

## Chapter 1 : SparkNotes: David Hume (1711–1776): An Enquiry Concerning Human Understanding

*Best Answer: The way Hume puts it is this: "All the objects of human reason or enquiry may naturally be divided into two kinds, to wit, Relations of Ideas, and Matters of fact."*

I freely admit that it was the remembrance of David Hume which, many years ago, first interrupted my dogmatic slumber and gave my investigations in the field of speculative philosophy a completely different direction. I sought to secure their number, and since this succeeded as desired, namely, from a single principle, I then proceeded to the deduction of these concepts, on the basis of which I was now assured that they are not derived from experience, as Hume had feared, but have sprung from the pure understanding. That metaphysics until now has remained in such a wavering state of uncertainty and contradictions is to be ascribed solely to the fact that this problem, and perhaps even the distinction between analytic and synthetic judgments, was not thought of earlier. Metaphysics stands or falls with the solution of this problem, or on a satisfactory proof that the possibility it requires to be explained does not in fact obtain. By contrast, the name of Hume does not appear in either the Introduction or the Transcendental Analytic in the first A edition. This is not to say, of course, that implicit references to Hume are not found earlier in the text of the first edition. Appearances certainly provide cases from which a rule is possible in accordance with which something usually happens, but never that the succession is necessary; therefore, a dignity pertains to the synthesis of cause and effect that cannot be empirically expressed at all, namely, that the effect does not merely follow upon the cause but is posited through it and follows from it. This striking difference between the two editions clearly reflects the importance of the intervening appearance of the Prolegomena. It is natural to wonder, in particular, about the precise years to which Kant is referring and the specific events in his intellectual development he has in mind. Here, however, we now enter controversial terrain, where there are basically two competing alternatives—both of which reflect the circumstance that Kant could read Hume only in German translation. Kant might be referring, on the one hand, to the late 1750s to mid 1760s. Kant had almost certainly read this translation by the mid 1750s, by which time he himself expressed doubts about whether causal connections could be known by reason alone and even suggested that they were knowable only by experience. Or, on the other hand, Kant might be referring to the mid 1760s. After the Inaugural Dissertation appeared in 1770, Kant published nothing more until the first edition of the Critique in 1781. Kant explains his problem as follows 2, 3; I understand very well how a consequent may be posited through a ground in accordance with the rule of identity, because it is found to be contained in [the ground] by the analysis of concepts. However, how something may flow from another, but not in accordance with the rule of identity, is something that I would very much like to have made clear to me. I call the first kind of ground a logical ground, because its relation to the consequent can be logically comprehended in accordance with the rule of identity, but I call the second kind of ground a real ground, because this relation indeed belongs to my true concepts, but the manner of this [relation] can in no way be estimated. With respect to such a real ground and its relation to the consequent, I pose my question in this simple form: A logical consequent is only posited because it is identical with the ground. The fundamental problem with the relationship between a real ground and its consequent, therefore, is that the consequent is not identical with either the ground or a part of this concept 4. Thus, using his well-known later terminology from the Critique and the Prolegomena 5, Kant is here saying that, in the case of a real ground, the relationship between the concept of the consequent e. Moreover, although Kant does not explicitly refer to Hume in the essay on Negative Magnitudes, he proceeds to illustrate his problem with an example among others of the causal connection in the communication of motion by impact 2, 3; A body A is in motion, another B is at rest in the straight line [of this motion]. The motion of A is something, that of B is something else, and, nevertheless, the latter is posited through the former. Hume famously uses this example among others in the Enquiry to illustrate his thesis that cause and effect are entirely distinct events, where the idea of the latter is in no way contained in the idea of the former EHU 4. The mind can never possibly find the effect in the supposed cause, by the most accurate scrutiny and examination. For the effect is totally different from the cause, and consequently can never be discovered in it. Motion in the second billiard-ball is a quite distinct

event from motion in the first; nor is there anything in the one to suggest the smallest hint of the other. A few lines later Hume describes this example as follows EHU 4. When I see, for instance, a billiard-ball moving in a straight line towards another; even suppose motion in the second ball should by accident be suggested to me, as the result of their contact or impulse; may I not conceive, that a hundred different events might as well follow from the cause? Kant suggests, more specifically, that the relation between a real ground and its consequent can only be given by experience 2, ; It is impossible ever to comprehend through reason how something could be a cause or have a force, rather these relations must be taken solely from experience. For the rule of our reason extends only to comparison in accordance with identity and contradiction. But, in so far as something is a cause, then, through something, something else is posited, and there is thus no connection in virtue of agreement to be foundâ€”just as no contradiction will ever arise if I wish to view the former not as a cause, because there is no contradiction [in the supposition that] if something is posited, something else is cancelled. Therefore, if they are not derived from experience, the fundamental concepts of things as causes, of forces and activities, are completely arbitrary and can neither be proved nor refuted. Matters of fact, which are the second objects of human reason, are not ascertained in the same manner; nor is our evidence of their truth, however great, of a like nature with the foregoing. The contrary of every matter of fact is still possible; because it can never imply a contradiction â€œ. Hume then explains that: I shall venture to affirm, as a general proposition, which admits of no exception, that the knowledge of this relation is not, in any instance, attained by reasonings a priori; but arises entirely from experience, when we find that any particular objects are constantly conjoined with each other. And as the first imagination or invention of a particular effect, in all natural operations, is arbitrary, where we consult not experience; so must we also esteem the supposed tie or connexion between the cause and effect, which binds them together, and renders it impossible that any other effect could result from the operation of that cause. Hume proceeded primarily from a single but important concept of metaphysics, namely, that of the connection of cause and effect â€œ, and he challenged reason, which here pretends to have generated this concept in her womb, to give him an account of by what right she thinks that something could be so constituted that, if it is posited, something else must necessarily also be posited thereby; for this is what the concept of cause says. He proved indisputably that it is completely impossible for reason to think such a connection a priori and from concepts [alone] for this [connection] contains necessity ; but it can in no way be comprehended how, because something is, something else must necessarily also be, and how, therefore, the concept of such a connection could be introduced a priori. Empirical judgments, in so far as they have objective validity, are judgments of experience; they, however, in so far as they are only subjectively valid, I call mere judgments of perception. Therefore, the pure concepts of the understanding are those concepts under which all perceptions must first be subsumed before they can serve as judgments of experience, in which the synthetic unity of perceptions is represented as necessary and universally valid. It is possible, however, that a rule of relation is found in perception which says that a given appearance is constantly followed by another but not conversely ; and this is a case for me to employ the hypothetical judgment and, e. Here, there is certainly no necessity of connection as yet, and thus [not] the concept of cause. However, I continue and say that, if the above proposition, which is merely a subjective connection of perceptions, is to be a judgment of experience, then it must be viewed as necessary and universally valid. But such a proposition would be: The above empirical rule is now viewed as a lawâ€”and, in fact, not as valid merely of appearances, but [valid] of them on behalf of a possible experience, which requires completely and thus necessarily valid rules. Kant begins with the purely logical relation between ground and consequent. Since, in the case of the concept of cause, we are dealing with what Kant had earlier called a real ground, Kant holds that we need a synthetic rather than merely analytic connection between the two. This transformation is effected by the addition of the a priori concept of causality: It is in precisely this way, more generally, that the categories or pure concepts of the understanding relate to experience: For now, we simply note an important difficulty Kant himself raises in the Prolegomena. Whereas the concept of causality is, for Kant, clearly a priori, he does not think that particular causal laws relating specific causes with specific effects are all synthetic a prioriâ€”and, if they are not a priori, how can they be necessary? But how does this proposition, that judgments of experience are supposed to contain necessity in the synthesis of perceptions,

