

ACTUALITY AND POTENTIALITY

These pages will attempt to explain certain concepts which many of our readings presuppose as already understood, especially the concepts of substance and accident, matter and form, and essence and existence. It is not enough just to understand what the meanings of these words are, however; what is important is why those who use them think that they do apply to the world of our experience. I will try to make that clear here. On the other hand, the relevance of these concepts may not be understood merely from what is said here but hopefully will gradually become clearer through the other readings.

Here is a passage from Lord of the Flies:

Ralph (the leader) turned to the chief's seat. They had never had an assembly as late before. That was why the place looked so different. Normally the underside of the green roof was lit by a tangle of golden reflections, and their faces were lit upside down - like, thought Ralph, when you hold an electric torch in your hands. But now the sun was slanting in at one side, so that the shadows were where they ought to be.

Again he fell into that strange mood of speculation that was so foreign to him. If faces were different when lit from above or below - what was a face? What was anything?

Ralph moved impatiently. The trouble was, if you were a chief you had to think, you had to be wise. And then the occasion slipped by so that you had to grab at a decision. This made you think; because thought was a valuable thing that got results...

Only, decided Ralph, as he faced the chief's seat, I can't think, Not like Piggy.

Once more that evening Ralph had to adjust his values. Pigg7 could think. He could go step by step inside that fat head of his, only Piggy was no chief. But Piggy, for all his ludicrous body, had brains. Ralph was a specialist in thought now and could recognize thought in another.
(Italics mine.)

Ralph and Piggy are two of a group of young boys stranded on an island. And in this passage the author is describing the

ACTUALITY AND POTENTIALITY - 2

first moments of an adult intellectual life in Ralph. The sign that a genuine intellectual life has begun to develop is the penetrating nature of the question that poses itself for him, what is anything. A stupid question? Perhaps, but it has a definite meaning specified by the context, given all the differences between various faces and between various states of the same face at different times, what, if anything, makes them all faces or makes any one of them the same face that existed yesterday. The question can be generalized to include everything we experience: what makes it possible for things to be both the same and different or to remain the same while undergoing variations.

Are these questions irrelevant? Perhaps, but there is a reason for suspecting the opposite at the outset. There are no more pervasive features of the things we experience than the facts that they all result from changes to what went before them and that we can everywhere find points of similarity between otherwise distinct things, e.g., both men and baseball diamonds take up space. So the togetherness of sameness and difference, which is what our question refers to, is an absolutely rock bottom aspect of things. Until we find out otherwise, it would appear that questions under which the question "what makes all faces" falls as a specific example are very significant even though we may not completely understand that significance. It is because the "problem of the one and the many" strikes at the very heart of the existence of all things including ourselves, that the author can rely on it to show the reader that Ralph's intelligence is beginning to mature.

ACTUALITY AND POTENTIALITY - 3

The raising of the question of how sameness can exist in the midst of difference also marked the beginning of western philosophy. And the concepts we are trying to understand were developed in the attempt to solve that problem. The problem is illustrated both by change, e.g., the fact a man remains a man throughout any number of variations, and by the multiplication of a common characteristic in many distinct things, e.g., many different individuals are alike in being men. But the best way to approach the ideas we are interested in is to start with change.

I

First, change obviously requires difference if a new state of affairs does not exist, a change has not taken place. So what exists after the change must be different from what existed before.

Not as obviously but just as importantly, change also requires sameness; if nothing remains the same throughout the change, no change takes place. Why? Suppose someone claims that the following change did take place: the man lying over there on the beach has gone from being pale to being sunburned this afternoon. That claim would not be true but would be simply false if the following were what occurred: at one time a pale man was lying in that spot., but he was annihilated, simply taken out of existence by God, and at the same instant God put in his spot a man looking just like him except that he was sunburned. On this admittedly far-fetched hypothesis, it would not be true that the man lying over there underwent the change of becoming sunburnt where he was pale earlier today, nor would it be true that the man who originally was lying on the beach underwent that change.

ACTUALITY AND POTENTIALITY - 4

Instead of change, what we would have here would be creating and annihilation. Creation means being brought into existence out of nothing, i.e., not out of an alteration in something existing already; and annihilation in this context means that nothing is left over. Now although these are not changes, there is change present in the situation used above as an example of creation and annihilation, but not the change that was claimed to exist. For we could speak of a change in what filled the space occupied by the two men. But we could do this only because we were taking the space as something constant which underwent the change. So this only further illustrates the point that for change, as opposed to creation or annihilation, to occur there must be something remaining the same.

What remains throughout the change is called the subject of the change, that which undergoes the change. And another condition necessary for the existence of change is that the state the subject is in after the change, e.g., sunburnt, be related to the state it was in before the change as act to potency, as fulfillment to capacity for fulfillment. In other words, in order to become the subject of a change, a thing must be potentially, must have the capacity to become, what it will be at the end of the change. Neither a child nor a puppy is actually a mathematician; but unless the world is very much different from the way we think it is, children have the potentiality to become mathematicians and puppies do not. As a result, the change from not knowing to knowing mathematics occurs among the offspring of humans but not among canine young. In general, A becomes B only if A can become B.

Further understanding of what is necessary for change will depend on understanding the different kinds of being that can

undergo change and can come into existence through a process of change. The most general division of kinds of being is the division into accident, that which exists in another, and substance, that which does not exist in another. Color, size, and shape are examples of realities which do not exist in themselves but must be the color size and shape of something else; they are accidents in the sense in which we are using that term. Likewise, mathematical ability is something we do not encounter existing in itself. It must always belong to something.

