, in a physical sense, are things-in-themselves and not mirages. This suggests that the stuff which is divisible to infinity and bears attractive and repulsive forces is an appearance of something unknown and unknowable. When we complain that we do not see into the inner nature of things, this can mean no more than that we cannot grasp, through pure reason, what the things that appear to us might be in themselves. Observation and division with respect to the appearances take us into the interior of nature, and we cannot say how far this will proceed. But every transcendental question that takes us beyond [perceptible] nature can never be answered. Space and Time Leibniz held a relational theory of space and time. Without things there would be no space, and without events there would be no time. Space and time are not containers into which things and events may be inserted but which could have remained empty. According to Leibniz, the supposition that space and time were real implied that a universe could have been placed to the east or west of its present location, or created before or after the actual moment of its creation. Yet no meaning could be attached to such a supposition G 7: It seemed to him to imply that the truths of mathematics depended on the existence of a world of things and events, which was absurd. However, the composition of bodies from monads as basic elements presupposes their juxtaposition in space If we confusedly perceive monads as physical objects in space, what would it be like to apprehend the monads distinctly as not in space but as the foundation of space? On the Basis of the Difference of Regions in Space introduced the problem, taken up in the Prolegomena of and the Metaphysical Foundations. A possible universe-located-two-miles-further-east-than-it-is might be, just as Leibniz claimed, no different from a possible universe-located-two-miles-further-west-than-it-is. Yet a left-twining and a right-twining spiral, Kant points out in his essay, are really different. They correspond perfectly without being identical. Consider a container in which a single glove is floating. Is it a right-handed glove or a left-handed glove? We can insert various new items into this space-container, e. A genuine feature of physical objects outside of us, right-handedness and left-handedness, Kant had already decided in , presupposes the existence of conscious beings. Perceptions, in Leibniz, as in Descartes, are thoughts "presentations in the mind. The perceptual thought that there is a green tree in front of me is not absolutely unlike the mathematical thought

that triangles have three angles. Though Leibniz denied the existence of purely material corpuscles and the possibility of causal influx or even interaction between real substances, he agreed that, from the perspective of what he sometimes terms mere physical science, perception required interaction, and that corpuscular motions were involved in the perception of sensory qualities such as light and colour. Perception can therefore be said to confuse what reason delivers to us clearly A , , Though we are unable to grasp the sufficient reason of particular colours, there is nothing arbitrary in their connection with their underlying causes A f. It was this view that Kant presented as entirely opposed to his own teaching with regard to the faculties of the soul. Even sensory imaginings, dreams, and illusions are to be understood as dependent on our ability to be so affected. Thought implies an ability to experience representations of another type not involving the forms of sensibility â€” space, time, and causality. Spatio-temporal features are attached to all our perceptions and to our perceptual thoughts, but not to the concepts we entertain descriptively. We can think of things in themselves, and even of God, the soul, and other such entities, acknowledging their existence and even their powers, but we do not perceive them and we cannot represent them in sensuous form. All monads, according to Leibniz, are confusedly omniscient G 6: Kant was scornful of what he regarded as transcendental reverie. Though Kant later professed agnosticism as to whether perception and mentality in general were explicable mechanically, the emphasis on the active powers of the mind by contrast with the passivity of matter remains important in his theory of mind. By showing how each mode of apprehension involved certain necessary and distinct limitations on its employment, Kant was able to show that certain kinds of assertion in theology and metaphysics could not be genuine knowledge-claims. Perception was limited by the kinds of bodies we had and the manner in which we could be affected by external objects. This put certain bounds on science: Pure reason could not fill in details that were beyond all possible experience. The Cartesian tradition that Leibniz inherited promised a demonstrative science of God, the soul, and the world, but this, Kant argued, was a misguided hope. The claims of metaphysics had to be synthetic, informative and not true by definition, yet a priori true. Arithmetic and geometry supplied synthetic a priori truths in abundance, and natural science supplied synthetic a posteriori truths, as well as exhibiting synthetic a priori propositions, such as the conservation of force. Already in his prize essay of , the Investigation of the Intelligibility of the Fundamental Principles of Natural Theology and Morals, Kant claimed that moral and theological principles were not capable of demonstration, since their terms, unlike mathematical terms, lacked precise definition. Geometrical concepts lend themselves to use in demonstrations because they are constructed and presented to intuition, which is impossible with respect to metaphysical concepts such as the soul. In the Critique of Pure Reason, he says: What is the constitution of a thing that thinks? The Prolegomena returns to the question how metaphysics can, like natural science and mathematics, employ synthetic judgments when its concepts are not given in experience and are not constructed. The soul is not a supersensible object of whose faculties and powers we can acquire knowledge but an idea that makes our practice of ascribing experiences to ourselves intelligible. Kant eschews dogmatism both with respect to whether the soul is an immaterial substance and whether it is immortal. Matter, with its properties of extension, impenetrability, etc. But matter is only an appearance; whatever supersensible thing it is that gives rise to the appearance of matter, that thing may well be the same as whatever supersensible thing it is that gives rise to the experience of an experiencing self KRV A f. Already in the Measurement of Living Forces, he was grappling with the problem of the location of the soul and the nature of its action. Anatomists had long speculated that some region of the brain Descartes , pineal gland; Euler corpus callosum is the site of interaction between soul and body. For a time, Kant seems to have believed that souls were positioned in space and could act outside themselves and be acted upon by bodies. Later he became convinced that souls were not localized in space, though they could effect changes, deciding that that neither medicine nor metaphysics could illuminate the question.

