

The Crusaders Reach Jerusalem (from a set of Scenes from Gerusalemme Liberata) Citation: Geach, P. T. "Causality and Creation." In God and the Soul. 2nd Ed. ed. Key Texts.

Ontological reductionism[edit] Ontological reductionism is the belief that reality is composed of a minimum number of kinds of entities or substances. This claim is usually metaphysical , and is most commonly a form of monism , in effect claiming that all objects, properties and events are reducible to a single substance. Richard Jones divides ontological reductionism into two: This permits scientists and philosophers to affirm the former while being anti-reductionists regarding the latter. She admits that the phrase "really real" is apparently senseless but nonetheless has tried to explicate the supposed difference between the two. Token ontological reductionism is the idea that every item that exists is a sum item. For perceivable items, it affirms that every perceivable item is a sum of items with a lesser degree of complexity. Token ontological reduction of biological things to chemical things is generally accepted. Type ontological reductionism is the idea that every type of item is a sum type of item, and that every perceivable type of item is a sum of types of items with a lesser degree of complexity. Type ontological reduction of biological things to chemical things is often rejected. Theory reductionism[edit] Theory reduction is the process by which one theory absorbs another. Theoretical reduction, therefore, is the reduction of one explanation or theory to another "€" that is, it is the absorption of one of our ideas about a particular item into another idea. This section needs additional citations for verification. Please help improve this article by adding citations to reliable sources. Unsourced material may be challenged and removed. August Learn how and when to remove this template message Reductionist thinking and methods form the basis for many of the well-developed topics of modern science , including much of physics , chemistry and cell biology. Classical mechanics in particular is seen as a reductionist framework, and statistical mechanics can be considered as a reconciliation of macroscopic thermodynamic laws with the reductionist method of explaining macroscopic properties in terms of microscopic components. In science, reductionism implies that certain topics of study are based on areas that study smaller spatial scales or organizational units. While it is commonly accepted that the foundations of chemistry are based in physics , and molecular biology is based on chemistry, similar statements become controversial when one considers less rigorously defined intellectual pursuits. For example, claims that sociology is based on psychology , or that economics is based on sociology and psychology would be met with reservations. These claims are difficult to substantiate even though there are obvious associations between these topics for instance, most would agree that psychology can affect and inform economics. For example, certain aspects of evolutionary psychology and sociobiology are rejected by some who claim that complex systems are inherently irreducible and that a holistic method is needed to understand them. In his book *The Blind Watchmaker* , Dawkins introduced the term "hierarchical reductionism" [17] to describe the opinion that complex systems can be described with a hierarchy of organizations, each of which is only described in terms of objects one level down in the hierarchy. He provides the example of a computer, which using hierarchical reductionism is explained in terms of the operation of hard drives , processors, and memory, but not on the level of logic gates , or on the even simpler level of electrons in a semiconductor medium. Others argue that inappropriate use of reductionism limits our understanding of complex systems. In particular, ecologist Robert Ulanowicz says that science must develop techniques to study ways in which larger scales of organization influence smaller ones, and also ways in which feedback loops create structure at a given level, independently of details at a lower level of organization. He advocates and uses information theory as a framework to study propensities in natural systems. He writes that "At each stage, entirely new laws, concepts and generalizations are necessary, requiring inspiration and creativity to just as great a degree as in the previous one. Psychology is not applied biology nor is biology applied chemistry. Ernst Zermelo was one of the major advocates of such an opinion; he also developed much of axiomatic set theory. Any such foundation would have to include axioms powerful enough to describe the arithmetic of the natural numbers a subset of all mathematics. Such propositions are known as formally undecidable propositions. For example, the continuum hypothesis is undecidable in the

Zermelo-Fraenkel set theory as shown by Cohen. In religion[edit] Religious reductionism generally attempts to explain religion by explaining it in terms of nonreligious causes. A few examples of reductionistic explanations for the presence of religion are: In linguistics[edit] Linguistic reductionism is the idea that everything can be described or explained by a language with a limited number of concepts, and combinations of those concepts. In philosophy[edit] The concept of downward causation poses an alternative to reductionism within philosophy. These philosophers explore ways in which one can talk about phenomena at a larger-scale level of organization exerting causal influence on a smaller-scale level, and find that some, but not all proposed types of downward causation are compatible with science. In particular, they find that constraint is one way in which downward causation can operate. Free will Philosophers of the Enlightenment worked to insulate human free will from reductionism. Descartes separated the material world of mechanical necessity from the world of mental free will. German philosophers introduced the concept of the " noumenal " realm that is not governed by the deterministic laws of " phenomenal " nature, where every event is completely determined by chains of causality. Antireductionism The anti-reductionist considers as minimum requirement upon the reductionist: Holism is the idea that items can have properties, emergent properties , as a whole that are not explainable from the sum of their parts. The principle of holism was summarized concisely by Aristotle in the *Metaphysics*: March This section possibly contains original research. Please improve it by verifying the claims made and adding inline citations. Statements consisting only of original research should be removed. February Learn how and when to remove this template message The development of systems thinking has provided methods for describing issues in a holistic rather than a reductionist way, and many scientists use a holistic paradigm. The conflict between reductionism and holism in science is not universal â€” it usually concerns whether or not a holistic or reductionist method is appropriate in the context of studying a specific system or phenomenon. In many cases such as the kinetic theory of gases , given a good understanding of the components of the system, one can predict all the important properties of the system as a whole. In other systems[which? Complexity theory studies systems and properties of the latter type. He refers to this as the "fallacy of the misplaced concreteness". His scheme was to frame a rational, general understanding of phenomena, derived from our reality. Sven Erik Jorgensen , an ecologist , states both theoretical and practical arguments for a holistic method in certain topics of science, especially ecology. He argues that many systems are so complex that it will not ever be possible to describe all their details. Making an analogy to the Heisenberg uncertainty principle in physics, he argues that many interesting and relevant ecological phenomena cannot be replicated in laboratory conditions, and thus cannot be measured or observed without influencing and changing the system in some way. He also indicates the importance of interconnectedness in biological systems. His opinion is that science can only progress by outlining what questions are unanswerable and by using models that do not attempt to explain everything in terms of smaller hierarchical levels of organization, but instead model them on the scale of the system itself, taking into account some but not all factors from levels both higher and lower in the hierarchy. For this theory, knowledge is seen as the construction of successful mental models of the exterior world, rather than the accumulation of independent "nuggets of truth". For example, advocates of this idea claim that: The linear deterministic approach to nature and technology promoted a fragmented perception of reality, and a loss of the ability to foresee, to adequately evaluate, in all their complexity, global crises in ecology, civilization and education. This usage is popular amongst some ecological activists: There is a need now to move away from scientism and the ideology of cause-and-effect determinism toward a radical empiricism , such as William James proposed, as an epistemology of science. The scientific method only acknowledges monophasic consciousness. The method is a specialized system that emphasizes studying small and distinctive parts in isolation, which results in fragmented knowledge.

2: Christian philosophy – METAPHYSICS with Dr. Tadie

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The concepts of "science" and "religion" are a recent invention: Furthermore, the phrase "religion and science" or "science and religion" emerged in the 19th century, not before, due to the reification of both concepts. It was in the 17th century that the concept of "religion" received its modern shape despite the fact that ancient texts like the Bible, the Quran, and other sacred texts did not have a concept of religion in the original languages and neither did the people or the cultures in which these sacred texts were written. Throughout classical South Asia, the study of law consisted of concepts such as penance through piety and ceremonial as well as practical traditions. Medieval Japan at first had a similar union between "imperial law" and universal or "Buddha law", but these later became independent sources of power. Christianity accepted reason within the ambit of faith. In Christendom, reason was considered subordinate to revelation, which contained the ultimate truth and this truth could not be challenged. Even though the medieval Christian had the urge to use their reason, they had little on which to exercise it. In medieval universities, the faculty for natural philosophy and theology were separate, and discussions pertaining to theological issues were often not allowed to be undertaken by the faculty of philosophy. It was an independent field, separated from theology, which enjoyed a good deal of intellectual freedom as long as it was restricted to the natural world. In general, there was religious support for natural science by the late Middle Ages and a recognition that it was an important element of learning. With significant developments taking place in science, mathematics, medicine and philosophy, the relationship between science and religion became one of curiosity and questioning. Renaissance humanism looked to classical Greek and Roman texts to change contemporary thought, allowing for a new mindset after the Middle Ages. Renaissance humanism was an "ethical theory and practice that emphasized reason, scientific inquiry and human fulfillment in the natural world," said Abernethy. With the sheer success of science and the steady advance of rationalism, the individual scientist gained prestige. This allowed more people to read and learn from the scripture, leading to the Evangelical movement. The people who spread this message, concentrated more on individual agency rather than the structures of the Church. It teaches people to be satisfied with trivial, supernatural non-explanations and blinds them to the wonderful real explanations that we have within our grasp. It teaches them to accept authority, revelation and faith instead of always insisting on evidence. Because of this both are incompatible as currently practiced and the debate of compatibility or incompatibility will be eternal. Carroll, since religion makes claims that are not compatible with science, such as supernatural events, therefore both are incompatible. According to Dawkins, religion "subverts science and saps the intellect". Ellis, Kenneth R. Miller, Katharine Hayhoe, George Coyne and Simon Conway Morris argue for compatibility since they do not agree that science is incompatible with religion and vice versa. They argue that science provides many opportunities to look for and find God in nature and to reflect on their beliefs. What he finds particularly odd and unjustified is in how atheists often come to invoke scientific authority on their non-scientific philosophical conclusions like there being no point or no meaning to the universe as the only viable option when the scientific method and science never have had any way of addressing questions of meaning or God in the first place. Furthermore, he notes that since evolution made the brain and since the brain can handle both religion and science, there is no natural incompatibility between the concepts at the biological level. He argues that leaders in science sometimes trump older scientific baggage and that leaders in theology do the same, so once theological intellectuals are taken into account, people who represent extreme positions like Ken Ham and Eugenie Scott will become irrelevant. It was in the 19th century that relationship between science and religion became an actual formal topic of discourse, while before this no one had pitted science against religion or vice versa, though occasional complex interactions had been expressed before the 19th century. If Galileo and the Scopes trial come to mind as examples of conflict, they were the exceptions