agree with my proposition, urged many times above, that experience, as a posteriori cognition, can yield only contingent judgments? If I say that experience teaches me something, I always mean only the perception that lies within it, *e. g.* That this heating results necessarily from the illumination by the sun is in fact contained in the judgment of experience in virtue of the concept of cause ; but I do not learn this from experience, rather, conversely, experience is first generated through this addition of the concept of the understanding of cause to the perception. In other words, experience in the Humean sense teaches me that heat always *i. e.* Experience never gives its judgments true or strict, but merely assumed or comparative universality through induction , so that, properly speaking, it must be formulated: If, therefore, a judgment is thought with strict universality, *i. e.* Empirical universality is thus only an arbitrary augmentation of validity from that which is valid in most cases to that which is valid in all *e. g.* By contrast, where strict universality essentially belongs to a judgment, this [universality] indicates a special source of cognition for [the judgment], namely a faculty of a priori cognition. Necessity and strict universality are thus secure criteria of an a priori cognition, and also inseparably belong together. The very concept of cause so obviously contains the concept of a necessity of the connection with an effect and a strict universality of the rule, that the concept [of cause] would be entirely lost if one pretended to derive it, as Hume did, from a frequent association of that which happens with that which precedes, and [from] a thereby arising custom thus a merely subjective necessity of connecting representations. Kant agrees with Hume that the idea of necessary connection is in fact an essential ingredient in our idea of the relation between cause and effect; Kant agrees, in addition, that, if all we had to go on were a purely inductive inference from observed constant conjunctions, the inference from comparative to strict universality would not be legitimate, and the presumed necessary connection arising in this way *i. e.* We therefore need experience in the Humean sense in order to make any causal claims *e. g.* that is, the observation of an event of one type A constantly followed by an event of another type B. Otherwise as we have also seen any event could follow any other *e. g.* 4. Shall we then rest contented with these two relations of contiguity and succession, as affording a complete idea of causation? In the Enquiry, section 4, part 2, Hume presents his famous skeptical argument concerning causation and induction. These two propositions are far from being the same, I have found that such an object has always been attended with such an effect, and I foresee, that other objects, which are, in appearance, similar, will be attended with similar effects. For all inferences from experience suppose, as their foundation, that the future will resemble the past *e. g.* If there be any suspicion, that the course of nature may change, and that the past may be no rule for the future, all experience becomes useless, and can give rise to no inference or conclusion. Therefore, what Hume is now seeking, in turn, is the foundation in our reasoning for the supposition that nature is sufficiently uniform. Section 4, part 1 of the Enquiry distinguishes as we have seen between reasoning concerning relations of ideas and reasoning concerning matters of fact and existence. Demonstrative reasoning concerning relations of ideas cannot establish the supposition in question, since it implies no contradiction, that the course of nature may change, and that an object, seemingly like those which we have experienced, may be attended with different or contrary effects. We have said, that all arguments concerning existence are founded on the relation of cause and effect; that our knowledge of that relation is derived entirely from experience; and that all our experimental conclusions proceed upon the supposition, that the future will be conformable to the past. To endeavour, therefore, the proof of this last proposition by probable arguments, or arguments regarding existence, must be evidently going in a circle, and taking that for granted, which is the very point in question. And though [one] should be convinced, that his understanding has no part in the operation, he would nonetheless continue in the same course of thinking. There is some other principle, which determines him to form such a conclusion. For wherever the repetition of any particular act or operation produces a propensity to renew the same act or operation, without being impelled by any reasoning or process of the understanding; we always say, that this propensity is the effect of Custom. By employing that word, we pretend not to have given the ultimate reason of such a propensity. We only point out a principle of human nature, which is universally acknowledged, and which is well known by its effects. It appears, then, that this idea of a necessary connexion among events arises from a number of similar instances which occur of the constant conjunction of these events; nor can that idea ever be suggested by any one of these instances, surveyed in all possible lights and

positions. But there is nothing in a number of instances, different from every single instance, which is supposed to be exactly similar; except only, that after a repetition of similar instances, the mind is carried by habit, upon the appearance of one event, to expect its usual attendant, and to believe that it will exist. This connexion, therefore, which we feel in the mind, this customary transition of the imagination from one object to its usual attendant, is the sentiment or impression, from which we form the idea of power or necessary connexion. Thus, the custom or habit to make the inductive inference not only gives rise to a new idea of not yet observed instances resembling the instances we have already observed, it also produces a feeling of determination to make the very inductive inference in question. This feeling of determination, in turn, gives rise to a further new idea, the idea of necessary connexion, which has no resemblance whatsoever with anything we have observed. No conclusions can be more agreeable to scepticism than such as make discoveries concerning the weakness and narrow limits of human reason and capacity. And what stronger instance can be produced of the surprising ignorance and weakness of the understanding, than the present? For surely, if there be any relation among objects, which it imports to us to know perfectly, it is that of cause and effect. Kant agrees with Hume that neither the relation of cause and effect nor the idea of necessary connection is given in our sensory perceptions; both, in an important sense, are contributed by our mind. For Kant, however, the concepts of both causality and necessity arise from precisely the operations of our understanding—and, indeed, they arise entirely a priori as pure concepts or categories of the understanding. At the end of our discussion in section 1 above we saw that there is a serious difficulty in understanding what Kant intends here—a difficulty to which he himself explicitly calls attention. Indeed, the very same difficulty is present in our discussion at the beginning of this section. Experience in fact teaches us that something is constituted thus and so, but not that it cannot be otherwise. Hence, if a proposition is thought together with its necessity, then it is an a priori judgment. Yet, once again, Kant does not think that particular causal laws relating specific causes to specific effects are all synthetic a priori.