## 4: Project MUSE - Unlocking the Second Antinomy: Kant and Wolff

*Gottfried Leibniz: Metaphysics. but temporal relations in a substance form an explanatory, intelligible sequence of a self-same thing. After Kant, Leibniz was.*

Although Descartes, Spinoza, and Leibniz disagree with one another in important ways concerning particular questions in ontology, they share substantive commitments concerning the intellectual powers of human beings and the relative weight given to intellectual representations in relation to those that are generated through sense experience. In addition to claiming that the mind is better known than the body, Descartes claims that the mind or the intellect is active in ways that are necessary for us to make the kinds of judgments concerning bodies that we do. The independence of the source of these ideas also frees us to use them in thinking about the difference between things as they are perceived by us through our senses and those same things as they exist in themselves; i. The former makes use of the idea of an extended thing *res extensa*. Like all bodies, the wax is extended in three dimensions. It is extended before it is melted, and it is still extended after it is melted, no matter how much the particular quantities of its extension e.g, its shape and its size have changed. When we perceive the wax as being hot or cold, soft or hard, sweet-smelling or having no smell, we represent the wax, not as it really is in itself, but as it happens to appear to our senses somewhat obscurely and confusedly. Leibniz provides an alternate account of what the wax really is, or what bodies in general really are. Spatial extension is not a fundamental attribute of substance, according to Leibniz. Instead, we are representing it abstractly i. The imagination allows us to represent the outward forms of things, but not their inner being. The property of being extended is itself dependent on, or grounded in, some more fundamental attribute of the substance, or substances, that both characterizes these things as they are in-themselves and grounds the extension of bodies. For Leibniz, what is fundamental to a substance is its primitive forces or powers. We are aware of our own powers of representation and desire, or perception and appetition, through the *cogito*; that is, through our conscious or apperceptive exercise of these powers in thinking and willing I think. This provides the basis for thinking the substances responsible for the extension of bodies as also being active through powers of perception and appetition that are analogous to our intellect and our will. There is no real difference in kind, for Leibniz, between the simple substances that make up bodies and the simple substances that we are as human intellects. The difference is simply one of degree with respect to the clarity and distinctness of the representative states that are grounded in these characteristic active forces or powers. He famously claims that we have no impression of substance, but he does not think this means the idea stems from some pure power of intellect. It is not evidence that the mind plays an active role in making judgments about the objects of our sense experience. It does not allow us to think about these objects as they are in themselves. It means, instead, that the idea is suspect. Unless we can trace it back to some impression whether a sensible impression or an impression made on the mind through force of habit or custom, we should remain suspicious of its use in philosophy. Hume argues that the same holds for so-called mental causation. The impressions from which these ideas are produced are, instead, the feelings that arise in the mind when it perceives one thing and infers the existence of some distinct thing; that is, when it perceives the cause and infers the existence of the effect or perceives the effect and infers the existence of the cause. We can think about and draw conclusions concerning real existing things as causes in relation to perceived events or states of affairs, because we have been trained by experience concerning what kinds of things there are and what kinds of causes and effects these things have. We do not, for Hume, have an active intellectual power that enables us to conceive and to cognize things-in-themselves through themselves.