rather than the rule. Galileo was found "vehemently suspect of heresy", namely of having held the opinions that the Sun lies motionless at the center of the universe, that the Earth is not at its centre and moves. He was required to "abjure, curse and detest" those opinions. The Church had merely sided with the scientific consensus of the time. Only the latter was fulfilled by Galileo. Although the preface of his book claims that the character is named after a famous Aristotelian philosopher Simplicius in Latin, Simplicio in Italian, the name "Simplicio" in Italian also has the connotation of "simpleton". Most historians agree Galileo did not act out of malice and felt blindsided by the reaction to his book. Galileo had alienated one of his biggest and most powerful supporters, the Pope, and was called to Rome to defend his writings. Grayling, still believes there is competition between science and religions and point to the origin of the universe, the nature of human beings and the possibility of miracles [65] Independence[edit] A modern view, described by Stephen Jay Gould as "non-overlapping magisteria" NOMA, is that science and religion deal with fundamentally separate aspects of human experience and so, when each stays within its own domain, they co-exist peacefully. Stace viewed independence from the perspective of the philosophy of religion. Stace felt that science and religion, when each is viewed in its own domain, are both consistent and complete. In science, explanations must be based on evidence drawn from examining the natural world. Scientifically based observations or experiments that conflict with an explanation eventually must lead to modification or even abandonment of that explanation. Religious faith, in contrast, does not depend on empirical evidence, is not necessarily modified in the face of conflicting evidence, and typically involves supernatural forces or entities. Because they are not a part of nature, supernatural entities cannot be investigated by science. In this sense, science and religion are separate and address aspects of human understanding in different ways. Attempts to put science and religion against each other create controversy where none needs to exist. He views science as descriptive and religion as prescriptive. He stated that if science and mathematics concentrate on what the world ought to be, in the way that religion does, it may lead to improperly ascribing properties to the natural world as happened among the followers of Pythagoras in the sixth century B. Habgood also stated that he believed that the reverse situation, where religion attempts to be descriptive, can also lead to inappropriately assigning properties to the natural world. A notable example is the now defunct belief in the Ptolemaic geocentric planetary model that held sway until changes in scientific and religious thinking were brought about by Galileo and proponents of his views. Kuhn asserted that science is made up of paradigms that arise from cultural traditions, which is similar to the secular perspective on religion. Polanyi further asserted that all knowledge is personal and therefore the scientist must be performing a very personal if not necessarily subjective role when doing science. Coulson and Harold K. Schilling, both claimed that "the methods of science and religion have much in common. Dialogue[edit] Clerks studying astronomy and geometry France, early 15th century. The religion and science community consists of those scholars who involve themselves with what has been called the "religion-and-science dialogue" or the "religion-and-science field. Journals addressing the relationship between science and religion include Theology and Science and Zygon. Eugenie Scott has written that the "science and religion" movement is, overall, composed mainly of theists who have a healthy respect for science and may be beneficial to the public understanding of science. She contends that the "Christian scholarship" movement is not a problem for science, but that the "Theistic science" movement, which proposes abandoning methodological materialism, does cause problems in understanding of the nature of science. This annual series continues and has included William James, John Dewey, Carl Sagan, and many other professors from various fields. Science, Religion, and Naturalism, heavily contests the linkage of naturalism with science, as conceived by Richard Dawkins, Daniel Dennett and like-minded thinkers; while Daniel Dennett thinks that Plantinga stretches science to an unacceptable extent. Scientific and theological perspectives often coexist peacefully. Christians and some non-Christian religions have historically integrated well with scientific ideas, as in the ancient Egyptian technological mastery applied to monotheistic ends, the flourishing of logic and mathematics under Hinduism and Buddhism, and the scientific advances made by Muslim scholars during the Ottoman empire. Even many 19th-century Christian communities welcomed scientists who claimed that science was not at all concerned with discovering the ultimate nature of reality. Principe, the Johns Hopkins University Drew Professor of the Humanities, from a historical perspective this

points out that much of the current-day clashes occur between limited extremists—both religious and scientific fundamentalists—over a very few topics, and that the movement of ideas back and forth between scientific and theological thought has been more usual. He also admonished that true religion must conform to the conclusions of science. Buddhism and science Buddhism and science have been regarded as compatible by numerous authors. For example, Buddhism encourages the impartial investigation of nature an activity referred to as Dhamma-Vicaya in the Pali Canon—the principal object of study being oneself. Buddhism and science both show a strong emphasis on causality. In his book *The Universe in a Single Atom* he wrote, "My confidence in venturing into science lies in my basic belief that as in science, so in Buddhism, understanding the nature of reality is pursued by means of critical investigation. Christianity and science Science and Religion are portrayed to be in harmony in the Tiffany window Education Francis Collins, a scientist who happens to be a Christian, is the current director of the National Institutes of Health. Among early Christian teachers, Tertullian c. These ideas were significantly countered by later findings of universal patterns of biological cooperation. According to John Habgood, all man really knows here is that the universe seems to be a mix of good and evil, beauty and pain, and that suffering may somehow be part of the process of creation. Habgood holds that Christians should not be surprised that suffering may be used creatively by God, given their faith in the symbol of the Cross. The "Handmaiden" tradition, which saw secular studies of the universe as a very important and helpful part of arriving at a better understanding of scripture, was adopted throughout Christian history from early on. Heilbron, [99] Alistair Cameron Crombie, David Lindberg, [] Edward Grant, Thomas Goldstein, [] and Ted Davis have reviewed the popular notion that medieval Christianity was a negative influence in the development of civilization and science. In their views, not only did the monks save and cultivate the remnants of ancient civilization during the barbarian invasions, but the medieval church promoted learning and science through its sponsorship of many universities which, under its leadership, grew rapidly in Europe in the 11th and 12th centuries, St. He was not unlike other medieval theologians who sought out reason in the effort to defend his faith. Lindberg states that the widespread popular belief that the Middle Ages was a time of ignorance and superstition due to the Christian church is a "caricature". According to Lindberg, while there are some portions of the classical tradition which suggest this view, these were exceptional cases. It was common to tolerate and encourage critical thinking about the nature of the world. The relation between Christianity and science is complex and cannot be simplified to either harmony or conflict, according to Lindberg. There was no warfare between science and the church. A degree of concord between science and religion can be seen in religious belief and empirical science. The belief that God created the world and therefore humans, can lead to the view that he arranged for humans to know the world. This is underwritten by the doctrine of *imago dei*. In the words of Thomas Aquinas, "Since human beings are said to be in the image of God in virtue of their having a nature that includes an intellect, such a nature is most in the image of God in virtue of being most able to imitate God". As science advanced, acceptance of a literal version of the Bible became "increasingly untenable" and some in that period presented ways of interpreting scripture according to its spirit on its authority and truth. Later that year, a similar law was passed in Mississippi, and likewise, Arkansas in In, these "anti-monkey" laws were struck down by the Supreme Court of the United States as unconstitutional, "because they established a religious doctrine violating both the First and Fourth Amendments to the Constitution. In, the United States Supreme Court ruled that creationism is religion, not science, and cannot be advocated in public school classrooms. It includes a range of beliefs, including views described as evolutionary creationism, which accepts some findings of modern science but also upholds classical religious teachings about God and creation in Christian context. Bowler argues that in contrast to the conflicts between science and religion in the U. These attempts at reconciliation fell apart in the s due to increased social tensions, moves towards neo-orthodox theology and the acceptance of the modern evolutionary synthesis.