**Chapter 2 : Kant and Hume on Causality (Stanford Encyclopedia of Philosophy)**

*Hume opens this section by drawing a distinction between "relations of ideas" and "matters of fact." Relations of ideas are a priori and indestructible bonds created between ideas. All logically true statements such as "5 + 7 = 12" and "all bachelors are unmarried" are relations of ideas.*

In morality as in all else, Hume supposed, our beliefs and actions are the products of custom or habit. Since all of our most scientific beliefs have exactly the same foundation, this account preserves the natural dignity of moral judgments. Hume devoted the second book of the *Treatise* to an account of the human passions and a discussion of their role in the operation of the human will. It is our feelings or sentiments, Hume claimed, that exert practical influence over human volition and action. Observation does reveal a constant conjunction between having a motive not a reason for acting and performing the action in question. At one level, of course, this entails that we are determined to act as we do. Our feelings or sentiments produce our actions with the same degree of causal necessity, the same habitual expectation that the future will resemble the past, as that by which the rotation of the earth causes the sun to rise. Like Locke, Hume denied that determination of this sort is relevant to our moral freedom ; only when my actions are observed to be the effects of some cause outside myself could I decline to accept my own responsibility for them. So a proper science of human nature will account for human actions, as well as for human beliefs, by reference to the natural formation of habitual associations with human feelings. Clearly, rationality had no place in this account of morality. Although reason may judge relations of ideas and matters of fact, its most vivid outcomes never compel us to act as even the weakest of feelings may do. No compilation of facts, however complete or reliable, ever entails a moral obligation or results in action. All human actions flow naturally from human feelings, without any interference from human reason. Moral Sentiment It does not follow that all actions are of equal value. As a straightforward matter of fact discoverable by experience , virtue is always accompanied by a feeling of pleasure, and vice by a feeling of pain. Thus, we praise an instance of virtuous action precisely because it arouses in us a pleasant feeling, and we avoid committing a vicious action because we anticipate that doing so would produce pain. Our feelings provide a natural guide for moral conduct. The ideas of benevolence, utility, and justice arouse our deepest and most pervasive feelings, he maintained, and these feelings in turn motivate us toward actions of moral worth. I offer assistance to those in need because it makes me feel good to do so, and I am fair in my dealings with others because it would make me feel bad if I were not. All of morality rests firmly upon the natural human inclination to seek pleasure and avoid pain. Thus, Hume regarded himself as having provided morality with a status no less significant in human life than that of natural science. In his own time, he was often regarded as a great enemy of organized religion. The posthumously published *Dialogues* offer an extended treatment of the intellectual interchanges among facile orthodoxy, natural theology, and philosophical skepticism. There Hume took great care to expose what he believed to be the great mistake of trying to prove that god exists. The newly-popular argument from design supposes that the order and beauty of the universe reflect the greatness and demonstrate the reality of its ultimate cause. Hume noted that since this analogical argument claims to infer a cause from presumed effects, it must be grounded as a matter of fact on the experience of a constant conjunction. But since in fact we have not observed repeated instances of gods creating universes, we cannot have formed the habit of associating our experience of the one with our inferences about the other. No causal relationship can ever be established from the observation of a unique example. What is more, Hume argued that even if it were possible to engage in causal reasoning in this case, it could not warrant the intended conclusion. The presumed cause must always be supposed to be proportional to the observed effect, so the manifest imperfections of this world could never support belief in the perfection of its creator. The argument from design is a two-edged sword, as likely to persuade us of the frailty or malevolence as of the power and benevolence of the presumed cause of the world as we know it. Miracles Nor did Hume suppose that references to the miraculous would provide a rational basis for religion. In this case, we do have the experience of constant conjunction to establish the "laws of nature" of which any purported miracle is a violation, and we have only the testimony of witnesses to establish the fact of the miracle itself.

Since this testimony and the motives of the witnesses who offer it are always open to question, Hume argued, we will believe that the miracle occurred only when the possibility of false testimony seems an even greater violation of the natural order. On this view, a fideistic Hume could hold that belief in the existence of god or the immortality of the soul is no less natural than belief in the existence of bodies or the persistence of the self. An alternative interpretation, however, accepts the lengthy rejection of religious orthodoxy as sincere while attributing the brief, moderate endings as a half-hearted effort to take the edge off.

## Chapter 3 : Hume's fork - Wikipedia

*Lastly, ideas that fall in the basis of relations of ideas are usually uncontroversial, because they can be proved conclusively (listed in the 4th trait). Statements such as "Gold is an element" and "All bachelors are unmarried" are both examples of matters of fact.*

Contemporary Metaphysics of Causation 1. Loosely, it states that all constituents of our thoughts come from experience. Hume calls the contents of the mind perceptions, which he divides into impressions and ideas. Though Hume himself is not strict about maintaining a concise distinction between the two, we may think of impressions as having their genesis in the senses, whereas ideas are products of the intellect. Impressions, which are either of sensation or reflection memory, are more vivid than ideas. At first glance, the Copy Principle may seem too rigid. But to proffer such examples as counter to the Copy Principle is to ignore the activities of the mind. The mind may combine ideas by relating them in certain ways. If we have the idea of gold and the idea of a mountain, we can combine them to arrive at the idea of a golden mountain. The Copy Principle only demands that, at bottom, the simplest constituent ideas that we relate come from impressions. This means that any complex idea can eventually be traced back to genesis constituent impressions. In the Treatise, Hume identifies two ways that the mind associates ideas, via natural relations and via philosophical relations. Natural relations have a connecting principle such that the imagination naturally leads us from one idea to another. The three natural relations are resemblance, contiguity, and cause and effect. Of these, Hume tells us that causation is the most prevalent. But cause and effect is also one of the philosophical relations, where the relata have no connecting principle, instead being artificially juxtaposed by the mind. Of the philosophical relations, some, such as resemblance and contrariety, can give us certitude. Cause and effect is one of the three philosophical relations that afford us less than certain knowledge, the other two being identity and situation. But of these, causation is crucial. It alone allows us to go beyond what is immediately present to the senses and, along with perception and memory, is responsible for all our knowledge of the world. Hume therefore recognizes cause and effect as both a philosophical relation and a natural relation, at least in the Treatise, the only work where he draws this distinction. The relation of cause and effect is pivotal in reasoning, which Hume defines as the discovery of relations between objects of comparison. But causation itself must be a relation rather than a quality of an object, as there is no one property common to all causes or to all effects. Causation is a relation between objects that we employ in our reasoning in order to yield less than demonstrative knowledge of the world beyond our immediate impressions. Hume gives several differentiae distinguishing the two, but the principal distinction is that the denial of a true relation of ideas implies a contradiction. Relations of ideas can also be known independently of experience. Matters of fact, however, can be denied coherently, and they cannot be known independently of experience. Although Immanuel Kant later seems to miss this point, arguing for a middle ground that he thinks Hume missed, the two categories must be exclusive and exhaustive. A true statement must be one or the other, but not both, since its negation must either imply a contradiction or not. There is no middle ground. Yet given these definitions, it seems clear that reasoning concerning causation always invokes matters of fact. For Hume, the denial of a statement whose truth condition is grounded in causality is not inconceivable and hence, not impossible; Hume holds that conceivability implies possibility. For instance, a horror movie may show the conceivability of decapitation not causing the cessation of animation in a human body. But if the denial of a causal statement is still conceivable, then its truth must be a matter of fact, and must therefore be in some way dependent upon experience. Though for Hume, this is true by definition for all matters of fact, he also appeals to our own experience to convey the point. Hume challenges us to consider any one event and meditate on it; for instance, a billiard ball striking another. He holds that no matter how clever we are, the only way we can infer if and how the second billiard ball will move is via past experience. There is nothing in the cause that will ever imply the effect in an experiential vacuum. And here it is important to remember that, in addition to cause and effect, the mind naturally associates ideas via resemblance and contiguity. Hume does not hold that, having never seen a game of billiards before, we cannot know what the effect of the collision will be. Rather, we can use