It is easy to point to examples of accidents, but not as easy to point to examples of substance. Is an individual man a substance? Or is human nature something which does not exist in itself but is only a quality produced by the accidental conjunction of more basic units? But not being able to point to definite applications of the concept of substance would not prevent someone from being certain that the concept must have some application. Someone denying the existence of anything answering to our definition of substance would have to hold to the existence of an infinite chain of accidents which exist in other accidents; and if that were the case, why couldn't the infinite chain be described as "something which does not exist in another"?

In addition to there being arguments to the effect that there must be something answering the description of substance, there are arguments that specific kinds of being we experience must be substances. For instance, it can be argued that the difference between men and animals cannot be explained by accidental modifications accruing to some nature other than human nature or animal nature. For instance, the difference between one human who is capable of carrying a tune and another human who is not so

ACTUALITY AND POTENTIALITY - 6

capable can be explained as an accidental modification of one and the same underlying nature but can the difference between a being that has the power of reason and a being that does not have the power of reason be explained the same way? Unfortunately, the arguments in favor of a specific nature, say human nature, not being something which exists in another are much too complex to present here. In what follows, however, I will assume that I can use men as examples of substances. Since I cannot offer evidence of this here, I am strictly speaking not logically justified in doing so. But I think I am pedagogically justified in doing so since, as a matter of fact, we do not think of what we are as being something which merely modifies a more basic reality.

Accidental change is change in which the reality brought into existence through the change is something which exists in another. Ultimately, the subject of accidental change - that which remains the same throughout the change and which before the change was only capable of possessing this accidental modification - must be the substance in which the accident inheres. The substance is the basis of the continuity needed for change and the difference is on the level of accident. Before the change the substance had the potentiality to become a thing with this accidental modification as before being educated a child has the potentiality to become a mathematician. But before the change, the substance was actual in other respects. This is important. If the substance were not actual in some way before the change, it would not exist; nothing is an actuality if existence is not, for without existence a thing can be actual in absolutely no way whatsoever. And unless the substance existed before there would

be no change but creation out of nothing as we have already seen.

So much for accidental change. What if the reality resulting from a change is a substance? What would the subject of such a change be? It must be something potentially a substance; but something potentially a substance must be something which is actual in no respect whatsoever. Why? There are two and only two possible ways of being an actual reality, either as a substance or as an accident. The subject of substantial change is not a substance since it is potentially a substance; what is only potentially something strictly speaking is not it. And for the same reason the subject of this change could not be an accident or a group of accidents; for where accidental reality exists, substance must already exist. But there are no possibilities other than what exists in itself or what does not exist in itself. The subject of substantial change is neither of these; therefore, it is nothing actual.

Another way of seeing the difficulty is to remember that the subject of change is that which remains throughout the change and exists at both ends of it. Should something actual in anyway remain throughout the change, the new reality which the change brings about would be something modifying something else already in existence. In other words, the change would fulfill all the conditions of an accidental, not a substantial, change.

Another way to see the difficulty: to be in potency- in regard to being a substance is to be in potency- to that kind of being which must exist first, before any other kind of being can exist. For the only other kind of being is accidental being; and accidents must exist in substance. So what is in potency to being a substance must possess no being of any kind.

But what possesses no being of any kind, what is actual in no way whatsoever, does not exist and cannot exist; for existence is a state of actuality. So a subject of substantial change cannot exist. And if all change demands a subject remaining throughout the change and which is potentially what will come into existence as a result of the change, it seems that substantial change does not take place. If substantial change does not take place, the modes of being that come into existence as a result of change are not substantial modes of being. So what it is to be a man, for instance, is either an accidental mode of being or men do not come into existence as the result of processes of change in what existed before them in which case birth control pills would be unnecessary.

As a matter of fact, there is a way out of this problem. Some might want to say that the way out is simply to recognize that it is a pseudo-problem resulting from playing with words like "potency", But it is not simply a matter of words that all of the things we experience have resulted from change and are themselves subject to change. Nor is it a matter of words that many aspects of the reality we experience must be described as not existing in themselves but as existing in others. These are basic facts of experience the difficulty with which is not that they are concealed but that they are so omnipresent they can escape our attention. And the same is true of the necessity of potency for change. It is not a matter of words that children are capable of becoming mathematicians though puppies are not. And if there is not something already existing which has the capacity of becoming B, B may come into existence as a result of pure creation but not of change. The solution to the problem cannot deny these things.

As an approach to the solution of the problem, it will be helpful to introduce some new terms. "Form" refers to that in the result of any change which causes the difference between the result of the change and what existed before the change; it is what differentiates the subject of the change as it exists after the change from the subject of the change as it existed before. The word "form" is used for this purpose because the original philosopher who worked out this theory of change discussed change in terms appropriate to the changes by which humans produce works of art. Think of the making of a statue out of clay. The one and only thing which distinguishes the clay after the sculptor gets through with it from the clay before is the shape, the form, the sculptor's work produced there. "Matter" refers to the subject of any change. Although this use of "matter" is different from its common meaning of what occupies space and time, it is not different from another common meaning found in statements like "Allie wasn't a bad coach; he just didn't have good material to work with," or "I did not become a good writer until I learned how to organize my material".. In this terminology a form, say redness, makes some matter, say a leaf, which otherwise is only potentially red to be actually red.