3: Currents in Catholic Thought: Creation without Causality

Geach's (B)-type causal propositions - i.e. propositions asserting efficient causality, of the general form 'x brought it about that p (is true of y)', where both x and y are agents.

Geach There are various phenomena that believers in the existence of God can appeal to to support the claim that God exists. One can look to the beginning of the universe, the design of the universe, to our moral experience, to evidence in support of miracles, and religious experience to ground belief that God does exist. One phenomenon that is sometimes neglected in the development of theistic arguments is the existence of rational thought. Does our very thinking provide evidence that the universe is more likely to be the kind of place that theists say it is than the kind of place that atheists say it is. The argument I will be presenting attempts to answer that question in the affirmative. This argument is often advanced against materialism or determinism, and as such it has Kantian[1] roots. However, it was developed as an argument for accepting theism as opposed to naturalism in the last century by the British Prime Minister Arthur Balfour[2] and in the 1950s by C. I. Lewis. It was this line of argument that was criticized by Elizabeth Anscombe[4], and as a result Lewis revised his argument in the second edition of his book, *Miracles*. Contemporary philosophers who have employed the argument against physical determinism include James Jordan[5] and William Hasker[6], and those who have turned it into an argument for theism include Richard Purtill[7] and J. I. Hume. I will present a model of the atheist universe which I will call mechanistic materialism. Although worldviews other than mechanistic materialism are compatible with atheism, mechanistic materialism seems to be the worldview held by most atheists. So if I can show that the existence of reason makes sense in a theistic universe but not in a mechanistic materialist universe, I will have given some good reasons for preferring theism to atheism. If an atheist wishes to propose a form of atheism that differs from mechanistic materialism, I would be happy to discuss that worldview as well. According to theism, the universe is a rational place because it is the creation of a rational being, namely God. Reason is, so to speak, on the very ground floor of reality. Given that God creates creatures, it is at least possible that God might wish to provide those creatures with the some measure of the rationality which God himself possesses. If someone in a theistic universe who had a spiritual as well as a physical nature were to reason were to reason to a conclusion logically, it might very well be that the person reached the logical conclusion because the conclusion follows logically from the premises, and not because the laws of physics mandated that the physical particles in the brain move to such and such places. Now let us consider the universe from the point of view of mechanistic materialism. The universe may have begun with a Big Bang, but what results from that Big Bang are material substances of various kinds. And material substances go where they go, not because it would be a good idea to go there, but because such motion is mandated by the laws of physics. On the mechanistic view of the world, material particles can, through evolution, organize themselves into complicated systems that work together to further the survival of the organism and the species. That is, your eye might be structured, as a result of centuries of evolution, in such a way that it serves the purpose of your seeing. But the particles that make up your eye are just as mechanistically determined as the particles of a rock falling down a mountain. Perhaps our brains are structured in such a way that the activity we call rational inference will be performed, and that this capacity contributes to our survival individually and collectively. But the description of this activity as rational inference is not the description of this activity on the most basic level of analysis. The most basic level of analysis is that of physics, which makes no reference to purposes or logic whatsoever. Daniel Dennett presents the commitment to mechanistic explanations as follows: Psychology of course must not be question-begging. It must not explain intelligence in terms of intelligence, for, instance by assigning responsibility for the existence of intelligence to the munificence of an intelligent creator, or by putting clever homunculi at the control panels of the nervous system. If that were the best psychology could do, then psychology could not do the job assigned to it. One, causation within the physical order is mechanistic, that is, non-purposive. Two, the physical order is closed, that is, nothing apart from the physical order can cause anything to happen within the physical order. Third, all states supervene on physical states. By this I mean that given the state of the

physical, there is only one way that anything not physical biological, psychological, sociological, moral can be. Now, the question that I want to pose is whether reason is possible in a mechanistic universe. If you are arguing with an atheist, it is reasonable to expect that the atheist will present an argument of the following type: If God exists, then there can be no gratuitous evil. Probably, there is gratuitous evil. Therefore, probably, God does not exist. Presumably he hopes that some of you will be persuaded by this argument. But what does that mean? First of all, the atheist is expecting us to apprehend the content of the premises and the conclusion. He expects us to accept the premises as true and will no doubt provide arguments as to why we should accept them. Then he expects us to notice that, by logical law, if you accept premises 1 and 2, you must accept premise 3. So in order for rational argument to meaningfully proceed one must presume that Sentences can be meaningful and are not just a series of marks. Human beings can apprehend the propositional content of written sentences. Human beings can be in the condition of either accepting, rejecting, or suspending belief concerning propositions. Human beings are capable of apprehending logical laws. The state of accepting the truth of a proposition can play a causal role in producing other beliefs, and that propositional content is relevant to the playing of this causal role. The apprehension of logical laws plays a causal role in the acceptance of the conclusion of an argument as true. Persons exist throughout the moments of time required for a rational inference to be performed. In short, what the advocate of the argument from evil, or indeed any argument in favor of atheism, hopes that we will do is accept the argument in virtue of its legitimacy as an argument. This involves a lot of assumptions about what human beings are like. It follows from this that anyone who hopes to defend atheism, naturalism, or materialism by argument needs to assure us that an atheist, naturalist, or materialist universe can house within itself the necessary conditions of logical inference. If she cannot do this, then we might say that these worldviews refute themselves insofar as they are presented, not merely as bald assertions, but as reasoned conclusions of logical arguments. Suppose I tried to argue for the claim that no one is ever persuaded by an argument. If I make my case and persuade you that this is true, then, of course, my position cannot be true. This shows that we can see that something is wrong with this kind of a position. The simplest way to generate this kind of argument against materialism is to say that since all thoughts are determined apart from pure quantum chance by the nonpurposive motion of atoms in the brain, it follows that such a process cannot be a rational inference. But such an argument would be, of course, rather too simple. As Anscombe pointed out in response to C. But of course, many explanations for the same event can be compatible with one another. We know from science that the same process can be given distinct explanations depending on the level at which we are analyzing it. Physics looks at subatomic particles, while biology looks at something as an entire system. If I were to punch someone in the mouth, one could give an explanation for this punching in terms of subatomic particles, biochemistry, or gross anatomy. And it might be that the punch could also be explained in psychological terms, and sociologists could come along and tell me that members of such and such a social group are more likely to engage in this kind of aggressive behavior under such and such circumstances. These levels of explanation involve purpose, however, and the compatibility of mechanism and purpose is just what is at issue here. But what is clear enough is that different explanations, at different levels, can be given for one and the same causal transaction. So most rebuttals to the argument from reason make the claim that explanation of a mental act of rational inference in terms of particle physics that makes no reference to reasons, and the explanation of that same act in terms of propositional attitudes, intentionality, truth, and laws of logic, are compatible with one another. Given a proper relationship between the explanation given at the physical level, the explanation at the mental level can obtain also, and one needs no more to choose between a mental and a physical explanation than one needs to choose between a biological and a physical explanation. Let us say we have an explanation, at the level of particle physics, for a round peg going into a round hole. In this case, the explanation in terms of physics fails to make mention of pegs or holes, but the physical structure of the peg and the hole, as well as the force putting the peg into the hole, is what makes the causal transaction possible. But any such peg or hole would have to satisfy a certain structural specification to play a role in a transaction described thus, in particular, it would have to be round. Another example would be the webbed feet of a duck. The natural webbed feet of a duck will permit the duck to move in the water as well as on land, but perhaps veterinary medicine might be able to provide ducks whose

webbed feet have been injured or destroyed with artificial webbing that is molecularly very different from their natural webbing. Nevertheless even though its microstructure is different from natural webbing, its macrostructure is similar, and it is the macrostructure that enables it to do its job. Putting steel in place of webbing will result in the duck not being able to function in water as effectively as they currently do. We might call this kind of explanatory compatibility structural compatibility. That is, even though the upper level explanation uses terms which are not found in the lower-level explanations, the structure of lower-level items guarantees that the upper-level explanation will obtain. So, for example, one can describe each brick of a wall without mentioning a wall at all, we know very well that, given the position of the bricks, the wall must exist. Where there is structural compatibility, an ideal scientist, looking at large-scale physical patterns, could know what higher-level compatible explanations could be given. But explanatory compatibility can be of a different type entirely. Jerry Fodor has argued that monetary exchanges cannot plausibly be analyzed in terms of particle physics, nevertheless no one is inclined to suppose that there is anything nonphysical about money. Presenting maroon and gold slips of paper with the pictures of Arizona State University football players will not produce this result, even at the concession stands at Sun Devil Stadium. The structure of money makes no difference whatsoever, what makes a difference is its relation to a background of mental states. What that means is that economic explanation is compatible with physicalism just in case mental explanation is, and if not then not. As Geoffrey Madell puts it: Given our understanding of human interests and wants, we can understand how those wants can be furthered by the institution of money, by the business of endowing a range of very different items with the same conventional significance. But our understanding of this presupposes the background of human psychology. So contrary to Fodor, there may be something nonphysical about money, if it turns out that our convention-making capability is something nonphysical. So, although this example is often offered as an example of an ontologically innocuous instance of irreducibility, it is nothing of the sort. We might call the type of explanatory compatibility we are talking about here conventional compatibility. But conventional compatibility between mechanism and reason is not going to help us solve the problem of whether reason is possible in a mechanistic universe, because it leaves open the question of how the convention-maker can be rational in a mechanistic universe. Computers are often offered as clear and decisive cases where physical and mental explanations can be offered for the activities of undeniably physical systems. But computers are clear cases of conventional compatibility. But the computer has the characteristics it does because reasoners built it to model their own rational thought patterns. So the computer is not a clear example of a system for which the total causal story is clearly mechanistic. As William Hasker points out Computers function as they do because they have been constructed by human being endowed with rational insight. A computer, in other words, is merely an extension of the rationality of its designers and users; it is no more an independent source of rational thought than a television set is an independent source of news and entertainment.