resemblance, for instance, to infer an analogous case from our past experiences of transferred momentum, deflection, and so forth. We are still relying on previous impressions to predict the effect and therefore do not violate the Copy Principle. We simply use resemblance to form an analogous prediction. And we can charitably make such resemblances as broad as we want. Under a Humean account, the toddler who burned his hand would not fear the flame after only one such occurrence because he has not experienced a constant conjunction, are unfair to Hume, as the toddler would have had thousands of experiences of the principle that like causes like, and could thus employ resemblance to reach the conclusion to fear the flame. If Hume is right that our awareness of causation or power, force, efficacy, necessity, and so forth - he holds all such terms to be equivalent is a product of experience, we must ask what this awareness consists in. What is meant when some event is judged as cause and effect? Strictly speaking, for Hume, our only external impression of causation is a mere constant conjunction of phenomena, that B always follows A, and Hume sometimes seems to imply that this is all that causation amounts to. And this notion of causation as constant conjunction is required for Hume to generate the Problem of induction discussed below. Hume points out that this second component of causation is far from clear. What is this necessity that is implied by causation? Clearly it is not a logical modality, as there are possible worlds in which the standard laws of causation do not obtain. It might be tempting to state that the necessity involved in causation is therefore a physical or metaphysical necessity. However, Hume considers such elucidations unhelpful, as they tell us nothing about the original impressions involved. At best, they merely amount to the assertion that causation follows causal laws. But invoking this common type of necessity is trivial or circular when it is this very efficacy that Hume is attempting to discover. We must therefore follow a different route in considering what our impression of necessity amounts to. As causation, at base, involves only matters of fact, Hume once again challenges us to consider what we can know of the constituent impressions of causation. Once more, all we can come up with is an experienced constant conjunction. Of the common understanding of causality, Hume points out that we never have an impression of efficacy. Because of this, our notion of causal law seems to be a mere presentiment that the constant conjunction will continue to be constant, some certainty that this mysterious union will persist. Hume argues that we cannot conceive of any other connection between cause and effect, because there simply is no other impression to which our idea may be traced. This certitude is all that remains. For Hume, the necessary connection invoked by causation is nothing more than this certainty. Instead, the impression of efficacy is one produced in the mind. Ergo, the idea of necessity that supplements constant conjunction is a psychological projection. We cannot help but think that the event will unfurl in this way. He gives similar but not identical definitions in the Enquiry. Robinson is perhaps the staunchest proponent of the position that the two are nonequivalent, arguing that there is an nonequivalence in meaning and that they fail to capture the same extension. Two objects can be constantly conjoined without our mind determining that one causes the other, and it seems possible that we can be determined that one object causes another without their being constantly conjoined. But if the definitions fail in this way, then it is problematic that Hume maintains that both are adequate definitions of causation. Some scholars have argued for ways of squaring the two definitions Don Garrett, for instance, argues that the two are equivalent if they are both read objectively or both read subjectively, while others have given reason to think that seeking to fit or eliminate definitions may be a misguided project. One alternative to fitting the definitions lies in the possibility that they are doing two separate things, and it might therefore be inappropriate to reduce one to the other or claim that one is more significant than the other. There are several interpretations that allow us to meaningfully maintain the distinction and therefore the nonequivalence between the two definitions unproblematically. For instance, D1 can be seen as tracing the external impressions that is, the constant conjunction requisite for our idea of causation while D2 traces the internal impressions, both of which are important to Hume in providing a complete account. Another method is to cash out the two definitions in terms of the types of relation. Walter Ott argues that, if this is right, then the lack of equivalence is not a problem, as philosophical and natural relations would not be expected to capture the same extension. If the definitions were meant to separately track the philosophical and natural relations, we might expect Hume to have explained that distinction in the Enquiry rather than dropping it while still maintaining two definitions. In fact, later in the Treatise, Hume

states that necessity is defined by both, either as the constant conjunction or as the mental inference, that they are two different senses of necessity, and Hume, at various points, identifies both as the essence of connection or power. Whether or not Robinson is right in thinking Hume is mistaken in holding this position, Hume himself does not seem to believe one definition is superior to the other, or that they are nonequivalent. Attempting to establish primacy between the definitions implies that they are somehow the bottom line for Hume on causation. But Hume is at pains to point out that the definitions are inadequate. But though both these definitions be drawn from circumstances foreign to cause, we cannot remedy this inconvenience, or attain any more perfect definition. Although Hume does the best that can be expected on the subject, he is dissatisfied, but this dissatisfaction is inevitable. This is because, as Hume maintains in Part VII of the Enquiry, a definiens is nothing but an enumeration of the constituent simple ideas in the definiendum. It is an inconvenience that they appeal to something foreign, something we should like to remedy. Unfortunately, such a remedy is impossible, so the definitions, while as precise as they can be, still leave us wanting something further. But if this is right, then Hume should be able to endorse both D1 and D2 as vital components of causation without implying that he endorses either or both as necessary and sufficient for causation. Though Hume gives a quick version of the Problem in the middle of his discussion of causation in the Treatise T 1. It should be noted, however, that not everyone agrees about what exactly the Problem consists in. Briefly, the typified version of the Problem as arguing for inductive skepticism can be described as follows: Recall that proper reasoning involves only relations of ideas and matters of fact. Again, the key differentia distinguishing the two categories of knowledge is that asserting the negation of a true relation of ideas is to assert a contradiction, but this is not the case with genuine matters of fact. But in Section IV, Hume only pursues the justification for matters of fact, of which there are two categories: For Hume, B would include both predictions and the laws of nature upon which predictions rest. We cannot claim direct experience of predictions or of general laws, but knowledge of them must still be classified as matters of fact, since both they and their negations remain conceivable. In considering the foundations for predictions, however, we must remember that, for Hume, only the relation of cause and effect gives us predictive power, as it alone allows us to go beyond memory and the senses. All such predictions must therefore involve causality and must therefore be of category B. But what justifies them?