## 5: Kant on Space | Issue 49 | Philosophy Now

*He is editing an anthology of essays that explores the relation between Leibniz and Kant and that is under contract with Oxford University Press. And he is at work on a monograph, Leibniz, Kant and the Possibility of Metaphysics, which details Kant's critical reaction to Leibniz.*

The Origins of Analytic Philosophy: Kant and Frege Published: Kant and Frege, Continuum, , pp. Reviewed by Jeremy Heis, University of California, Irvine Historians of philosophy, Delbert Reed tells us in the opening pages of this book, have recently come to recognize that early analytic philosophy developed largely in reaction to Kant. There Frege argues, against Kant, that the truths of arithmetic are not based on intuition but are analytic a priori, and that logic can in fact extend our knowledge. Nevertheless, many scholars writing on Frege and Kant have found a host of interesting connections between the two. This is likely to frustrate those already engaged in the study of Kant or early analytic philosophy. For the most part, Reed understandably focuses on the passages in the Foundations of Arithmetic where Frege explicitly criticizes Kant. Part 4 titled "From substance to object" is the longest and most interesting. There, Reed explores the complex relation of various Kantian and Fregean doctrines to an Aristotelian metaphysics of substances -- represented in the modern period by Leibniz. First the general comment. But it also has a danger, that not enough attention will be paid to an important preliminary concern: Frege thought that existence is not a first-level concept like is human or is prime, but a second-level concept true of any first-level concept under which at least one object falls. Kant argued, against proponents of the ontological argument, that existence is not a "real predicate, i. Reed thinks that Frege thus "follows Kant and treats existence as a second-level concept" For Kant, concepts are a particular kind of representation and objects are what our representations refer to. For Frege, concepts and objects are not representations, but different types of things that our expressions refer to -- the former being "unsaturated," the latter "saturated. For Kant, a judgment is analytic when its predicate concept is contained in its subject concept; for Frege, a truth is analytic when it can be proven logically from definitions and logical laws. For Kant, logic is perhaps by definition? Reed seems to me too quickly to assume that Frege and Kant are not talking past one another. Now three specific comments. But these three Fregean theses are distinct: That is, the Begriffsschrift is a characteristic language. We find Frege arguing for 1 and 2 as early as Yet during this same period, Frege seems still to hold the Kantian view that logic is formal. Similarly, Kant has distinct reasons for denying each of the three theses. Kant rejected the possibility of a characteristic language from early in his career, for reasons independent of the critical doctrines. And he rejects 3 because of the conjunction of his critical distinction between intuiting and thinking and his distinctively critical doctrine that all of the content of our representations depends on there being objects that affect us through sensibility. First, Frege "escapes the shackles of the metaphysics of inherence" by rejecting the subject-predicate analysis of judgments and thereby treating a "relational expression as designating a real relation between two objects" Third, Kant, unlike Frege, holds that all relations among real objects must be reducible to internal properties of substances, and Kant uses this principle to prove the ideality of space and time , , Fourth, Kant, like Leibniz, thinks that relations must be reducible to internal properties because he lacks "an adequate logic of relations" Reed attributes to Kant the following argument 8, 10, , Therefore, the things in space are ideal, not real. For Reed, this argument relies on the principle, defended by Leibniz and famously attacked by Russell, of the reducibility of relations: All of the relations of a real object are reducible to internal properties of those objects. Reed thinks that Kant was driven to adopt the principle of the reducibility of relations because of the limitations of the logic available to him. Given the role of the principle in [R], Reed therefore concludes that Kant draws "a metaphysical and epistemological conclusion based largely upon a limitation of formal logic" Reed sometimes writes as if this reading of Kant is the same as that put forward by Michael Friedman. It requires substantial work to attribute [R] to Kant. Kant never explicitly endorses the principle of the reducibility of relations in the first Critique, and many commentators have reasonably denied that Kant endorses this Leibnizian thesis. For confirmation of this theory of the ideality of outer as well as inner sense, thus of all objects of the senses, as mere appearances, this comment is especially useful: But this passage does