4: God and the soul (eBook,) [www.enganchecubano.com]

The Creation The Information The Peter Geach Edmund Gettier The turning point at which recent physics has arrived with respect to the question of causality.

Causality in Contemporary Physics, from Physical Reality, ed. The power of imagination is so limited by the intuitive conditions of gross perceptual experience that it can hardly by itself progress a step beyond them. It is only by aid of the strict discipline of more refined scientific experience that our thought can transcend its habitual channels. The most colourful fairyland of the Thousand and One Nights is created by a slight rearrangement of the familiar material of everyday life. And upon reflection, when one examines them with more precision, one finds the same to be true of the boldest and most profound philosophical systems: If for the poet it was creation by aid of intuitive pictures, so for the philosopher it is construction by more abstract yet still familiar concepts, from which by apparently more transparent principles of combination new structures are formed. The physicist, too, at first proceeds in much the same way in the construction of hypotheses. This is particularly indicated by the tenacity of the belief, held for many centuries by the physicist, that to explain nature a copy of its processes in models perceptible to the senses is necessary. Thus, for instance, he repeatedly attributed characteristics of visible, tangible substances to the ether without the slightest reason for doing so. Only when observed facts either suggest or necessitate his use of the new systems of concepts does the physicist realise the new possibilities and break himself free from his former habits of thought; but then he readily and with the greatest ease makes the jump to, say, Riemannian space or to Einsteinian time, to concepts so daring and profound that neither the imagination of the poet nor the intellect of the philosopher could have been able to anticipate them. The turning point at which recent physics has arrived with respect to the question of causality could likewise not have been foreseen. Although there has been so much philosophising about determinism and indeterminism, about the content, validity, and mode of testing of the principle of causality, no one thought of precisely that possibility leading in quantum physics to the key that allows us a view of the real nature of the causal order. Only in retrospect do we realise how the new ideas differ from the old, and we are perhaps a little amazed that so far we have always missed the point. Now, however, after the significance of the concept of quantum theories has been demonstrated by the extraordinary results of its application, and we have had some years to accustom ourselves to the new ideas, it should not be premature to attempt to arrive at philosophical clarity as to the meaning and scope of the ideas that contemporary physics contributes to the problem of causality. First it is necessary to determine what the scientist actually means when he speaks of "causality. Obviously, wherever he supposes a "dependence" between certain events. Nowadays it is self-evident that only events and not "things" come into question as elements of a causal relationship, since physics forms the four dimensional reality from events, and considers "things," three dimensional bodies, as mere abstractions. But what does "dependence" mean? In science, in any case, it is always expressed by a law; causality is, accordingly, nothing but another word for the existence of a law. The content of the principle of causality then clearly lies in the assertion that everything in the world occurs according to laws; it is indifferent whether we affirm the validity of the principle of causality or of determinism. In order to formulate the principle of causality or the deterministic thesis, we must first have defined what is meant by a law of nature or by mutual "dependence" of natural events. For only when we know this are we able to understand the meaning of determinism, which states that every event is a member of a causal relation, that every process is wholly dependent upon other processes. We shall not discuss whether the attempt to make a statement about "all" natural processes could lead to logical difficulties. Thus in any event we distinguish the question of the meaning of the word "causality" or "natural law" from the question of the validity of the principle of causality or the law of causality, and we concern ourselves at the beginning with the first question only. The distinction we thus make coincides with that made by H. Reichenbach at the beginning of his essay "Die Kausalstruktur der Welt. The question then concerns the content of the concept of causality. What do the words "if&€"then," indicating causal relationship, mean in the statement "if A then B? We note already here that, of course, in a sequence only a finite number of values can be measured, that,

therefore, experience affords only a discrete manifold of observed magnitudes, and further, that every value is conceived as subject to a certain inexactitude. Assuming that a large number of such observed magnitudes are given, we then ask quite generally: How does such a number of values have to be constituted so that we may say that it represents a law-like sequence, that there is a causal relationship between the observed magnitudes? We may, to begin with, presuppose that the data already possesses a natural order, namely the spatio-temporal one; that is to say, each quantitative value relates to a definite position in space and time. It is of course true that only with the aid of causal considerations are we able to indicate the position of events in physical space-time, by passing from phenomenal space-time, which represents the natural order of our experiences, to the physical world. But this complication may be excluded in our considerations, which limit themselves entirely to the realm of the physical world. Furthermore, our considerations are based upon a most fundamental assumption which I here mention in passing only, since it has already been discussed in a previous work loc. It is the hypothesis that in nature there are certain "similarities," in the sense that different realms of nature are comparable to one another, so that we may say for instance: Comparability is then one of the presuppositions of measurability. It is not easy to give the real meaning of this assumption, but we need not concern ourselves with it since this last analysis is likewise irrelevant to our problem. According to these observations, our problem regarding the content of the concept of causality reduces itself to this: This characteristic can be nothing but an order, and indeed, since events extensive in space and time are already orderly, it must be a kind of intensive order. This order must be of the temporal sort, for, as is well known, we do not speak of causality in reference to spatial order popularly expressed by "simultaneous," coexistent events; the concept of activity finds no application there. Spatial regularities, if such there be, would be called "coexistence laws. Every order of events in time, of whatever kind, is to be regarded as a causal relationship. Only complete chaos, complete irregularity, is to be designated as an acausal occurrence, as pure chance; every trace of an order would mean dependence, therefore causality. I believe that this use of the word "causal" is closer to its everyday sense than when confined, as seems to be done by many natural philosophers, to such an order as we could designate by "complete causality"â€”by which phrase it appears that something like "complete determination" of the event in question is meant of course, we can express ourselves here in inexact terms only. If we should restrict the word to complete causality, we run the danger of finding no use at all for it in nature, while in some sense we do regard the existence of causality as a fact of experience. And there would be even less reason to place the boundary between law and chance at some other point. The only alternative that confronts us is thus: Causality and law are identical with order; irregularity and chance are identical with disorder. The result up to the present therefore seems to be: This definition becomes meaningful only when we know what is to be understood by "order," how it differs from chaos. A most puzzling problem! How are we to understand this? At first glance the answer does not seem very difficult. It appears that we need only make sure how physics actually represents laws of nature, in which form it describes the dependence of events. Now, this form is the mathematical function. The dependence of one event upon another is expressed by the fact that the values of apart of the magnitudes are represented as functions of the others. Every order of numbers is mathematically represented by a function; and so it appears as if the desired criterion of order, which differentiates it from disorder, is expressibility by a function. But as soon as the idea of the identity of function and law is expressed, we see that it cannot possibly be correct. For, as is well-known, whatever be the distribution of given magnitudes, functions may always be found that represent just that distribution with any degree of accuracy; and this means that every possible distribution of magnitudes, every conceivable series of values is to be considered as an order. There would be no chaos. Thus we do not in this way successfully distinguish causality from chance, order from disorder, or succeed in defining rule and law in this manner. As was shown also in our previous considerations, there seems to remain only the alternative of imposing certain requirements on the functions that describe the observed series of values, and by means of them to determine the concept of order. We should then have to say: Thereby we find ourselves in a rather hopeless situation, for it is clear that in this way arbitrariness is given free rein, and a distinction between law and chance resting upon such an arbitrary basis could never be satisfactory. It could be so only if a fundamental and sharp distinction in the structure of the functions could be ascertained, which at the same time possessed such