**Chapter 4 : Becky Clay: Philosophy Things: Essays: David Hume: Relations of Ideas and Matters of Fact**

*As opposed to relations of ideas, which are known a priori, you know matters of fact a posteriori or after experience. Now if, as Hume contends, the only objects of human knowledge are matters of fact and relations of ideas, then many "spiritual" entities thought to be real will have been lopped off by Hume's logical scalpel.*

Notes for PHIL Intro to Philosophy Empiricist Epistemology: Hume and Positivism David Hume extends the empiricist project by insisting that our knowledge of "facts" about the world is based ultimately on experience. Such claims about the world are what he calls "matters of fact. They provide us with no real knowledge other than regarding what terms mean. As long as we understand the meaning of a certain term, we can analyze it that is, unpack what is implicit in the term without learning anything about whether there is anything in the world that the term describes. Relations-of-ideas statements that identify characteristics that are already implicit in the meaning of a concept or object such as "all bodies take up some space," "bachelors are human beings" are thus called analytic statements. True analytic judgments are those in which the predicate that is, what you say about something--for example, "are unmarried" is contained within the subject e. If you try to deny such a proposition such as saying, "It is not the case that bachelors are unmarried" , you contradict yourself. In contrast to analytic propositions, propositions in which the predicate is not part of the meaning or definition of the thing. To say, for example, that some birds are yellow is to say something about birds which is not contained within the definition of what it is that makes a bird a bird. After all, not all birds have to be yellow. By saying that a particular bird is yellow, we add a new bit of information which we could not know by simply knowing that something is a bird: In this sense, we combine or synthesize two ideas, one of which yellow is not already implicit within the meaning of the other bird. A proposition such as "Some birds are yellow" is therefore called a synthetic proposition. Synthetic propositions are statements in which the predicate is not contained within the subject; and if we deny such a "matter of fact" proposition such as saying, "It is not the case that some birds are yellow" , we do not necessarily contradict ourselves. The distinction between analytic and synthetic propositions is different from the distinction between a priori and a posteriori propositions. The distinction between a priori and a posteriori judgments deals with whether you have to rely on experience to determine whether the proposition is true or false. The distinction between analytic and synthetic judgments deals with whether what you say about a thing is already contained in the meaning of the thing. Since analytic judgments can be made in most cases without having to appeal to experience, they happen to be a priori judgments as well; just as in most cases, synthetic judgments happen to be a posteriori judgments. Hume thinks that all analytic judgments are a priori and all synthetic judgments are a posteriori. That is, every meaningful statement is known as true or false either by definition--in which case, it tells us nothing about the world--or by experience. Propositions such as "there is a God" or "there is a spiritual self" are not true by definition nor are they based on sense experience; therefore they are meaningless statements. Berkeley had claimed that there must be a cause of our ideas which is not a material substance as Locke maintained but is rather God. Hume replies that, since we can say "there is no God" without contradicting ourselves, and since the notion of God is not based on any sense experience, we cannot say that God is the cause of anything. But Hume does not stop there. He asks what it means to say that we know that events have causes. When we try to trace such knowledge back to experience, we discover that all we mean by saying that A causes B is that A occurs before B, A seems to be near B in space and time, and that in our experience events like A seem to be followed with some regularity by events like B. The problem with this, Hume notes, is that we do not experience a necessary connection between A and B. We have a natural inclination to assume that there is a connection a "constant conjunction" between an event and its supposed cause, but there is no empirical justification for thinking every event has a cause. Even if every event in the past has had a cause, that is no justification for thinking that future events will have causes as well, since we do not know that future events will resemble past events. So even the assumption that there is a high probability that things in the future will resemble the past is empirically groundless and philosophically suspect. Similarly, we assume that our present experiences are linked to our past experiences by means of some "self. If we do not know that we

have a continuous self, we cannot depend on our memories. And that means that all we know is what we are immediately experiencing. Even that is doubtful, because it all might be illusion. That is, in the end we must doubt whether any knowledge is possible skepticism. Even if our natural inclinations e. Even if the self and cause cannot be known, they must be presumed to make sense of experience. Logical Positivism According to Logical Positivists, a group of philosophers who developed their ideas beginning in the s, to say that a proposition is meaningful means that it is based on sense data experience or is a mere linguistic convention a truth that we simply decide to accept by definition, a tautology. The meaning of a statement about the world is a prediction of what sense data you would experience if you were to be in a particular situation. Learning is the result simply of behavioral conditioning behaviorism. Sense data are themselves neither mental nor physical. The mental-physical distinction consists simply in our organization or arrangement of predicates e. The self is simply a bundle of perceptions, and there is no continuous substantial self. Psychological atomism the view that reality as composed simply of atoms of sensation such as yellow, sharp, hot is wrong because knowledge of the world is not built up from discrete sensorial impressions. Rather, perception occurs in a field of meaning a "gestalt" , in which a sensation becomes a perception by being distinguished from its background. The social field is a structure that sets the expectation for what we can perceive. Perception is not simply an objective given. The ability to engage in linguistic novelty that is, to understand combinations of words we have not heard before and to form expressions that parallel others proves that operant conditioning behaviorism cannot explain linguistic ability. Noam Chomsky claims that this capacity for "deep grammar" in terms of which we describe the world is innate, a result of the structure of the brain.