not endorse the principle of the reducibility of relations. Rather, it relies on a weaker principle -- that every real object must have at least some internal properties; that is, that there could not be a real object all of whose properties are relations. To see how much weaker this principle is, recall that Russell, that great foe of the principle of the reducibility of relations, in fact endorses this weaker thesis. In any case, one might wonder why any of this should be in a book that is principally about Frege. It is true, of course, that Frege showed no anxiety about reducing all the relational sentences in *Begriffsschrift* to sentences containing only monadic sentences. But this is not because Frege was aware of the metaphysical arguments for the reducibility of relations and had some refutation of them. Unlike Russell, whose upbringing in Bradleian metaphysics had left him "filled with the importance of relations," [11] Frege seems to have been in many respects innocent of traditional philosophical debates, and it distorts his motivations to attribute to him explicitly metaphysical concerns. Maybe so, but Reed does not explain why. Russell, who -- like Reed -- attributes the axiom of internal relations to Kant, never suggests that it is the new logic that undermines the axiom. Reed argues that Kant would reject the Fregean doctrine that we can know that there are mathematical objects that are causally inert and do not exist in space and time. Since they are not given in sensible intuition, noumena do not cause our representations of them. But neither do we produce these objects through our representations. And so it is completely unclear how we could ever come to refer to them. References Allison, Henry E. *Tales of the Mighty Dead: Historical Essays in the Metaphysics of Intentionality*. Translated by Peter Long and Roger White. *Die Grundlagen der Arithmetik*. Translated by Austin as *The Foundations of Arithmetic*. Kluge, Brian McGuinness, and R. Translated by Terrell Ward Bynum. Oxford University Press, *Kant and the Exact Sciences*. Harvard University Press, *Critique of Pure Reason*. Translated by Paul Guyer and Allen Wood. Cambridge University Press, *Our Ignorance of Things in Themselves. Kant and the Capacity to Judge*. Translated by Charles Wolfe. Princeton University Press, *The Principles of Mathematics*. The first edition appeared in Dummett and others have noted that Frege, apparently throughout his career, sides with Kant against Russell in thinking that geometry is synthetic a priori and rests on intuition. Sluga has claimed that this conception of geometry commits Frege to some form of transcendental idealism; others have demurred. John MacFarlane, in a widely read paper, shows how and why Frege and Kant, though sharing a conception of logic as general, come to disagree on whether logic is formal. Reed does not mention any of these discussions. *Second Series*" [], original German edition, Rae Langton, in a rich and detailed discussion, has gone one step further. Jill Buroker, on the other hand, does think that Kant endorses the principle, and that he uses it implicitly in his argument for transcendental idealism based on the possibility of incongruent counterparts. Reed does not discuss any of these works.

## 6: Leibniz, Gottfried: Metaphysics | Internet Encyclopedia of Philosophy

*Finally, according to Leibniz, since these simple substances are ontologically primary and ground the phenomena of matter and motion, space and time are merely the ordered relations derivative of the corporeal phenomena.*