Since it is always because of the form that the matter becomes actually something, say X, the matter cannot be said to be X in and of itself or because of what it itself is. Rather it is X because of something not the same as itself, the form of X. The form can't be the same as the matter because at one time the matter existed without the form. With this in mind, the problem of substantial change can be solved.

To say that there is substantial change is to say that there is a matter which in and of itself has no actual characteristics; but this does not deny that it can have actual characteristics as a result of being united with something other than itself, a form of some substance. In that case the matter is not merely potential; it actually is something, some substance. But it is not some substance by or because of itself but because of a particular substantial form which makes it that substance. But if some form actualizes it and makes it a substance, the matter of substantial change - called prime (first) matter - can exist since we are not then faced with the contradiction of something existing with no actual characteristics.

And once a substance composed of prime matter and substantial form exists, there exists something capable of becoming any other substance which can result from change. It is not the composed substance itself which becomes other substances; it is part of that substance, the matter, which is so capable. And that matter exists because it is one substance, say substance A. But because this matter is nothing but a potency in and of itself, it is potentially other substances, say B, C, or D. Assume the changes from living tree to dead tree, from dead wood to coal, from coal to diamond, are substantial changes. They would take place only because prime matter, a pure potency, at one time existed because it was made actually a tree by the substantial form of a tree, then made actually wood by some other substantial form, then coal, then diamond.,. Note that accidents such as size and shape may remain in existence throughout such changes. If so, it is because they are at one time supported by one substance, at another time by another substance, etc.

The upshot of this reasoning is that we have a partial answer to Ralph's question "What is anything?" in regard to the things, including ourselves, making up the world we are familiar with. Since the substances in this world come into existence through processes of change, what they are is a composition of two co-principles which we have called prime matter and substantial form. The first of these principles is featureless and inert; it is purely potential, i.e., a principle of pure receptivity, of determinability. The other principle, substantial form, gives the things we experience their specific determinations and features; different substantial forms will account for the wide variety of characteristics marking off the different kinds of substances in this world from one another. The form will account for the presence of intelligible features in things and for their possession of meaning, beauty, fascination, etc.

Neither of these co-principles can exist apart from one another. They are not full-fledged beings; they are principles of a certain kind of being, changeable being. If matter did not receive a new form when the old form ceased to exist, it would cease to exist also. Note that matter is intelligible only in reference to form. This is true of any potency; to understand a potency as such is to understand it in relation to its corresponding act. That is what "potency" means, a capacity for act. And a specific potency such as prime matter is understood with reference to its specific act, substance and the principle of act, form, which brings substance about.

Again, what changeable things are, the essence of things that can come to be and cease to be by change, is such a composition of such principles.

"Soul" has traditionally meant the principle of life, the source whose presence or absence explains the presence or absence of life in things. Since the substantial form is the ultimate explanation of whatever characteristics are present or absent in substances, the soul of a living thing is its substantial form. But there are different kinds of life. The life of plants is manifested in nutrition, growth, and reproduction. All three of these functions are found in animals; but animals also have sense powers. Human life exhibits functions similar to those found in plant and animal life but also exhibits rational activity which is not found in the other kinds of life. Because of this, Plato thought there must be one soul in plants, two in animals, and three in men: one soul for each generic type of life. But this would reduce men and animals to a plurality of things, a plurality of substances, accidentally combined.

There is no reason why one substantial form, say an animal's, cannot account for the existence of functions generically the same as those springing from another substantial form, say a plant's, and at the same time account for the existence of a being with other types of functions as well. When this occurs, philosophers speak of a lower form being virtually present in the higher form. The terminology is from the Latin virtus, power; so the lower form is included in the power of the higher form. That is, the higher form has the ability to make present in matter the same kind of thing as the lower form but it also has the ability to make present more than the lower form.

The reason this notion of virtual presence is important here is that it explains how a substance such as a man can be one substance, and not an accidental unity, even though he is obviously

composed of things, molecules, and atoms, capable of existing apart from the man. Such things may themselves be individual substances before or after being part of a man without the man being an accidental unity of individual substances. Since the being of man implies such a composition, the substantial form of man must bring about such a composition; therefore, it must include virtually the substantial forms of the parts it composes. For example, water may exist and have its own form or may exist by a higher form just as a vegetative function such as nutrition may exist because of the form of a plant or because of the form of an animal.

Much more could be said about this theory of change. Hopefully this introduction will serve our purposes. But may I suggest two lines of thought that may be interesting to pursue:

Clearly, prime matter and substantial form are things that cannot be represented in our imagination as can the things they explain. Try to picture pure potency, for instance. Yet we arrived at these notions by analyzing something easily detectible to our senses, change, and using notions acquired from our experience of change. There is an old saying that nothing is in the intellect that was not first in the senses; and from what other origin can we draw our ideas about the world? But the case can be made that this, saying is true of the notions we have arrived at here even though they are entirely beyond the level of delectability by the senses or representation in the imagination. Does this not say something about the power of the human intellect and about what it can do with what is given it by the senses? Does this not also raise problems about how it is capable of doing it? If this says something about the intellect, does it not say something about man and his relationship to being; for the primary

way we are related to things is by means of sense and intellect. Other ways of relating to things, e.g., love and hate, presuppose our awareness of these things. Even though everything is based on sense awareness, we are capable of being open to reality in a much broader way and to a much broader and deeper reality.