### Chapter 5 : explain Hume's distinction btwn Relations of Ideas and Matters of Fact? | Yahoo Answers

*Relation of Ideas vs Matter of Fact In section four Hume talks about the distinction between "relations of ideas" and "matter of fact". According to Hume relations of ideas are a prior knowledge.*

Section IV Summary Hume opens this section by drawing a distinction between "relations of ideas" and "matters of fact. Relations of ideas are intuitively or demonstrably certain, and a denial of such a proposition implies a contradiction. Matters of fact deal with experience: They are learned a posteriori, and can be denied without fear of contradiction. If it is sunny outside and I assert that it is raining, I can only be proven wrong by looking out the window and checking: While I may know many matters of fact from sensory experience or from memory, neither is the source of my knowledge that my friend is in France or that the sun will rise tomorrow. Hume suggests that we know matters of fact about unobserved things through a process of cause and effect. My knowledge that my friend is in France might have been caused by a letter to that effect, and my knowledge that the sun will rise tomorrow is inferred from past experience, which tells me that the sun has risen every day in the past. Hume then asks how we know the principle of cause and effect: He suggests that this knowledge cannot be a priori, since I can deny that the second billiard ball will move without contradiction. Cause and effect are themselves totally distinct: Hume thus concludes that our knowledge of cause and effect must be based on experience. From observed phenomena in the past we infer as yet unobserved phenomena in the future. We base our knowledge of future events in past experience, but how do we know that the past is a good guide for future predictions? Hume distinguishes between "demonstrative reasoning," which is based on relations of ideas, and "moral reasoning," which is based on matters of fact. We cannot know that the future will resemble the past by means of demonstrative reasoning, since there is no contradiction in suggesting that the future will not resemble the past. Moral reasoning is also unhelpful, since it falls into a vicious circle. If all our predictions about the future are based on this principle--that the future will resemble the past--and that principle is derived from past experience, we cannot know that it will remain true in the future except by assuming that principle from the outset. Hume suggests that we infer similarities between past and future but that there is no form of reasoning that can confirm these inferences. He confesses that he may simply have failed to identify an argument that could give a rational foundation for causal reasoning, but he challenges the reader to identify it. Even a child knows from past experience that a flame will burn. If this knowledge comes from some form of reasoning, it must be a form of reasoning so obvious that even a child can grasp it. Why, then, Hume asks, is it so difficult to identify? He suggests that the child learns, not through reasoning, but through the conditioning of custom.

**Chapter 6 : Empiricism: Hume & Positivism**

*relations of ideas vs. matters of fact (a.k.a.: analytic vs. synthetic statements) relations of ideas - statements that are made true simply in virtue of the concepts contained in the statement.*

MOL 3 Katherine Falconer Hume realized that David was uncommonly precocious, so when his older brother went up to Edinburgh University, Hume went with him, although he was only 10 or There he studied Latin and Greek, read widely in history and literature, ancient and modern philosophy, and also did some mathematics and natural philosophy—what we now call natural science. The education David received, both at home and at the university, aimed at training pupils to a life of virtue regulated by stern Scottish Calvinist strictures. Prayers and sermons were prominent aspects of his home and university life. At some point, Hume read *The Whole Duty of Man*, a widely circulated Anglican devotional tract that details our duties to God, our fellow human beings, and ourselves. The intensity of developing his philosophical vision precipitated a psychological crisis in the isolated scholar. Here he read French and other continental authors, especially Malebranche, Dubos, and Bayle, and occasionally baited the Jesuits with arguments attacking their beliefs. By this time, Hume had not only rejected the religious beliefs with which he was raised, but was also opposed to organized religion in general, an opposition that remained constant throughout his life. In 1726, when he was only 23, he began writing *A Treatise of Human Nature*. Hume returned to England in 1726 to ready the *Treatise* for the press. Six years later, he stood for the Chair of Logic at Glasgow, only to be turned down again. Hume never held an academic post. A year later he became secretary to his cousin, Lieutenant General James St Clair, eventually accompanying him on an extended diplomatic mission in Austria and Italy. He also included material he had excised from the *Treatise*. Published in six volumes between 1757 and 1762, his *History* was a bestseller well into the next century, finally giving him the financial independence he had long sought. Friends and publishers persuaded him to suppress some of his more controversial writings on religion during his lifetime. In 1763, Hume accepted a position as private secretary to the British Ambassador to France. He became the rage of the Parisian salons, enjoying the conversation and company of famous European intellectuals. He was known for his love of good food and wine, as well as his enjoyment of the attentions and affections of women. Hume returned to Edinburgh in 1769. He spent considerable time revising his works for new editions of his *Essays and Treatises*, which contained his collected *Essays*, the two *Enquiries*, *A Dissertation on the Passions*, and *The Natural History of Religion*, but —“significantly—“not *A Treatise of Human Nature*. In 1769, Hume was diagnosed with intestinal cancer. He summarizes his project in its subtitle: *The ancient philosophers, on whom he had been concentrating, replicated the errors their natural philosophers made. He was convinced that the only way to improve philosophy was to make the investigation of human nature central—“and empirical HL 3. The problem with ancient philosophy was its reliance on hypotheses—“claims based on speculation and invention rather than experience and observation. By the time Hume began to write the *Treatise* three years later, he had immersed himself in the works of the modern philosophers, but he found them disturbing, not least because they made the same mistakes the ancients did, while professing to avoid them. Their theories were too speculative, relying on a priori assumptions, and paying too little attention to what human nature is actually like. These systems, covering a wide range of entrenched and influential metaphysical and theological views, purport to have discovered principles that give us a deeper and more certain knowledge of ultimate reality. Metaphysics aids and abets these and other superstitious doctrines. His critique of metaphysics clears the way for the constructive phase of his project—“the development of an empirical science of human nature—“and Hume is not at all skeptical about its prospects. The new foundation is the scientific study of human nature. They are all human activities, so what we are able to accomplish in them depends on understanding what kinds of questions we are able to handle and what sorts we must leave alone. If we have a better grasp of the scope and limits of our understanding, the nature of our ideas, and the operations we perform in reasoning about them, there is no telling what improvements we might make in these sciences. We should expect even more improvement in the sciences that are more closely connected to the study of human nature: Although Hume does not mention him by name, Newton —“ is his hero. Any laws we discover must*