Critical Notice of Daniel Garber, Leibniz: This agreement with Kant has not been lost on the scholars involved in the debate. This notion is incompatible with a pure monadology because it involves the idea that monads are not sufficient to account for the nature of corporeal substance. However, what Garber believes is that it: Both of these arguments are highly problematic. With regards to the first point, Garber states that: Nor could it have been any other way. So for me, as a scholar of early-modern thought, the question is really the way in which Kant distorted the history of early-modern thought. In saying this, I do not mean to blame Kant for having committed any intellectual misdeed. My interest as an historian of early-modern philosophy is just to set the record straight. On the face of it, the claim that the fact that Kant was not a historian of philosophy supports the contention that Kant read Leibniz as he was taught him is puzzling. Kant began publishing serious philosophical work That is like someone publishing philosophy in referring to philosophical work from the s. It is true that Leibniz was mentioned in some works on the history of philosophy at the time that Kant was aware of, such as the highly influential Brucker, J. *Historia Critica Philosophiae*, 5 vol. This is surely true, but mere subtlety, Leibniz says bodies are substantial phenomena, they appear to be substances, but only the parts are. He presumably had another sense here than which Wolff and the author impute to him, otherwise he could well have kept this to himself, that can easily be comprehended by anyone. Nevertheless, it appears that Baumgarten is here presented as attacking Leibniz on the ground that the latter calls bodies substances. The problem, as Baumgarten sees it, is that a body is a composite of substances and therefore is not properly substantial because composition is an accident. At the end of this passage it also becomes clear that Kant attributes this criticism also to Wolff. If Leibniz says that bodies are substances, what he means is that they are substantial phenomena, that is, that bodies are grounded in simple substances, as phenomena of monads with the power of representation. Paul Guyer and Allen W. Baumgarten is not mentioned here. Following from the above citation his paper continues: Therefore, Kant would have been oblivious of the realist element in Leibniz middle period and the pluralist conception of metaphysics in the latter part of the Des Bosses correspondence. Beside the works that were indisputably well-known in the first half of the s, the *Theodicy*, the *Monadology* written and published and the articles he published in widely circulated journals, such as *Meditations on Knowledge, Truth, and Ideas*, *A Specimen of Dynamics*, *New System*, and *On Nature Itself*, it will be helpful to divide the material into the following four categories: Then, turning to what Garber takes to be most central, 3 the Arnauld correspondence and 4 the Des Bosses correspondence. *Otium Hanoveranum, sive Miscellanea*, Leipzig. Garber only mentions the Leibniz-Clarke correspondence. The correspondence with Bierling is from and so during what Garber understands as the idealist phase. However, the Bernoulli correspondence is highly significant. The first nine exchanges between Leibniz and de Volder, which took place between 5 July and 6 December, are letters between Leibniz and Bernoulli and in this way the early part of the de Volder correspondence is in fact included in the correspondence with Bernoulli. *Epistolae Ad Diversos*, Leipzig. *Oeuvres philosophiques*, Amsterdam and Leipzig. *Oeuvres de Messire Antoine Arnauld*, 43 vol. In fact, even though it included one letter less than the now standard edition of the correspondence that we have in Gerhardt it should probably be considered a superior edition. As Look and Rutherford explains: The result is an edition of uneven quality. In particular, the letters to Arnauld from and, the correspondence with Bernoulli, part of the de Volder 23 Dutens, L. *Gothofredi Guillelmi Leibnitii Opera Omnia*, 6 vol. *Die Philosophischen Schriften*, 7 vols. While Garber is correct in stating that the *Discourse on Metaphysics* and *Primary Truths* were not available to Kant, all his other claims about unavailable texts are either subject to qualification, or are false. Conclusion The aim of this paper has been limited to a historical point about the availability of texts. Of course, it does not follow that Kant in fact was acquainted with any of the works listed under 2 - 4. Lesser known texts and correspondences were also available. Schulenburg dated March 29, *Mathematischer Beweis der Erschaffung und Ordnung der Welt*, Leipzig, strongly suggesting that

Kant must have consulted one of these two works.

### 7: Kant and Leibniz (Stanford Encyclopedia of Philosophy/Fall Edition)

*in Kant and Leibniz () given a serious metaphysical basis in relation to the to ask what an individual substance is. Leibniz mentions the.*