Another thing to think about is the difference between this way of approaching changeable things and the way of science; for if we describe the objects this analysis is trying to understand and the object of scientific analysis, the descriptions will be very similar. Both are trying to understand the world of change and alteration in terms of what makes the existence of the kinds of things populating this world possible. Every scientific experiment involves change of some kind; and the scientist seeks statements concerning why these specific results of change occurred and will occur in the future. What else are laws of motion than this, and what else are concepts like energy, momentum, acceleration than concepts of features associated with the existence of physical changes and of the things susceptible of such changes.

The theory we have presented, called the hylemorphic theory or the matter-form theory, also tries to account for the existence of physical change and things that change. But would one expect some scientific experiment to prove this theory? On the other hand, how could any experimental results disprove it? And why should we want experimental confirmation if the arguments presented here are correct? But if philosophy and science can deal with the same realities as their subject matters, what is the difference between them? Why is it that two such different types of analysis can cover the same ground? And what precisely is it

that philosophy does that science does not, and vice-versa. Is there or is there not any relation of the hylemorphic theory to the atomic theory? Both try to state the structure of physical things. Does one contradict the other? Not if the experiments which confirm the atomic theory do not disprove the existence of substantial forms.

Such questions again raise the issue of the power of the human mind in terms of the kinds of knowledge it is able to get about what is.

II

The same principles, prime matter and substantial form, account for the fact that different individuals can have similar characteristics, which is the other part of the problem of the one and the many.

It is a fact that the individuals we experience fall into species and that different species can be subsumed under a genus. How can this be? The structure of any one of these individuals must account for both the fact that it is distinct from every other one of them and also for the fact that it possesses characteristics in common with all the rest. And the reason why one individual is similar to others cannot be the same as the reason why it differs from them. Joe is this man. If what makes Joe a man were exactly the same as what makes Joe this man, then for anything to be a man would entail its being Joe, this man; for what makes Joe a man is what makes Joe like any other man. In general, opposite effects cannot have the same cause.

Concerning this problem, some things should be reasonably clear. First it must be solved at the level of the internal constituents of the being of these individuals, for that is where

the union of similarity and difference occurs. Second, what many individuals have in common, what is multiplied by the existence of many individuals, falls under the heading "actuality". It is a matter of positive characteristics and determinations. There are many men, many red things, many kinds of trees, etc. Third, potency is a principle of restriction and limitation. This last point probably needs a little more reflection than the first two. What it means is that a thing cannot be any more than it has the capacity for being. One glass will only hold so much water because it can only hold so much water; a certain horse will only run so fast because it has the capacity to run only so fast. There are more subtle illustrations of the principle, however. The same heat can produce different effects, e.g., burning and boiling, in different things, e.g., solids and liquids. This difference in effects results from the different capabilities, of the things acted upon; and it amounts to a restriction or limiting determination of the action of the heat in the sense that, in itself, heat can produce many effects.

Now since what is multiplied in the case of individuals within a species are actual characteristics, what accounts for the similarity of the individuals must be a principle of act; and what causes the individuation of this multiplied act must be the only remaining possibility, a principle of potency. And this is reasonable since potency is a principle of restriction and individuation can be looked at as a form of restriction. For a multipliable common nature such as the nature of man can only exist as the nature of that individual man, and that individual man and that individual man. Yet in itself, human nature cannot be confined to being the nature of that man that man. If in

itself, it was the nature of that man or that man, it could not be the nature of that man and that man, it could only be the nature of one individual. So, being the nature of that individual man constitutes a form of restriction relative to human nature as communicable to many.

So, for a nature to be multipliable as is human nature, it must be a composition of act and potency of the kind we have already seen. When an individual of such a nature exists, it will be like others though distinct from them because it is a union of matter and form. It is like others because the kind of act accounted for by its form is similar to the kind of act accounted for by the forms of other individuals. Yet it is distinct from them because its form is actuating a matter which restricts the actual features to being the features of this individual. Think of the matter as something selfish and grasping for itself, and you will have the exact idea; it grasps for itself because it has nothing and by receiving actuation by the form, it claims the result as its own.

In the last section, we tried to explain how matter can never exist without being actual, and yet in itself is a pure potency which is actual only because of something other than itself. There is a corresponding truth regarding the form. It cannot exist without being this individual form or that individual form; but it is not individuated in and of itself. It is individuated by its correlative principle, the matter; remember neither of these is a thing on its own. They are principles of being, having existence only in union with one another within the being of which they are the principles. The idea of form not being individuated of itself, although never existing without being this

individual form, may be hard to grasp; but it is essentially no more difficult than the idea that prime matter has no actuality in itself, although it never exists without being actual. The following example should make this whole analysis clearer.

Efficient causes produce their like. This is universally true in the minimal sense that to cause something is to communicate act to it, and an efficient cause can function as a producer only because it is actually something itself. But it is not true universally that what the efficient cause communicates to its effect will exist in the effect in the same way as it exists in the efficient cause; rather it will be received in the effect according to the potency of the effect to receive it, as we have already seen. However, in some cases there is a clear and strong resemblance between what exists in the effect and what exists in the cause. Think of the shape of a cookie-cutter, for instance; and think of the shape that the cutter will produce in the cookie batter. In a case like this, we can speak of the form of the effect pre-existing in the cause and have at least a general idea of what this means. The pre-existing form in the cutter is the principle from which various parts of the batter will then receive a similar shape. Furthermore, the form pre-existing in the cutter is an individual form. But although it is individual, that form which is the source of the form of the cookies is not restricted to being the source of this individual cookie or this individual cookie or this individual cookie. The form is restricted by its own matter, but it is communicable to all the parts of the batter that can receive it.