definite empirical possibilities of application that everyone would immediately recognise them as the correct formulation of the concepts of regularity and irregularity as they are applied in science. Here there appear simultaneously two ways, both of which men have tried to adopt. The first was already used by Maxwell to define causality. It consists of the following stipulation: This requirement is equivalent to the notion popularly expressed in the phrase: In fact it means that a process that takes place anywhere and any time in a definite manner will take place in exactly the same manner in every other place and time, under the same circumstances. In other words, the rule states the universal validity of the relationship represented. Universal validity, however, is, as has been generally acknowledged, exactly that which in laws of nature has been designated by the ambiguous term "necessity," so that it appears as if the essential nature of the causal relation had been correctly hit upon by this stipulation. The concept of law in physics is undoubtedly such that this requirement is always fulfilled. Actually no investigator thinks of formulating laws of nature that refer explicitly to definite positions and moments in the universe. If space and time occurred explicitly in the physical equations, they would have quite a different significance from the one they actually have in our world. The relativity of space and time, fundamental to our world-view, would be denied, and time and space could no longer assume the peculiar role of "forms" of occurrence which they have in our cosmos. We should therefore be free to maintain the Maxwellian condition of causality — would it, however, be a necessary condition? We shall hardly be allowed to say that, for surely a world is conceivable in which all events would have to be expressed in formulas in which space and time appear explicitly, without our denying that these formulas represent true laws and that this world is completely orderly. So far as I can see, it would be conceivable, for instance, that uniform measurements of the elementary quantum of electricity electric charge would give values for these magnitudes that would fluctuate about 5 per cent in seven hours and then again in seven hours, and then ten hours, without our being able to find the slightest "reason" for it. And besides that, perhaps still another variation might appear for which we would make an absolute change of position of the earth in space responsible. In this case then the Maxwellian condition would not be fulfilled, but we would surely not find the world to be disorderly and we would formulate its regularity and be able to make predictions by means of it. We shall therefore be inclined to the view that the Maxwellian definition is too limited, and we shall ask ourselves what the criterion of law would be in the hypothetical case we have discussed. Now, the decisive factor of the hypothetical case seems to be that we could so easily consider the influence of space and time, that they enter into the formulas in such a simple manner. If, in our example, the electric charge were to behave differently every week and every hour, or form a completely "irregular curve," we could of course afterwards represent its dependence upon time by a function, but this function would be very complicated. We would then say that no law exists but that the variations of magnitudes are governed by "chance. But this function would be very complicated, not periodic, not readily grasped, and it is for this reason only that we say that no regularity exists. But as soon as any simple statement regarding the jumps is formulable — if, for instance, the time intervals become increasingly larger — this would at once appear to us as a regularity, even though time would explicitly enter into the formula. Accordingly, it appears as if we speak of order, law, causality when the course of events is described by functions of simple form; while complexity of the formula is the criterion for disorder, lawlessness, chance. And so one very easily arrives at the point of defining causality by the simplicity of the descriptive functions. Simplicity is, however, a half pragmatic, half aesthetic concept. We may therefore call this definition aesthetic. Also, without being able to state what is here meant by "simplicity," we must yet affirm the fact that every investigator who has succeeded in representing a series of observations in a simple formula for instance, linear, quadratic, exponential function is quite sure of having discovered a law, and so the aesthetic definition, as well as the Maxwellian one, obviously discloses a characteristic of causality that is considered a decisive criterion. Which of the two attempts at formulating the concept of law shall we accept? Or shall we formulate a new definition by combining both? The "aesthetic" definition has in its favour that it is also applicable to the above considered cases, to which the other one is not, and that also undoubtedly in the prosecution of science "simplicity" of functions is used as a criterion of order and law. Against it, however, is the fact that simplicity is clearly a relative and indefinite concept, so that a strict definition of causality is not obtained, and law and chance

cannot be sufficiently distinguished. It might indeed be possible that we have to take this last idea into account, and that a "law of nature" is actually not something so precisely conceivable as one might at first think; however, such a point of view will be accepted only when one is sure that no other possibility remains. It is certain that the concept of simplicity can only be fixed by a convention that must always remain arbitrary.

5: Relationship between religion and science - Wikipedia

The discussion is essentially Thomistic, and addresses the serious matters of the metaphysical problem, the search for God on the horizon of being, and 'creative causality.' His foil for the lecture is the thesis of the 'new atheists,' that God is a delusion without evidence on the plane of reality.

Socrates expresses confidence in the existence of separate forms of justice, beauty, goodness, and every form of that sort, uncertainty about the existence of separate forms of humanity, fire, and water, and outright skepticism about the existence of separate forms for hair, mud, and dirt. It is unclear why Socrates finds himself in doubt about the existence of forms for natural kinds such as humans and water and stuffs or mixtures such as hair and mud. After all, Plato alludes to a form of bee at *Meno* 72b–c, a form of shuttle at *Cratylus* d, and forms of bed and of table at *Republic* b. Although shuttles, tables, and beds are artifacts, and hence perhaps relevantly different from natural kinds, such as human beings and water, there seems no reason to think that humans differ from bees in regard to whether they have corresponding forms. However, it is difficult to understand why Plato would pen a conversation in which a character who embodies his own middle period theory would admit something he has no good reason to admit. One possibility see Gill , 22 is that Plato is alluding to the middle period thesis that only certain types of properties summon the understanding to think about forms. If forms were merely posited to explain the compresence of contrary properties in sensible things, then there would be no need to posit a form corresponding to properties such as water and dirt that have no contraries. Another option Rickless , 54–55; see also Miller , 46 is that Plato means us to recognize a tension between Self-Predication and Separation or Non-Identity in the theory of forms. On the one hand, the fact that justice is just, beauty beautiful, and goodness good does not suggest that justice, beauty, and goodness are concrete, sensible things. That is, Self-Predication gives us no reason to deny that justice, beauty, and goodness are separate forms, numerically distinct from sensible things. By contrast, if there are forms for human and mud, then Self-Predication requires that the human be a human being and the mud be muddy. It is difficult to see how human things and muddy things could be non-sensible. So Self-Predication gives us at least some reason to deny that there is a form for human and mud that is distinct from every sensible thing. According to the Pie Model, participants literally get a share of the forms of which they partake, in a way analogous to the way in which those who partake of a pie literally get a share of the pie. The Pie Model comes in two versions: What Parmenides goes on to argue is that the theory of forms is internally inconsistent on either version of the Pie Model. Suppose, first, that partaking conforms to the Whole Pie Model. Now imagine that there are at one time three sensible F things, A, B, and C, each separate from each of the others. If A, B, and C are in separate places, then Causality and the Whole Pie Model together require that one and the same form be, as a whole, in separate places at the same time. On some interpretations Meinwald , 13–14; Allen , ; Rickless , 57–58 , Plato thinks of the claim that a form is separate from itself as an absurdity in itself. On other interpretations Teloh , ; Miller , 48; Sayre , 76 , Plato does not treat this result as absurd in itself. Absurdity only arises when this result is combined with the further thought that nothing that is separate from itself could be a single thing. In this case, the same form would have to be three things, rather than one thing. For the claim that the relevant form is not one contradicts Oneness, the claim that every form is one. Socrates tries to avoid the relevant absurdity, however it is understood, by supposing that a form is like a day, in the following sense: However, it does not in fact make sense to suppose that a time-interval is in separate places at the same time Rickless , And it is not in fact true that the same packet of rays shines on the separate places bathed by the light of day; rather, different packets of rays shine on different places Panagiotou , Moreover, it makes little sense to suppose that Plato would introduce a way out of the dilemma he himself has constructed without explicitly alerting his readers to that fact. Suppose, then, the same three sensible F things—A, B, and C—in separate places at the same time. If the same absurdity generated from the Whole Pie Model is to be avoided, we must suppose that the part of the F that is in A is numerically distinct from the part of the F that is in B and from the part of the F that is in C, and also that the part of the F that is in B must be numerically distinct from the part of the F that is in C. Otherwise we would have the same

part of the F existing, as a whole, in separate places at the same time; and hence we would have something that is separate from itself. Thus the F must have numerically distinct parts, and must therefore be divided or, at least, divisible. Parmenides concludes from this that the F cannot be one, a conclusion that clearly contradicts Oneness. There Socrates insisted that he himself is one in being one among many even though he has many parts front and back, upper and lower, and so on. So Socrates does not suppose that it is true in general that a thing with parts cannot be one. Given that the property of being one and the property of being many are contraries, it follows from Purity-F and the claim that the F is many that the F cannot be one Rickless , 59â€”