You can read four articles free per month. To have complete access to the thousands of philosophy articles on this site, please Immanuel Kant Kant on Space Pinhas Ben-Zvi thinks Kant was inconsistent in his revolutionary ideas about the nature of space and time. Are they real existences? Are they only determinations or relations of things, yet such as would belong to things even if they were not intuited? At the time when he wrote that, conflicting theories of space dominated the scientific and philosophical world. Leibniz argued that space is merely relations between objects and is not a self-subsistent reality. The revolution is described by Kant as follows: Hence let us once try whether we do not get further with the problem of metaphysics by assuming that the objects must conform to our cognition, which would agree better with the requested possibility of an a priori cognition of them, which is to establish something about objects before they are given to us. Space and time serve as indispensable tools that arrange and systemize the images of the objects imported by our sensory organs. He further argues that this sensory-spatiotemporal process requires a supreme mediator that will synthesize the sensory input within our cognition so as to turn it into meaningful knowledge. Kant called this supreme synthesizer the Categories. Kant divides the twelve into four groups of three Categories each. He characterized the Categories as being: After he has drawn the scale on a board, the surveyor adds the results of his measurements which, without the pre-drawn scale, would lack any meaning. Kant further asserts that since we are dependent on our limited senses, all we can know is the way things appear as they are represented to us through our senses and cognition. To support his theory, Kant gave several arguments. The fourth is based on the admitted validity of Geometry which forms the bedrock for his proof of the properties of space. This can be inferred from his statement that: When Kant refers to geometry, he must mean Euclidean geometry, since Non-Euclidean geometry, the brainchild of the 19th Century, was unknown to him. With such semantic-conceptual roots its hardly conceivable that Euclid regarded Geometry as divorced from an objective independent space. From this it is manifest that the straight line drawn at right angles to the diameter of a circle from its end touches the circle. This phrase in the Latin translation of the Elements, is given as Quod Erat Demonstrandum, better known by its abbreviation - Q. Euclidean geometry deals with space when describing three-dimensional figures such as spheres, cylinders and cones. If we eliminate from geometry the property of space, it becomes a concept as meaningless as the concept of a non-angular triangle. Kant, in a different context, indeed observes that: Furthermore, Kant remarks that the perceiving of space and time is unique to us: The Unthinkable Absence of Space Kant presents an additional proof of his subjective space argument: It must therefore be regarded as the condition of the possibility of appearances, and not as a determination dependent upon them. Indeed the controversy as to whether the absence of space is conceivable, can be traced right back to Pre-Socratic philosophy. He asserted that the antinomy between Being and Non-Being is false. The only real antinomy is that of a single object of consciousness and all other things from which it is distinguished. Kant is not satisfied by just eliminating the notion of the existence of a real objective space. Trendelenburg claimed that Kant had presented the dilemma between the subjectivity and objectivity of space as being exclusive. Accordingly, by refuting the objective alternative, Kant left us no other choice but to choose the subjective view of space. In contrast to Kant, Trendelenburg argued that there is indeed a third choice available. The third choice is the view that space may be both subjective and at the same time objective and real, independent of our human constitution. He has also studied law in London and philosophy in Tel-Aviv. He practices commercial law in Tel-Aviv.

## 8: 17th Century Theories of Substance | Internet Encyclopedia of Philosophy

*On this reading Kant would then have failed to address the views of 'the real Leibniz', either because Leibniz' considered view was a realist metaphysics of corporeal substance or because Leibniz cannot be accurately pinned down to the idealist/realist dichotomy at all.*