On the other hand, the form of this individual cookie is the form of it and no other; the same is true of the form of that in-

dividual cookie. And what renders these forms individual is clearly the potency that receives them; for the batter is potentially shaped and becomes actually shaped when the form is communicated to it by the cutter. The cutter communicates the forms; and the forms that come into existence by means of it will be individual forms; for the only kind of forms that can exist are individual forms. But the cutter would be powerless to produce forms unless there was the batter to receive its action. This illustrates perfectly why forms are not individuated of themselves, even though they never exist without being individuated. The cookies would not exist unless the batter was there to be shaped by the cutter. More batter, the potency, the more cookies are possible; the less batter, the fewer the cookies. And that illustrates how potency is the principle of the multiplication of beings having similar features by being a principle of reception. The more subjects there are to receive a multiplied act, the more it can be multiplied, because it is precisely by being received in a subject that it is individuated and therefore multiplied.

Praise God for simple examples. The cookie cutter example is perfect except for one qualification; it concerns an accidental rather than a substantial mode of being. And that does not really create any additional problem'. The first thing established in this section was that the explanation of different individuals having similar characteristics involved the association of different principles in the make-up of the thing. If both of the principles were principles of act, what was multiplied must be an accidental mode of being for the reasons we saw in the last section. Substance is the first mode of actuality; so if act of any kind exists, substance must already exist. Likewise, the con-

junction of two things actual in any respect must be accidental since by hypothesis it does not exist in itself – a conjunction exists in dependence on the conjoined parts – but exists “between” others. So one of the principles accounting for the existence of many individuals whose mode of being is that of substances of the same kind must be something possessing in itself no actuality whatever. Since nothing can exist without being actual somehow, the other principle must be able to raise the first out of the state of total featurelessness. In other words, the same arguments which show that the principles of substantial change are what we have seen them to be also apply to the principles which are needed to account for the existence of many individuals of the same species.

It follows that when we look at an individual, this man or this tree, and abstract from our experience an idea applicable to many individuals, “man” or “tree”, what we are doing is grasping what these individuals are insofar as they result from the causality of their forms rather than of their matter. We are not, however, grasping the form alone, but the nature insofar as it is caused by the form. The reason for this is that we cannot say Joe is his form; for he is a union of form and matter. What we say is that Joe is a man; and because his nature is composed of matter and form in the way we have described, he has similarities with others that can be grasped by means of a universal idea applicable to the others.

(Be aware, however, that sometimes the word “form” is used to refer to the essence or nature as a whole, rather than to refer to a part of the nature as we have been using it. When this occurs, it is always the nature as grasped by a universal and abstract idea that is being referred to; for instance, “humanity” and “treeness”

are sometimes spoken of as forms. Also when this occurs, it is always understood that the nature considered abstractly is being contrasted to and related to the individuals falling under it as something possessed by these individuals which makes them what they are. Thus, all individual trees are trees because they possess the features defining treeness. The reason for this distinction is the fact that the individual thing is the subject of many accidents which do not belong to nature of the thing since it is communicable to other things without these accidents. So the thing is conceived as a subject possessing both its universal nature and all its accidents. Since the individuation comes from matter and the common features from the form, the common nature as contrasted to the individual subject became referred to as the form. By the way, you will also find the subject we are talking about here referred to by the Latin suppositum. Notice also that in attempting to solve the problem of the multiplication of individuals possessing a similar nature, it would have done no good to appeal to accidents as the cause of individuation. An individual accident can exist only because an individual substance exists for the accident to exist in.)

One of the most important applications of the theory that the individuation of members of a species results from prime matter concerns the nature of human thought and, therefore, of human existence. The idea is that since prime matter causes things to be individuals, the subject that performs the operation of thinking with universal concepts cannot be composed of matter and form. If prime matter entered into the make-up of the subject of general concepts, all accidents of that subject would have to be characterized by individuality as are any features, accidental or substantial,

characterizing material things. But at least one accident of man, intellectual thought, is characterized in some respects by universality. How can this be since man is composed of form and matter just as is anything resulting from change or falling into a species? It is possible if intellectual thinking is an operation belonging directly to the form of man and through the form to the whole, as opposed to other operations and accidents which belong not directly to the form, but to the substance which results from the union of matter and form. If the form alone is forming ideas rather than the whole resulting from the union of matter and form, these ideas can be universal because the principle of individuation, prime matter, is not part of the direct and immediate subject in which this process goes on.

I have presented this argument only in a very sketchy fashion. But even if it were fully developed, it would remain as abstract as it appears to be here. That aspect of the argument doesn't please me anymore than it pleases anyone else; this does not detract from the philosophic importance of the argument, however; Mortimer Adler (of Playboy fame?) has recently published a book containing a lengthy survey of different positions on the question of whether man differs essentially from other animals. One of the ways people sometimes try to establish the difference is through the fact that man is conscious. Adler concludes that the only feature found in human consciousness that could possibly lead to the conclusion that human consciousness is essentially different from that found in animals or possibly reproduced by a sophisticated computer is the presence of universal concepts, concepts expressing what more than one thing is. Further, his survey concludes that the only way of establishing an essential difference

—
between beings capable and beings not capable of knowing by means of universal concepts is the kind of argument presented here, through the fact that where matter is present, individuation is present.