be established by observation and experiment. Hume is proposing an empiricist alternative to traditional a priori metaphysics. His empiricism is naturalistic in that it refuses to countenance any appeal to the supernatural in the explanation of human nature. As a naturalist, he aims to account for the way our minds work in a manner that is consistent with a Newtonian picture of the world. Hume portrays his scientific study of human nature as a kind of mental geography or anatomy of the mind EHU 1. In the first section of the first Enquiry, he says that it has two principal tasks, one purely descriptive, the other explanatory. Hume, however, wants to go much further. But he emphasizes that while he will try to find the most general principles, rendering them as universal as possible, all of his explanations must be based completely on experience. Although philosophy, as an empirical enterprise, is itself bound by experience, this is not a defect in the science of human nature. The same is true for all the sciences: Explanations must come to an end somewhere. Hume is Newtonian in much more than method. He sees that Newton is significantly different from John Locke and the other Royal Society natural philosophers, because he rejects their mechanist picture of the world. By appealing to these same principles throughout, Hume gives an explanation of these diverse phenomena that enable him to provide a unified and economical account of the mind. Each piece is warranted by experience. The early modern period was the heyday of the investigation of the ideas of causation, moral good and evil, and many other philosophically contested ideas. Hume holds an empiricist version of the theory, because he thinks that everything we believe is ultimately traceable to experience. He begins with an account of perceptions, because he believes that any intelligible philosophical question must be asked and answered in those terms. He uses perception to designate any mental content whatsoever, and divides perceptions into two categories, impressions and ideas. Impressions include sensations as well as desires, passions, and emotions. He thinks everyone will recognize his distinction, since everyone is aware of the difference between feeling and thinking. Hume distinguishes two kinds of impressions: He calls them original because trying to determine their ultimate causes would take us beyond anything we can experience. Any intelligible investigation must stop with them. Impressions of reflection include desires, emotions, passions, and sentiments. They are essentially reactions or responses to ideas, which is why he calls them secondary. Perceptions—both impressions and ideas—may be either simple or complex. Complex impressions are made up of a group of simple impressions. My impression of the violet I just picked is complex. Among the ways it affects my senses are its brilliant purple color and its sweet smell. I can separate and distinguish its color and smell from the rest of my impressions of the violet. Hume initially distinguishes impressions and ideas in terms of their degree of force and vivacity. Impressions are more forceful and vivacious than ideas. At various times, Hume tries other ways of characterizing the difference between impressions and ideas, but he was never completely satisfied with them. Still, what he says works well enough to give us a handle on the felt differences between impressions and ideas. When Hume distinguishes impressions and ideas in terms of their relative force and vivacity, he is pointing out something that is generally true of them as a matter of fact. On occasion, in dreams or a high fever, ideas may approach the force and vivacity of impressions, but these are exceptions that prove the “empirical” rule. In general, impressions and ideas are so different that no one can deny the distinction. He argues first that there is a one-to-one correspondence between simple ideas and simple impressions. But he is so confident the correspondence holds that he challenges anyone who doubts it to produce an example of a simple impression without a corresponding simple idea, or a simple idea without a corresponding simple impression. Since he is certain they will fail, he concludes that there is a constant conjunction between simple impressions and simple ideas. There must be a causal connection between them, but do ideas cause impressions or do impressions cause ideas? Finally, he argues that experience tells us that simple impressions always precede and thus cause their corresponding ideas. To support this claim, he appeals to two sorts of cases. First, if you want to give a child an idea of the taste of pineapple, you give her a piece of pineapple to eat. You never go the other way round. He imagines someone who has had the same sorts of experiences of colors most of us have had, but has never experienced a certain shade of blue. Hume thinks that if he orders all the shades of blue he has experienced from the darkest to the lightest, he will see immediately that there is a gap where the missing shade should be. While scholars have wondered exactly how the person might supply the missing shade, he seems unconcerned with the details. For

Hume, once again the exception proves the "empirical" rule. As his diagnosis of traditional metaphysics reveals, Hume believes that the chief obstacle to our improvement in the moral or metaphysical sciences is the obscurity of the ideas, and ambiguity of the terms. Getting clear about the content of the ideas and the meanings of the terms we are investigating requires something else. He believes he has found a way to accurately determine their content—his account of definition. Begin with a term. Ask what idea is annexed to it. If there is no such idea, then the term has no cognitive content, however prominently it figures in philosophy or theology. If there is an idea annexed to the term, and it is complex, break it down into the simple ideas that compose it, and trace them back to their original impressions. If the process fails at any point, the idea in question lacks cognitive content. Hume uses his account of definition in his critical phase to show that many of the central concepts of traditional metaphysics lack intelligible content. He also uses it in his constructive phase to determine the exact meaning of our terms and ideas. This suggests that There is a secret tie or union among particular ideas, which causes the mind to conjoin them more frequently, and makes the one, upon its appearance, introduce the other. Hume identifies three principles of association: When someone shows you a picture of your best friend, you naturally think of her because the picture resembles her.

## Chapter 7 : Relation of Ideas - Wikipedia

*-Relations of Ideas vs Matters of Fact: kinds of things that Descartes would call judgments -inferences about matters of fact are based on cause and effect -knowledge of cause and effect is always evidence that comes from experience (posteriori).*

These are analytic , necessary , and knowable a priori. Statements about the world. These are synthetic, contingent , and knowable a posteriori. In modern terminology, members of the first group are known as analytic propositions and members of the latter as synthetic propositions. Into the first class fall statements such as "all bodies are extended", "all bachelors are unmarried", and truths of mathematics and logic. Into the second class fall statements like "the sun rises in the morning", and "all bodies have mass". Hume wants to prove that certainty does not exist in science. First, Hume notes that statements of the second type can never be entirely certain, due to the fallibility of our senses, the possibility of deception see e. It is always logically possible that any given statement about the world is false. Second, Hume claims that our belief in cause-and-effect relationships between events is not grounded on reason, but rather arises merely by habit or custom. Things of this nature rely upon the future conforming to the same principles which governed the past. Third, Hume notes that relations of ideas can be used only to prove other relations of ideas, and mean nothing outside of the context of how they relate to each other, and therefore tell us nothing about the world. Take the statement "An equilateral triangle has three sides of equal length. So for this reason, relations of ideas cannot be used to prove matters of fact. The results claimed by Hume as consequences of his fork are drastic. Because of this, matters of fact have no certainty and therefore cannot be used to prove anything. Only certain things can be used to prove other things for certain, but only things about the world can be used to prove other things about the world. If God is not literally made up of physical matter, and does not have an observable effect on the world, making a statement about God is not a matter of fact. Therefore, a statement about God must be a relation of ideas. Hume rejected the idea of any meaningful statement that did not fall into this schema, saying: If we take in our hand any volume; of divinity or school metaphysics , for instance; let us ask, Does it contain any abstract reasoning concerning quantity or number? Does it contain any experimental reasoning concerning matter of fact and existence? Commit it then to the flames: Retrieved February 12, An Introduction to Modern Philosophy, 2nd Edition, p