He illustrates the various categories: To give a rough idea, ideas of substance are man, horse; of quantity: There is an important distinction pointed out by Aristotle between individual objects and kinds of individual objects. Thus, for some purposes, discussion of substance is a discussion about individuals, and for other purposes it is a discussion about universal concepts that designate specific kinds of such individuals. Thus Fido the dog is a primary substance—“an individual”—but dog or doghood is the secondary substance or substantial kind. Each arm of this distinction raises different issues. Aristotle was mainly, if not exclusively, concerned with questions of the first kind, but, as we shall see in sections 2. This association of substance with kinds carries over into a use of the term which is perhaps more scientific, especially chemical, than philosophical. This is the conception according to which substances are kinds of stuff. They are not individual objects nor kinds of individual object. Examples of this usage are water, hydrogen, copper, granite or ectoplasm. Atoms, fundamental kinds of stuff, gods, or abstract entities, such as Platonic Forms or numbers, might be considered to be substantial to the point of being indestructible or eternal: It seems, in summary, that there are at least six overlapping ideas that contribute to the philosophical concept of substance. Substances are typified as: We shall see later that the Kantian tradition adds a seventh mark of substance: It should be remarked in passing that at least one major expositor of Aristotle Irwin: This can be expressed as: The substances in a given system are those entities crucial from the teleological or design perspective of that system. Different philosophers emphasize different criteria from amongst this list, for reasons connected with their system as a whole. One could plausibly say that an account is intuitively more appealing, the more of the criteria it can find a place for. Probably, the Aristotelian tradition comes nearest to doing this. History of the philosophical debate on substance Almost all major philosophers have discussed the concept of substance and an attempt to cover all of this history would be unwieldy. The selection made will concentrate on those philosophers in whom the broadly analytic tradition has shown most interest. First we shall look at the development of the concept in the ancient world, culminating in the work of Aristotle. His account dominated debate through the Middle Ages and until the early modern period. We shall consider various rationalist and empiricist treatments of the concept. They thought, that is, that the being of the universe hence they were pursuing substance in sense i consisted in some kind or kinds of stuff. Thales, for example, thought that everything was essentially water, and Anaximenes that everything was a form of air. Atoms are objects in our ordinary sense, though they are not our ordinary objects: They are the subjects of predication, but they do not change their intrinsic properties. Classical atoms are, therefore, strong instances of i and ii, but somewhat deviant cases of iii and v. Plato rejected these materialist attempts to explain everything on the basis of that of which it was made. According to Plato, the governing principles were the intelligible Forms which material objects attempted to copy. These Forms are not substances in the sense of being either the stuff or the individuals or the kinds of individuals out of which all else is constructed. Rather they are the driving principles which give structure and purpose to everything else. In itself, the rest would be, at most, an unintelligible chaos. The Forms meet criterion i —“ontological basicness”—but in a slightly eccentric way, because they do not, in a normal sense, constitute things. They meet ii —“durability”—in a strong fashion, for they are eternal. They are not, in the intended senses, the subjects of predication, and in no sense the subjects of change, so they do badly on iii and iv. They do not do well on v for they are not individual things in any normal sense, though they are individuals, of a very unusual kind. They are in no way kinds of stuff, hence failing vi. It reflects his emphasis on criterion i, together with his particular view about the way in which forms are basic. These will be discussed in turn. The primary substances are individual objects, and they can be contrasted with everything else—“secondary substances and all other predicables”—because they are not predicable of or attributable to anything else. Thus, Fido is a primary substance, and dog—the secondary

substance can be predicated of him. Fat, brown, and taller than Rover are also predicable of him, but in a rather different way from that in which dog is. The interpretation of these expressions is, as usually with Aristotelian cruxes, very controversial, but a useful way of looking at it is as follows. Dog is said of Fido because it characterizes him as a whole. Fat and the others are described as being in because they pick out a constituent feature that could be said to be, in a logical though not a physical sense, part of, or in him. Fido the individual is not attributable to any further thing at all. This account is intuitive, but perhaps it cannot be treated as a formally adequate definition of the notion of primary substance or individual. Fido the individual could be said to be in a certain location and so attributed to something, namely a place. It is natural to reply to this that an object is not an attribute of a place in the same way as a property is an attribute of a thing: Although this may be true, it presupposes that we already have a grasp on the sense in which properties belong to objects and how this differs from the various ways that objects belong to or can be attributed to things, and that we can call upon this informal understanding in interpreting the theoretical account. Whether this is legitimate might depend on what the objective was. If the objective were to explain the difference between substance and property in an entirely non-circular way by appealing to the fact that properties are in substances but substances are not in things, this would involve taking the notion of being in as primitive. If we have to distinguish the sense in which properties are in substances from the way in which substances can be in things such as places before we can make the original point, then there has not been a non-circular account. If, on the other hand, the objective is simply to differentiate between concepts already in play, then Categories achieves its objective. If we understand his project in this way, we can see Aristotle as presenting various marks of substance in Categories. The marks of primary substance are: Being objects of predication but not being themselves predicable of anything else at least, not in the way entities in the other categories are: Being able to receive contraries. If substance did not exist it would be impossible for things in any of the other categories to exist. There could be no instances of properties if there were no substances to possess them. So we need marks for being a secondary substance, or substance concept. On this he says two things. For only they, of things predicated, reveal the primary substance. For if one is to say of the primary substance what it is, it will be more apt to give the species than the genus. The first is, however, once again intuitive but not compelling. Only in Section 3. The division between being said of and being in that is, between substance concepts and other properties seems intuitively clear enough until one remembers that substance concepts are complex and are definable in terms of other properties. Aristotle denies that this is so when they enter into the definition of a substance. The features that specifically make an object the kind of substance that it is, are called differentiae, and Aristotle says the differentia also is not in a subject. For footed and two-footed are said of man as subject, but are not in a subject; neither footed nor two-footed is in man. The issue is what constitutes the unity of the species or secondary substance: In order to begin to see how Aristotle tackled this problem we need the apparatus of form and matter, which does not appear in the Categories. We will see when discussing contemporary theories in section 3. This takes place mainly in Metaphysics, Book Z. In the latter, the analysis of substances in terms of form and matter is developed, whereas these notions have no place in Categories. In the earlier, Categories, substances are simply individuals; in the later work they are complexes of form and matter. Whether this represents a change of view, or whether the purposes of the Categories simply did not require reference to the metaphysical analysis of substance is a moot point. Aristotle analyses substance in terms of form and matter. The form is what kind of thing the object is, and the matter is what it is made of. Relative to the human body, matter is flesh and blood. The matter of an axehead is the iron from which it is made. Aristotle acknowledges that there are three candidates for being called substance, and that all three are substance in some sense or to some degree. First, there is matter, second, form and third, the composite of form and matter. Aristotle acknowledges that matter can be a subject of predication and of change, thereby meeting one of the main criteria set up in Categories b35ff. Two of the criteria of substancehood presented in the Introduction above are: But, without seeming to give much argument, he strongly favours v over vi. The elimination of matter as a good candidate for being substance, leaves either form alone or the composite of form and matter. The composite seems more consonant with the doctrine of Categories, for the composite is the individual. Aristotle, however, chooses the form as more paradigmatically