The argument is important for one other reason. It provides the basis for the only line of thought, as far as I know, which anyone today takes seriously as a proof for the immortality of the soul. Recall that the soul is the substantial form of the living thing. So when we say that the immediate subject of intellectual knowledge is the form, we mean that understanding is an operation belonging directly to the soul. But things act according as they are actual; that is, their operations follow from the kind of being they have. Therefore, if the soul is capable of some operation on its own, it must possess existence on its own and independent of the matter to which it is joined. So the soul need not cease to exist when its union with matter ceases. Further, as something which itself is a pure form and not in itself a composition of matter and form, the soul cannot cease to exist through a change of any kind. This does not disprove the possibility of the soul's ceasing to exist through annihilation rather than change. But if there is a God Who created the soul, it is at least strange that He would create, something capable of lasting forever, but for a special act of annihilation on His part, and then not allow it to last forever.

To say that the soul has some existence independent of the matter to which it is joined is not to say that there are two existences in man. Matter never has any existence on its own; so the union of the soul and matter simply amounts to the matter's sharing in the existence belonging to the form. Still, the situ-

ACTUALITY AND POTENTIALITY - 24.

ation is different in the case of other things composed of matter and form; for in them the existence does not belong to the form and then to the matter, but belongs properly to the whole composed of matter and form, the form not possessing an existence on its own apart from the matter. Only in man would it be a case of the form communicating an existence it has to the matter.

These references to existence, however, raise new questions.

Actuality end potentiality p 24a

Apparently my cookie-cutter example needs some further clarification. It was chosen to illustrate several points and perhaps that is the problem. It illustrates that the principle of similarity between distinct individuals is a principle of act and the principle of dissimilarity is a principle of potency. Let's say the cookies we are talking about are in ginger-bread men. The specific similarity we are focusing on is the shape. No doubt these two cookies are similar in other ways as well; for instance in each case the dough is made out of similar components. But we are subtracting from these other similarities for the sake of simplicity. One similarity will do; for the problem is essentially the same whatever kind of similarity we are talking about. If we find the solution for this one type similarity, shape, the solution will have to be of the same general kind for any other similarity between the things.

Turning to the principle of dissimilarity, the dough, think of it before it is cut into shape as being spread out flat on a pan. That dough spread out on the pan constitutes potential gingerbread men; and the more dough you have the more potential gingerbread men you have. To increase the number of ginger-bread men you will get you must increase the amount of potential gingerbread man that you have. This illustrates how potency operates as a principle of multiplication, i.e., a principle allowing us to multiply the number of individuals that will have in common the characteristic of being ginger-bread men. In other words

Actuality and potentiality p 24b

the potency allows for the differentiation of things having a common characteristic so that there may be a plurality of such things. And one proof of this is that to increase the plurality we must increase the amount of potency.

In addition to being potentially cut and shaped into a number of ginger-bread men, the dough of course has many, many actual determinate characteristics. Again we are abstracting from these for the sake of simplicity and for the same reasons mentioned above. These determinate states are simply actualizations of previous potencies, likewise they are features which are or can be possessed by a number of distinct individuals. So the same general kind of problem requiring the same general kind of solution will arise in each case. For the sake of simplicity we focus on the shape. From this point of view, the dough, before it is cut and separated into parts by the cookie-cutter is potentially so cut. And as different parts of the dough spread out on the pan go from potentially being separated from the rest and cut into the shape of a man, to actually be separated and shaped, we get individually distinct ginger-bread men having similar shapes. And they are different from one another even though they are similarly shaped because their shapes are forms received in distinct parts of the dough.

Another point made by the cookie-cutter illustration is that the form that will come to exist in the cookies pre-exists in the

cutter. This will be true in some sense of all efficient causes; they all communicate a form or mode of act that already exists in them in some way. But while it is not obvious in many cases how this principle works, it is rather obvious in the case of the cookie-cutter. And another important point is brought out by the pre-existence of the shape in the cookie-cutter.

Notice that the cookie-cutter and all the forms inherent in it are individuals just as are the cookies that will result from the action of the cutter. But while the cookie-cutter and all its inherent qualities are individuals, the cutter is in no way confined to being the cause of this individual cookie or that individual cookie. And the shape of the cookie-cutter while being individual, is communicable to any number of different cookies. In other words form in itself is not individuated, is not confined to being the form of this or that. What makes it an individuated form is the fact that it is this received in this or that potency: In one case it is received in the cutter and is therefore this individual form, in another case it is received in a cookie and is therefore that individual form. Again the cutter in itself is in no way confined to being the cause of this individual cookie or that. What restricts the action of the cutter to causing this not that individual cookie is the part of the dough which receives the action of the cutter, the potency. In other words because the individual form through which the cutter acts is in itself communicable to many cookies, the cutter needs something

Actuality and potentiality p> 24d

outside itself the receptive subject, to explain why its action produces this individual or that individual form.

So the last thing that the cookie-cutter example illustrates is that form is not Individuated of' itself but in itself it is communicable to many. It needs a principle other than itself to account for it being restricted or confined to being the form of this or that, or, in other words, to being this or that form. This is not to say that form can ever exist without being this or that form; it must always exist as this or that form. But this means that a multipliable form must always exist with its co-principle potency; for it is due to the potency rather than to itself, it is this or that form. Similarly prime matter cannot exist without possessing some actual characteristics; but it possesses them not due to itself but due to its co-principle, substantial form. The idea that form is not individuated of itself although it never exists except in a state of individuation resulting from something other than itself, that idea is crucial to the explanation of how individuals can be similar and distinct at one and the same time. For if a form were this or that form because of itself it could not be a principle of similarity between different In individuals. Since a form is not this or that distinct form because of itself but in itself is communicable to many, the forms of two distinct individuals can account for the similarities between those Individuals. Again the governing idea is that opposite effects

—

Actuality and potentiality, 24e

cannot have the same cause. For Joe's form to be the cause of his similarity to Frank; the reasons why Joe's form is this particular form must lie outside of the form itself.