**Chapter 8 : David Hume (Stanford Encyclopedia of Philosophy)**

*According to Hume, our belief that events are causally related is a custom or habit acquired by experience: having observed the regularity with which events of particular sorts occur together, we form the association of ideas that produces the habit of expecting the effect whenever we experience the cause.*

Impressions come through our senses, emotions, and other mental phenomena, whereas ideas are thoughts, beliefs, or memories that we connect to our impressions. We construct ideas from simple impressions in three ways: Next, Hume distinguishes between relations of ideas and matters of fact. Relations of ideas are usually mathematical truths, so we cannot negate them without creating a contradiction. Matters of fact are the more common truths we learn through our experiences. We understand matters of fact according to causation, or cause and effect, such that our experience of one event leads us to assume an unobserved cause. But Hume argues that assumptions of cause and effect between two events are not necessarily real or true. It is possible to deny causal connections without contradiction because causal connections are assumptions not subject to reason. We cannot justify our assumptions about the future based on past experience unless there is a law that the future will always resemble the past. No such law exists. We can deny the relationship without contradiction and we cannot justify it with experience. Therefore, we have no rational support for believing in causation. Hume suggests that our assumptions are based on habit, not reason, and that, ultimately, our assumptions about matters of fact are based in probability. If experience teaches us that two events occur together repeatedly, we will assume a link between them. So, Hume explains, we must be able to reduce all meaningful concepts to the simple impressions on which they are built. Since no simple impression of causation or necessary connection exists, these concepts might appear meaningless. Rather than dismiss these assumed connections entirely, however, Hume acknowledges their usefulness and limits them to being nothing more than simple observations of repeated conjunction between two events. Further, he concludes that if there is no cause and effect, then our actions are not predetermined, and we enjoy true free will. At the end of the *Enquiry*, Hume pursues a number of tangential discussions. He argues that humans and animals possess similar capacities and methods for reason. He denies that any rational justification exists for belief in either miracles or most forms of religious and metaphysical philosophy. Although we can rationally justify our skepticism regarding the existence of an external world, that doubt destroys our ability to act or judge. The instinctual beliefs formed by custom help us get along in the world. As long as we restrict our thinking to relations of ideas and matters of fact, we are acting within the limits of reason, but we should abandon all metaphysical speculations as useless, impossible to resolve, and nonsensical. Analysis Hume seeks to explain our understanding of the world rather than try to justify our beliefs or prove anything. Here, he does not address the existence of necessary connections between events but states merely that we cannot know what those connections are. Ultimately, Hume argues for a mitigated skepticism. We have no good reason to believe much of what we believe about the world, but human nature helps us function in all the ways that reason cannot. However, we must limit ourselves by accepting that matters of fact are our sole source of true information. If past experience cannot teach us about the future, it becomes difficult to function on a practical level. Whether or not we can know of a necessary connection between two events is not worth arguing about. Similarly, Hume does not think we should spend time and energy on questions such as whether God exists, what the soul is, or whether the soul is immortal. He claims that because the mind is not meant to help us discover and define truths, we will never be able to come to any definite and rational conclusions about abstract matters. Hume is skeptical about his own explanation of why we cannot rationally make necessary connections between two events. He stops short of saying that it is impossible to predict future events based on past experience and explains only that we lack any solid reason to believe this is the case. Hume admits that, if we observe that one event repeatedly follows another, it is natural that we assume the two events will always occur together in this pattern. He also admits that we must necessarily make such assumptions to live our lives. Such assumptions are practical and useful but not completely reliable or passable as proof. We are wrong to justify these beliefs by claiming that reason supports them or that we can absolutely know that one

event causes the other.

## Chapter 9 : Hume, David: Causation | Internet Encyclopedia of Philosophy

*Best Answer: A 'relation of ideas' is a proposition which is mathematical or logical. It is rationally certain but tells us nothing about reality. A 'matter of fact' is a proposition which is empirically verifiable.*

He was an empiricist and believed that impressions and ideas were what made up the total content of the human mind. Impressions, he believed, were original thoughts. And ideas were what he thought to be poor copies of impressions. Hume believed that there are three principals of association: Resemblance is when something leads our thoughts back to the original experience. For example, looking through pictures of a family vacation. Certain pictures are most likely to remind you of an experience that you had forgotten you had " perhaps having drinks at a small bar, or the cute guy that helped you with your bags, etc. Contiguity of time and place can best be described as bordering the original thought or something that is causing an association in the mind. Had these events occurred somewhere else or not at all, you probably would have not remembered that you needed to feed your cat. Cause and effect, according to Hume, is when you gain knowledge through experiences. Like when you get a paper cut on your finger and you have a few moments to realize that your injury is about to get painful. You know that it is going to hurt because it has happened before and you have come to expect the same outcome every time. This is why Hume believed this principal of cause and effect to be the foundation of knowledge. Because if everything were arbitrary, one could never really claim that they have knowledge. In order to believe that cause and effect is the foundation of knowledge, one must agree that cause and effect is true. Hume recognized that he could not prove this conclusively, but he did believe that there were certain things that we should accept through two basis of ideas: Each have 6 main characteristics, which directly contradict each other. The six main characteristics of this basis are: To have analytic ideas means to have ideas that express a definition- for example, gold is an element. Knowable a priori is knowledge that is gained through reason rather than sense perception. Tautology ideas are ideas that are true no matter when they are said or who is saying them- for example, all bachelors are unmarried. Ideas that do not describe the world would be ideas such as the Pythagorean theorem, because the Pythagorean theorem only exists in the mind and not in the outside world. Lastly, ideas that fall in the basis of relations of ideas are usually uncontroversial, because they can be proved conclusively listed in the 4th trait. The six characteristics of matters of fact are: Synthetic ideas are ideas that do not express a definition- for example; Becky is wearing a brown sweater. Ideas with knowable a posteriori means to have ideas based on sense perception. You only know that Becky is wearing a brown sweater because you perceived it. Ideas that are not tautologies are ideas that are not always true they depend on who is saying them and when, for example- Becky may not always have a brown sweater, and today may not always be Wednesday. Ideas only known with probability are ones that cannot be proven conclusively, and Ideas that describe the world are ones that exist outside of the mind- like the brown sweater as opposed to the Pythagorean theorem. Finally, the last characteristic of matters of fact is that they are controversial. All matters of fact seem to be based off the principal of causality. This is primarily because the characteristics are all based on sense perception, and this most likely because Hume was an empiricist. For example, the characteristic of knowable posteriori is probably the most obvious because it directly states that you only know it is true after you perceive it. Other obvious characteristics that reflect the principal of causality would be that they describe the world and that they are usually controversial