substance. This has puzzled some commentators. The choice of form as substance causes perplexity because the form seems to be a universal and equivalent to the secondary substance, and so not the most fundamental case of substance. But whether substantial forms are universals in Aristotle is a controversial matter. Interpreters disagree about whether the doghood that is in Fido is best regarded as the universal, or as the particular instance of the universal doghood, other dogs exemplifying numerically different instances of the same universal. On this view, the most perspicuous way of regarding the individual substance is not as the composite of form and matter though this is not wrong but as the form individualized in the matter. The matter is still an essential component in the substance, but not, so to speak, as an equal partner with the form, but as the catalyst by means of which the form becomes an individual substance.

## 9: Substance and Matter between Leibniz and Kant Â« Kant's philosophy

*In the Enquiry, Hume doesn't focus on the idea of substance, but he does focus on the idea of causality and on the idea of power or force, which, as we see in Leibniz, are close correlates of the idea of substance.*

In lieu of an abstract, here is a brief excerpt of the content: Unlocking the Second Antinomy: Kant and Wolff Michael Radner But how in this business can metaphysics be reconciled with geometry, when it seems easier to mate griffins with horses than to unite transcendental philosophy with geometry? The thesis argument especially baffles commentators. Edward Caird in said: No one, to my knowledge, has interpreted the text so that the thesis and antithesis arguments come out valid and constitute a genuine antinomy. Yet Kant stated on more than one occasion that all the antinomy arguments are valid. After two centuries of Kant interpretation, I believe that we can safely conclude that, whatever the Second Antinomy proves, it does not demonstrate such a flaw. Hence I will take a different tack in this paper. The Second Antinomy arguments, in my view, maintain whatever cogency they have in the context of eighteenth-century metaphysics and mathematics. Further, the antinomy is not merely two separate arguments; there is no conflict unless both sets of premisesâ€”those of the thesis and those of the antithesisâ€”are affirmed together. Substances were the basic ontological units on which the existence of everything else depended. Every substance metaphysician accepted the fundamental principle that properties and relations cannot exist without being properties and relations of something. During this period there was no other metaphysical system able to compete with substance theories for supremacy in philosophy. Instead, some critics adopted a skeptical stance: In the case of corporeal substances, the kind of interest in the Second Antinomy, the fixed characteristics essence assigned to the substances were [End Page ] supposed to provide a foundation for scientific explanations of the behavior of bodies. As physical science evolved, so did the essences postulated by the philosophers. The bodies that we perceive have two sorts of characteristics which engage physical scientists. They take up space and they participate in causal processes. The Second Antinomy treats the problem of explaining the extension of bodies within a substance framework. The antinomy abstracts from questions involving forces and interactions of substances, as we will see. You are not currently authenticated. View freely available titles:

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