On the bottom of page 19, I try to indicate, too briefly, why it follows from the argument concerning multiplicity as well as from the argument concerning change, that substance is composed of a principle of actuality, form, and a purely potential principle, prime matter. We have seen that the explanation of different individuals having similar characteristics must be found in the fact that the intrinsic makeup of each of the things must involve an association of distinct principles. What if both of these principles were principles of act, i.e., what if neither of them could be described as purely potential? Then the characteristic whose multiplication results from the union of these two principles would have to be an accidental characteristic like redness or tallness or heaviness. And the reason is that the existence of the characteristic whose multiplication is being explained, the mode of actuality whose multiplication is being explained, would presuppose the existence of some prior mode of actuality, namely, the actuality of the principles whose union is explaining the existence of the new mode of reality. Thus substance is something already in act, an accidental form is a principle of further actuation for the substance. The union of the two results in the existence of a new accidental mode of being.

As we have already seen the existence of substance cannot presuppose the existence of any prior mode of act. So if the mode

of being whose multiplication we are trying to explain is that of a substance both of the principles brought in to explain, the multiplication cannot be principles of act. We know that one of the principles need to explain multiplication is a principle of potency. If in addition to being a principle of potency, it was in any intrinsic sense actual before its union with the other principle, its union with the other principle would produce an accident not a substance. In order for substance to be multiplied, the potential principle must possess no other actuality than that which it receives from the other principle; in itself it must have no characteristics whatsoever.

When one asks Ralph a question "What is anything?" from the point of view of the fact that what anything is is something both similar to and different from what other things are, one is raising what is classically known as the problem of universals or the problem of the one and the many. What we have given here is a partial solution to that problem; there is more to the problem than has been presented here. But it may clarify what we have done so far to point out that there are two correlative sides to this problem, two points of view from which the problem can be raised. The initial fact dominating both sides of the problem is the fact that the world of sense experience is composed of distinct individuals. Through our senses we encounter not humanity but individual men not redness but distinct red things. Given that the world is composed of distinct individuals how can

Actuality and potentiality p 24g

these individuals be similar to one another, how can similarities between them exist. That is one side of the question. Another way to put it is how can the answer to the question "What is it?" for any individual be the same as it is for another individual. The answer to these questions is found in the potency-act structure of what these individuals are. It is because a partial answer to the question "What is it?" for any Individual we experience is "a union of a principle of potency with a principle actuating that potency" that each of these things can be at one and the same time similar to and different from other individuals.

The other side of the problem of universals is how can similarities between things be known. If the world is composed of individuals how can our universal and general concepts give us the truth about what things are? We cannot utter a complete declarative sentence without making use of some word, such as "man" whose meaning is universal, unlike a word such as "Tom" whose meaning is individual. If our experience only gives us individuals, how do we get universal meanings and how do sentences involving such meanings give us the truth about individuals? Once again the act-potency structure of individuals gives us a partial answer to a problem which has more dimensions than we have presented here.

We must not say that a universal concept like man is a concept of part of Tom, namely, his form. We cannot say Tom is his form since that is only a part of him; but we can say he is a man. Man expresses the whole nature of Tom, but it does so from the point of view of that in Tom which derives from his form rather than from his matter. It expresses what Tom is insofar as what he is is something caused to exist by his form. What Tom is results partially from a principle which in itself is not confined to being the cause of what this unique individual is; therefore this principle is capable of being a principle of similarity between Tom and others with similar

Actuality and potentiality, 24h

characteristics resulting from similar forms. Tom's humanity is a unique individual humanity. But because form is one of the causes of his unique humanity, his humanity is similar to that of other unique individuals. When in our knowledge we grasp humanity as something with reference to which two individuals are capable of being similar, we are grasping what Tom is, his unique humanity insofar as the characteristics belonging to that humanity derive from Tom's form rather than from his matter.

This is what we do whenever we abstract ,i.e., whenever we focus on certain features of Tom, say his humanity, and leave others, say his height or the color of his hair out of consideration. Any Individual is an ensemble of characteristics in a particular combination that will never be repeated. The combination of features that makes anyone of us what we are includes our being in a certain place at a certain time, namely, the place you are in at the present moment, the exact position in space you occupy. Therefore it is impossible for any other individual to be characterized by the exact same combination of features that constitutes the total being of any one of us. Since the combination considered as a whole is absolutely unrepeatable, it cannot be the combination that is the object of our universal concepts. Universal concepts grasp repeatable features, otherwise the features in question could not be points of similarity between distinct individuals. Humanity can be repeated, can be found in more than one man; this unique humanity which is Tom cannot be repeated. So in order for our concepts to grasp aspects of Tom which can also be aspects of other individuals, our concepts must leave out of consideration some of the features that go into the unique combination that makes Tom what he is.

Our concepts must leave out of consideration some of the features that go into the unique combination of features that makes Tom what he is.