The upshot of the Whole-Part Dilemma is that absurdity or inconsistency follows from the theory of forms on either of the two possible versions of the Pie Model conception of partaking. At the conclusion of the Whole-Part Dilemma, Parmenides extracts four more absurdities from the result of combining Causality with the Piece-of-Pie model: Thus, every F thing other than the F is F by getting a part of the F. Now let F be the property of being large. In that case, every large thing other than the large is large by getting a part of the large. So every large thing other than the large is large by getting something small. But this is absurd: No Causation by Contraries For any property F, nothing that is F could make something possess a property that is contrary to the property of being F. The result of combining Causality with the Piece-of-Pie Model entails that equal things other than the equal are equal by getting a part of the equal. Given that any part of X must be smaller than X see above , it follows that equal things other than the equal are equal by getting something that is smaller than the equal. So every equal thing other than the equal is equal by getting something unequal. But, again by No Causation by Contraries, this result is absurd: The result of combining Causality with the Piece-of-Pie Model entails that small things other than the small are small by getting a part of the small. This result entails that if there are any small things as indeed there are , then the small must have parts. Consequently, the small must be large. But, by Self-Predication, the small is small. So the small is both large and small. But this result contradicts Purity-F, according to which the small cannot have contrary properties, and hence cannot be both large and small. As before, the result of combining Causality with the Piece-of-Pie Model entails that small things other than the small are small by getting a part of the small. It follows that small things other than the small are small by having a part of the small added to them. These four quick arguments show that the result of combining Causality with the Piece-of-Pie Model does not sit well with other aspects of the theory of forms, in particular No Causation by Contraries 1 and 2 , and the conjunction of Purity-F and Self-Predication 3. The moniker derives from Aristotle, who in various places e. Parmenides sets up the argument by pointing out that, according to the theory of forms, Oneness is supposed to follow from One-over-Many. But this is certainly not what a relevantly similar sentence expresses at Republic a2â€”6 and b7â€”11â€”see above. There is a vast literature on the Third Man argument, initiated by the groundbreaking analysis of the reasoning in Vlastos Most commentators agree that the reasoning relies on at least three principles: Allen , accepts that the reasoning relies on the claim that the large is largeâ€”an instance of Self-Predication, but denies that the argument, when generalized to forms other than the large, relies on Self-Predication. They also agree that the reasoning generates an infinite regress of forms of largeness, and that the argument could be generalized to generate an infinite regress of forms corresponding to any predicate. But commentators differ over why Plato takes the regress to be vicious or problematic, and what Plato would have recommended as a way of avoiding the absurdity generated by the reasoning. Parmenides generates the infinite regress as follows. Consider a plurality of large things, A, B, and C. By Self-Predication, L1 is large. So there is now a new plurality of large things, A, B, C, and L1. Hence L1 partakes of L2. At this point, Parmenides assumes something like the following Non-Identity assumption: Non-Identity No form is identical to anything that partakes of it. Notice that Non-Identity follows directly from Separation. Thus, there must be at least two forms of largeness, L1 and L2. But this is not all. By Self-Predication, L2 is large. Hence L1 and L2 both partake of L3. Thus, there must be at least three forms of largeness, L1, L2, and L3. Repetition of this reasoning, based on One-over-Many, Self-Predication, and Non-Identity, then generates an infinite hierarchy of forms of largeness, with each form partaking of every form that lies above it in the hierarchy. In what way does the existence of an infinite regress of forms represent a problem for the theory of forms? One answer to this question see Vlastos , , fn. On this view, the theory of forms includes the thesis that, for any property F,

the primary function of the F is to explain the F-ness of F things, and hence to make it possible for humans to apprehend and know things as F. But, so the story goes, Plato assumes that an infinite regress of forms of F-ness, each of which explains the F-ness of the forms of F-ness below it in the hierarchy, cannot explain the F-ness of the original plurality of F things: So it is unlikely that the epistemic reading of the Third Man is what Plato had in mind. Other scholars claim, quite correctly, that the existence of infinitely many forms indeed, the existence of so much as two forms corresponding to any predicate is inconsistent with Uniqueness. And, indeed, this result appears to be at least part of what the Third Man argument is designed to uncover. But Plato seems to be looking to establish more than this. For in the last sentence of the relevant passage, Parmenides announces that the argument shows that each form is no longer one, but infinitely many. Although most commentators gloss this comment as the claim that there is no longer one form per predicate, but rather infinitely many, this is not what the sentence actually says. What the sentence suggests is that the existence of infinitely many forms of largeness conflicts with Oneness. One way to make sense of this claim is by way of the following chain of reasoning. Thus, L1 partakes of infinitely many forms, L2 partakes of infinitely many forms, L3 partakes of infinitely many forms, and so on. Now there are passages in which Plato appears to assume that forms are as many as the predicates that can be truly applied to them see Philebus 14c8â€”d3, and Rickless , And if we assume that Parmenides is still working with the Piece-of-Pie model of partaking, then the fact that a form partakes of infinitely many forms entails that it has infinitely many parts, and hence is itself infinitely many. So from the existence of an infinite regress of forms and from what appear to be dialectically appropriate assumptions, it is possible to argue that each form in the hierarchy is infinitely many. Given that the property of being one and the property of being many are contraries, it then follows directly from Purity-F that each form in the hierarchy is not one. This interpretation explains why Parmenides announces at the end of the argument that each form is no longer one, but infinitely many see Rickless , 64â€” Many commentators think that the fundamental inconsistency revealed by the Third Man argument rests with the combination of One-over-Many, Self-Predication, and Non-Identity. For them, the Third Man requires that Plato give up at least one of these principles.

6: Metaphysics: Problems, Paradoxes, and Puzzles Solved?

Soft Causality is the causality we have in the physical world. It includes occasional quantum events, which are only probabilistic and statistical. This means that they are not strictly caused by prior events, although they may be causes of subsequent events.

Introduction To say that things are identical is to say that they are the same. However, they have more than one meaning. A distinction is customarily drawn between qualitative and numerical identity or sameness. Things with qualitative identity share properties, so things can be more or less qualitatively identical. Poodles and Great Danes are qualitatively identical because they share the property of being a dog, and such properties as go along with that, but two poodles will very likely have greater qualitative identity. Numerical identity requires absolute, or total, qualitative identity, and can only hold between a thing and itself. Its name implies the controversial view that it is the only identity relation in accordance with which we can properly count or number things: Numerical identity is our topic. As noted, it is at the centre of several philosophical debates, but to many seems in itself wholly unproblematic, for it is just that relation everything has to itself and nothing else – and what could be less problematic than that? Moreover, if the notion is problematic it is difficult to see how the problems could be resolved, since it is difficult to see how a thinker could have the conceptual resources with which to explain the concept of identity whilst lacking that concept itself. The basicness of the notion of identity in our conceptual scheme, and, in particular, the link between identity and quantification has been particularly noted by Quine. The Logic of Identity Numerical identity can be characterised, as just done, as the relation everything has to itself and to nothing else. It can be defined, equally circularly because quantifying over all equivalence relations including itself, as the smallest equivalence relation an equivalence relation being one which is reflexive, symmetric and transitive, for example, having the same shape. Other circular definitions are available. Usually it is defined as the equivalence relation or: Circularity is thus not avoided. It then becomes philosophically controversial. Thus it is debated whether a symmetrical universe is possible, e. This principle is trivially false. It is a necessary truth that 9 is greater than 7, it is not a necessary truth that the number of planets is greater than 7, although 9 is the number of planets. The explanation of the failure of the substitutivity principle can differ from case to case. Thus the names do not have the same referents in the identity statement and the predications. These formal properties ensure that, within any theory expressible by means of a fixed stock of one- or many-place predicates, quantifiers and truth-functional connectives, any two predicates which can be regarded as expressing identity i. Relative to another, richer, theory the same predicate, interpreted in the same way, may not be an I-predicate. If so it will not, and did not even in the poorer theory, express identity. Quine has suggested that when a predicate is an I-predicate in a theory only because the language in which the theory is expressed does not allow one to distinguish items between which it holds, one can reinterpret the sentences of the theory so that the I-predicate in the newly interpreted theory does express identity. Every sentence will have just the same truth-conditions under the new interpretation and the old, but the references of its subsentential parts will be different. Thus, Quine suggests, if one has a language in which one speaks of persons and in which persons of the same income are indistinguishable the predicates of the language may be reinterpreted so that the predicate which previously expressed having the same income comes now to express identity. The universe of discourse now consists of income groups, not people. The extensions of the monadic predicates are classes of income groups, and, in general, the extension of an n-place predicate is a class of n-member sequences of income groups. Quine But it remains that it is not guaranteed that a two-place predicate that is an I-predicate in the theory to which it belongs expresses identity. In fact, no condition can be stated in a first-order language for a predicate to express identity, rather than mere indiscernibility by the resources of the language. Identity is thus not first-order, but only second-order definable. For more details see the entry on relative identity, Deutsch, Dummett and, Hawthorne and Noonan. Geach maintains that since no criterion can be given by which a predicate expressing an I-predicate may be determined to express, not merely indiscernibility relative to the language to which it belongs, but also absolute indiscernibility, we should jettison the classical notion of

identity Let us say that an equivalence relation R is absolute if and only if, if x stands in it to y , there cannot be some other equivalence relation S , holding between anything and either x or y , but not holding between x and y . If an equivalence relation is not absolute it is relative. Classical identity is an absolute equivalence relation. This is the thesis he argues against Quine. It is the sortal relativity thesis that is the central issue between Geach and Wiggins and The crucial premiss of this argument is thus that sameness of truth-conditions entails sameness of ontological commitment. But this is not true. The ontological commitments of a theory according to Quine, whose notion this is are those entities that must lie within the domain of quantification of the theory if the theory is to be true; or, the entities the predicates of the theory have to be true of if the theory is to be true. A theory is not ontologically committed, we may say, to whatever has to be in the universe for it to be true, but only to whatever has to be in its universe for it to be true. Thus there is no argument from sameness of truth-conditions to sameness of ontological commitments. Because Geach is now making this stronger claim, the objection that his argument depends upon the incorrect assumption that sameness of truth-conditions entails sameness of ontological commitment is no longer relevant. In order to make out his case Geach has to establish just two points. And secondly, that the existence of absolute surmen is absurd. But in the end Geach fails to establish these two points. Quine would say that, for the fragment of English in question, the domain of the variables can be considered to consist of classes of men with the same surname and the predicates interpreted as holding of such classes. But Geach has no right to demand that this should be the case. Even so, this demand can be met. Thus, as Geach says, absolute surmen will be just some among men , It is merely that the answer will depend upon the particular interpretation that the language fragment has, in fact, been given. The most well known puzzle is that of the cat on the mat, which comes in two versions. The first version goes like this. Wiggins contains the first appearance of this version in present-day philosophical literature; an equivalent puzzle is that of Dion and Theon, see Burke Suppose a cat, Tibbles, is sitting on a mat. Tib is smaller than Tibbles so they are not identical. Tibbles and Tib will now coincide. If Tibbles is still a cat, it is hard to see by what criterion one could deny that Tib is a cat. Yet they are distinct individuals, since they have different histories. But there is just one cat on the mat. So they cannot be distinct cats. They must be the same cat, even though they are distinct individuals; and so identity under the sortal concept cat must be a relative identity relation. The second version presented in Geach , compare Unger goes as follows. Tibbles is sitting on the mat and is the only cat sitting on the mat. But Tibbles has at least 1, hairs. Then for any of our 1, hairs, say h_n , there is a proper part c_n of c which contains precisely all of c except that hair h_n ; and every such part c_n differs in a describable way both from any other such part say c_m , and from c as a whole. Moreover, fuzzy as the concept cat may be, it is clear that not only is c a cat, but also any part c_n is a cat: This version of the argument can be resisted by insisting that the concept of a cat is maximal, i. The first version may be resisted in a variety of ways. Some deny the existence of the tail-complement at all van Inwagen , Olson ; others deny that the tail-complement survives the amputation Burke Another possibility is to accept that both Tib and Tibbles are cats, but deny that they are distinct: On the other hand, no alternative solution to the puzzle of the cat on the mat stands out as clearly superior to the rest, or clearly superior to the sortal relativity thesis as a solution. Criteria of identity A notion that Geach deploys extensively, and which is also in common use by his opponents, is that of a criterion of identity, a standard by which identity is to be judged. This section will attempt to untangle some of the complexities this notion involves. The notion of a criterion of identity was introduced into philosophical terminology by Frege and strongly emphasised by Wittgenstein Exactly how it is to be interpreted and the extent of its applicability are still matters of debate. A considerable obstacle to understanding contemporary philosophical usage of the term, however, is that the notion does not seem to be a unitary one. In the case of abstract objects the case discussed by Frege the criterion of identity for F s is thought of as an equivalence relation holding between objects distinct from F s. Thus the criterion of identity for directions is parallelism of lines, that is, the direction of line a is identical with the direction of line b if and only if line a is parallel to line b . The criterion of identity for numbers is equinumerosity of concepts, that is, the number of A s is identical with the number of B s if and only if there are exactly as many A s as B s. The relation between the criterion of identity for F s and the criterion of application for the concept F the standard for the application of the concept

to an individual is then said by some Wright and Hale to be that to be an F is just to be something for which questions of identity and distinctness are to settled by appeal to the criterion of identity for Fs. In the case of concrete objects, however, things seem to stand differently. In this case the criterion of identity for Fs is not stated as a relation between entities distinct from Fs and the criterion of identity cannot plausibly be thought of as determining the criterion of application. In the case of persons, for example, a candidate criterion of diachronic identity is: A criterion of synchronic identity, by contrast, will typically specify how the parts of an F-thing existing at a time must be related, or how one F at a time is marked off from another. One way of bringing system into the discussion of criteria of identity is to make use of the distinction between one-level and two-level criteria of identity Williamson , Lowe The Fregean criteria of identity for directions and numbers are two-level. The objects for which the criterion is given are distinct from, and can be pictured as at a higher level than, the entities between which the relation specified holds. A two-level criterion for the Fs takes the form restricting ourselves to examples in which the criterial relation holds between objects: Hence, as emphasised by Lowe In general, a one-level criterion for objects of sort F takes the form: However, a more general application of the two-level notion is possible. How general this makes its application is a matter of controversy. In particular, if persisting things are thought of as composed of instantaneous temporal parts see discussion below , the problem of supplying a diachronic criterion of identity for persisting concrete objects can be regarded as the problem of providing a two-level criterion. But if persisting things are not thought of in this way then not all persisting things can be provided with two-level criteria. For example, it is quite plausible that the criterion of identity over time for persons should be thought of as given by a relation between bodies.

7: Reason - CS Lewis Society of California

The biblical account of Creation is the divinely revealed answer. Genesis offers not only a brief overview of what God did, but much more importantly it offers us answers to the nagging question why. Cause may be personal or impersonal.

It is true that, if you made a catalogue of all the things in the universe, God would not be listed, but he is certainly real, more real than any thing. He is, if you like, pure act, indeed, someone went as far as to say he is a verb rather than a noun. But what kind of reality does he have? One word that is attached to the reality of God is transcendent – he is like goodness and truth and life, only more so. That closeness is sometimes called immanence, though it is nothing like the windy imaginings of Hegel, who need not come into this conversation. It certainly fits in with his quite correct dismissal of scientism the fallacy that all things are explained by experimental science. So it is a statement that disproves itself. But how can a Christian apologist find evidence from the material world of the existence of God? A starting point is to ask, with reference to the universe, how is it all possible? How do you account for it? Why is there anything there? Shortt is right to hammer home the point that its existence cannot be accounted for by naturalistic explanations. Yet some scientific thinkers seem to think it quite reasonable to imagine the cosmos suddenly appearing out of nothing. That does not meet the demand to account for it. The strange kind of causality called creation – bringing things into being where there had been nothing before – is not performable by natural powers. Nor does it help the atheist trying to explain the existence of the universe for him to assert that it has always been there. That does not begin to explain it. Shortt has no room to go into arguments for the existence of God. Your rich uncle in Sydenham is not to be thought of as a cheque-signing machine, but to cash his cheque it must be shown to be his signature. God leaves his marks on creation. To me, its intelligibility is very suggestive. For believers, this is a vital fact: But that might be for another book.

8: God and the soul, (Book,) [www.enganchecubano.com]

It was David Hume's problem of defining causality that famously awakened Immanuel Kant from his "dogmatic slumbers." Kant called Hume's problem the crux metaphysicorum (Prolegomena to Any Future Metaphysics, Â§29).

Divine Providence Plan A. God, the divine artisan, freely and knowingly plans, orders and provides for all the effects that constitute His artifact, the created universe with its entire history, and executes His chosen plan by playing an active causal role sufficient to ensure its exact realization. Thus, whatever occurs is properly said to be specifically decreed by God. More exactly, each effect produced in the created universe is either specifically and knowingly intended by Him providentia approbationis or, in concession to creaturely defectiveness, specifically and knowingly permitted by Him providentia concessionis. This is an important one of the elements shared in common by both Dominicans and Jesuits in the 16th century De Auxiliis controversy. There are many other such elements, which I will enumerate below. Despite the fact that this conception of divine providence is clearly found in St. Thomas, is well established in Catholic doctrine close to de fide, I would say, and does not seem to have been disputed by either Lutherans or Calvinists in the 16th century, it is rejected by many contemporary Evangelical philosophers of religion and even by some prominent Catholics, including Peter Geach and as I read him Jacques Maritain. Of course, the watered-down, anthropomorphic replacement accounts of divine providence are not exactly nothing to write Rome about. This conception of providence entails that God has comprehensive knowledge of creation in general and, more specifically, comprehensive knowledge of future contingents. That is to say, God has comprehensive foreknowledge because He antecedently knows what He Himself is going to do and He knows what will ensue, given what He is going to do—“and His knowledge extends not only to necessary effects but also to contingent effects. Dominicans and Jesuits again agree on this much. Their dispute is over the details of exactly how all of this can be true. The doctrine of divine providence entails that God has comprehensive foreknowledge not only of absolute future contingents, which will in fact be actualized, but also of conditional future contingents, which describe what would take place under any given circumstances, even those that will never be actualized. The difference between the two groups is over just how God knows conditional future contingents, and this is directly related to their differences over freedom and divine causality, to be discussed below. Divine Governance Execution of the Plan A. It also includes as a crucial element and one that arguably follows from divine conservation the claim that every effect brought about by a created agent is also brought about immediately by God as an efficient cause, so that the creatures of the world depend radically on God not only for their esse but also for their agere. This is the so-called doctrine of divine general concurrence with secondary causes, and it is a causal means by which God executes His providential plan—“and, again, this is a point on which the 16th century Dominicans and Jesuits agree. Remember that this applies to all agents, whether they are acting naturally or freely. Here are five tenets which Dominicans and Jesuits hold in common; you might think of them as spelling out the metaphysical implications of St. Thomas's doctrine. God is a per se and immediate cause of any effect produced by a created agent. In producing such an effect, God and the created agent act by the very same cooperative action. Even though there is just a single action, God and the secondary agent act by different powers and within diverse orders of causality. More specifically, the secondary agent acts by its created or natural powers as a particular cause of the effect, whereas God, the First Agent, acts by His uncreated power as a general or universal cause of the effect. So certain features of the effect, e. In any given case the cooperative action of God and the secondary cause with respect to a given effect is such that the influence actually exercised by the one would not have existed at all in the absence of the influence exercised by the other. You will find each of these tenets, in more or less the same language, in the texts of St. Thomas. Indeed, they gave rise to a number of slogans commonly invoked by commentators on St. Thomas to describe the relation of the First Cause to created or secondary causes—“slogans that are more or less based on the analogy between secondary causality and ordinary instrumental causality: As we will see below, the Jesuits reject this assimilation of secondary causality to instrumental causality, in large measure because they are convinced that it is destructive of human free choice, though they think that it destroys the rightful limited autonomy of

non-rational natural causes as well. Still, out of respect for the tradition, they try to hang on to the slogans just listed. One last preliminary note before we turn to free choice. The middle years of the 20th century witnessed no shortage of commentators Bernard Lonergan the most preeminent among them who claimed that St. Thomas had in the 13th century already solved all the problems that the 16th century Dominicans and Jesuits argued so passionately about. Given the brilliance of the 16th century thinkers, this claim sounds a tad suspicious on the surface; and, indeed, a close perusal of the relevant 20th century works shows or so I say that it is just plain false. The fact is that St. Thomas never explicitly addressed certain key claims that became the focus of the De Auxiliis dispute. And though I have little doubt that he would side with the man whom I think of as his most illuminating commentator, viz. To my mind, the 16th century debate was a stunningly sophisticatedâ€”perhaps, in the eyes of some, too sophisticatedâ€”development on topics for which St. Thomas had established the general framework. The Heart of the Matter: Then, I claim, there is no substantial difference among, say, St. Some later Thomists, looking for something like a Leibnizian sufficient reason for each act of free choice, had indeed put in extra stuff and come up with what looks like a sort of intellectual determinismâ€”but not St. Thomas or the others mentioned here. Take my word for it. But this was certainly not the intent of those who coined the expression as a term of art for the two powers of will that St. Thomas calls freedom with respect to exercise and freedom with respect to specification. FI An agent A is free at time t in circumstances C just in case, with all the prerequisites for acting having been posited at t in C, A is able to act â€” that is, to will â€” and also able not to act freedom with respect to exercise and b able to will an object and also able to will some contrary object freedom with respect to specification. Metaphysical freedom is to be distinguished from what I will call moral freedom or moral autonomy. Moral freedom is as contentious a notion as metaphysical freedom is. In classical moral theory, moral freedom is the telos or end of metaphysical freedom and goes by names like freedom for excellence or moral self-possession or, with Socrates, freedom from enslavement to the passionsâ€”or, in the Gospels, freedom from sin. In modernist and post-modernist moral theories, on the other hand, moral freedom or autonomy takes on, shall we say, more disturbing connotations. See Chapter Two of Veritatis Splendor. With gratitude and utter enthusiasm, I recommend highly and without qualification get it? Thomas, to will an object in a situation of choice is, basically, to freely endorse one line of practical reasoning over another. But why this line of reasoning rather than that one? Now we can characterize the difference between the Dominicans and Jesuits on freedom. What follows is a rough characterization of the dialectic. The real thing is quite a bit more complex and subtle than I can capture in a brief presentation, but what follows will at least highlight the main moves: But God does not in this mode of causality act on the secondary agent itself. By way of a rough analogy, think of two guys lifting a refrigerator when neither of them can budge it on his own. They bring about the effect together, but without acting on one another. This is a better analogy than, say, someone using a hammer as an instrument to pound in a nail. After all, is your will a merely passive instrument like a hammer? Otherwise, the metaphysical freedom of created agents would be undermined, as it is on the Dominican account. How can He have certain knowledge of what the outcome will be? This knowledge is prevolitional, if you will, and Molina gives it a special name, middle knowledge. This is the only way to preserve true human freedom within the context of divine providence. The Dominicans, needless to say, demur. For an un-pre-moved agent would be, as it were, a self-starter and a first cause in its own right, and thus the first source of its own moral goodness, even in the order of grace. There is no hint of coercion or involuntariness. Thomas indicates, God determines not just the nature of created effects, but their modality as well. And in the cases in question, that means that He determines them to be free choices. But this is still compatible with the created will retaining its natural power not to act in that way. It still has this power, and it would exercise it if God pre-moved it to! So God is the first source of all goodness in the created will. Thomas said, and just like you Jesuits say. Picture that, or, better, try to picture that. Neither of the guys has sufficient power to do the job, whereas both God and the secondary agents have sufficient power within their own orders of causality. The Holy See would, the pope continued, resolve the issue at an opportune time. This opportune time has yet to arrive.

9: Identity (Stanford Encyclopedia of Philosophy)

God and the soul. [P T Geach] --Form and existence --What actually exists --Causality and creation --Praying for things to happen --On worshipping the right God.

Many people think Hume has proved something about causality. Surprisingly, people who think this hardly ever ask themselves what the logical form of causal propositions may be; and yet if someone alleges that a certain sort of conclusion cannot be reached by reasoning that uses premises of a given logical form, then he can make good his allegation only if he rigorously specifies this logical form. The traditional sort of causal proof referred to examples of causality this world, and conclude that there is a God who causes all these things. This feature raises difficulties. I cannot make any sense of this. Neither, I suspect, could Aquinas. The formal logic of causal propositions, which was studied a little in the Middle Ages, has made no progress since then; the interest of formal logicians have been so predominantly mathematical that they have quite neglected causal propositions, which are not needed in mathematical reasoning quite fascinatingâ€” there is no cause and effect in mathematics. I shall say something to a formal logic of causal propositions. Some people think there are necessary features of deductive proof which makes it useless for theology. Now this relation need not hold between P and Q when Q follows from P but not conversely; it is harder to know the truth that there is no greatest prime number than to know the truth of the premises from this theorem follows. But we need the same set of rules of inference whether the premises are empirical or mathematical. So even outside mathematics a conclusion is sometimes less easily known than the premises. If there were some technique by which the information given in the premises could be actually displayed as containing that given in the conclusion. However, new discoveries may falsify seemingly well-established assumptions; and it is now definitively proved for logic that there is no such effective procedure for exhibiting a conclusion as an excerpt from the premises. In syllogistic, as Aristotle already knew, we are only pulling out of the box what we first put into it. However, the matter admits of formal proof. In a valid syllogism the truth-condition for each premise and for the conclusion will consist in whether some complex general term applies within a certain universe of discourse. If the universe of discourse involved in the premises is the familiar universe of mutable things, no syllogistic manipulations can bring out a conclusion asserting the existence of something not belonging to that universeâ€”an immutable God this sounds like the same thing he was mentioning above. A Boolean function of predicates never gets us out of the universe of discourse of those predicates. The mechanism is of course analogy, and more specifically extrapolation. Such reasoning Quine says involve analogy and extrapolation, I shall make remarks about causal propositions. I believe there are at least two distinct, though related, types of causal propositions. The camber of the road was the cause of the crash. We have here what Ryle called systematically misleading expressions. We have an intractable lot of individual entities standing in causal relations. In these schemata, the letters go proxy for clauses, not for abstract noun-phrases. The motorist crashed because he drove fast. The motorist crashed because the road had such-and-such a camber where he was driving. The motorist crashed because he was not at the time carefully attending to his driving So now we have subjects instead of noun-phrases? Phidias caused the block of marble to be of human form. Phidias brought it about that the block of marble had human form. I am very uncertain about the relation between A and B. B -type is of importance in another way: God brought it about that Ex x is a human soul in body b ; and for no x did God bring it about that x is a human soul in body b expresses the supposition that God created a human soul in b. This analysis brings out various points that Aquinas makes about creation: In creation there is no real relation of God to the creature. The part of this proposition that expresses the creative act does not mention c, and denies that in creating God acted upon any individual. The distinction between two ways of inserting an existential quantifier, is not an ad hoc logical dodge to explain a dubious theological distinction; it is on the contrary well known to logicians who study intentional verbs. But in face of scepticism, a highly rigorous analysis of the proofs is an urgent task; And a necessary preliminary to such analysis is a fully developed logic of causal propositions, which we need anyhow to deal with many non-theological reasonings.

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