From Tom we can abstract a concept of man which also applies to Dick. In order to get such a concept we must leave out of consideration much of what goes into our experience of Tom since much of what is true of our experience of Tom will not be true of our experience of Dick. Tom may have blond hair for instance and Dick brown hair. If we don't leave the color of Tom's hair out of our consideration in forming the concept of man we will get the concept of a man-with-brown-hair; and this will not apply to Dick. In general the more data from our experience we leave out, abstract from, when forming a concept the more universal our concept will be. Man is more universal than man-with-brown-hair; it is more universal because it applies to more individuals. But man-with-brown-hair and blue eyes. The latter concept includes more of the data from our experience of a given individual than does the former. But for that reason it will apply to a smaller number of individuals. For each individual is a unique combination of characteristics; and as the number of characteristics increases, the chances of other individuals being similar to the original in all those respects decrease.

So to form universal concepts we must abstract from certain

Actuality and potentiality, p 24j

things given in our experiences and focus on only some of the things given in any experience. And when we do this, we are focusing on what an individual is as a result of its form rather than its matter. For it is precisely as a result of its existence in a certain individual substance (substance is the matter for accidental forms) that an accidental form, say redness, becomes part of an individual ensemble with many other forms, say height, motion, weight, etc. And it is precisely as a result of its union with prime matter that a substantial form becomes part of an ensemble with all of its individual accidental forms.

So the two sides to the problem of universals are how can similarities exist in reality outside the mind if external reality is composed of individuals and how can similarities be known, exist in the mind, if our experience gives us nothing but individuals. The last thing we mention on the original actuality and potentiality sheets concerning sameness and difference is the argument for the spirituality of the human soul (principle of-life) based on the way we know universals (based on the characteristics of our rational life, rational life being our ability to think with universal concepts). The idea is that rational thought must be performed by man's form alone, (i.e., the principle which accounts for the fact that in man matter is organized in such a way that human life is present in

Actuality and Potential, 24k

it) and not performed by the union of form and matter, i.e., the living body. Sight is performed by the union of form and matter; for it is performed by a physical organ, by matter organized in such a way that it is capable of the operation of seeing. No matter can be organized in such a way that it is capable of the operation of thinking with universal concepts. For if matter were an essential principle of the operation, the principle of individuation would be an essential part of the operation. And the operation would bear on individuals just as does the operation of seeing with the eye, or the operation of remembering objects previously seen, or the operation of constructing new objects in the imagination out of objects previously seen. All of these operations have individuals as their objects. In order for an operation to be characterized by universality, it will not do to say that the source of the very opposite of universality enters into the essential constitution of the operation.

So rational thought is done by men's form alone, not any result of the union of form and matter. So man thinks by reason of a part of himself, just as he sees by reason of a part of himself or eats by reason of parts of himself. But in this case the part in question is not a material parts matter does not enter into its makeup. So the human form must be radically different from other forms and the human soul from other souls. Our first example of form was the shape a sculptor puts in clay. Obviously It would be impossible for such a form to have an activity of its own. The shape doesn't do anything although the thing with the shape

might. Likewise in the case of plant and animal substantial forms. The soul of a plant or animal is the structure of the matter, the principle of organization accounting for the fact that the matter of a living thing as opposed to the matter of an inanimate thing, exhibits life functions. It would be impossible for a simple structure to have any activities on its own apart from that of which it is the structure; the way matter is organized has no ability to act independently of the matter. And the reason is that it has no reality apart from the matter; it has no independent existence. Its existence is that of a form for matter and its activity must be correlative to its existence. If it exists only as the way matter is organized or structured, it acts only insofar as the organized and structured matter acts.

The human soul, on the other hand, must be a principle for material organization and structure but it must be more than that. Its existence must not be confined to being merely that of the way matter is organized. It is that but it must also be more than that. For it is capable of an activity on its own, therefore its existence must be somehow independent of the matter with which it is united; its existence must transcend that of a mere structure form matter which has no existence apart from its union with matter. For it couldn't be apart from its union with matter, it couldn't act apart from its union with matter. The kind of action something is capable of can't be any higher than its level of being; a dog can't act like a man nor an amoeba like a dog because of their

Act and pot 24m

different levels of being.

This is the basic outline of the argument, the only argument anyone puts forward seriously today, that man has an afterlife which is philosophically discernable. The argument claims to show that the human substantial form is capable of existing apart from the matter since its existence is independent of the matter. What is of importance to us is the fact that this argument relies on the solution to one side of the problem of universals, namely, how can similarities between things be known. The other side is how can similarities exist. The solution to both sides of the problem relies on the act-potency, form-matter structure of things.

III

In the New York Times on Sunday, June 14, the author of the screenplay for the Movie M A S H, Ring Lardner, Jr., made some comments in response to criticisms of the movie. Here is one of them;

"People who sense an attack on religion per se were missing the point about the peculiar inappropriateness of religious sentiment in the combat zone. War is such a distinctly man-made institution, it seems quite unfair to involve God in it at all."

But does this defense really hold water? Lardner seems to be saying that religion may have a place but its place is not the battle field. On the other hand, most things that have gone under the name religion have claimed to be an explanation of the totality of life, to give the whole of our experience its meaning. Since religion makes claims like this, to find one aspect of life to which such claims do not apply no matter how exceptional that aspect of life may be is to make religion a lie, is to attack it per se. So the critics who saw in M A S H an anti-religious movie were correct; but this is not to say that the author or the director or anyone else intended it to be anti-religious. It is to say, however, that Lardner reveals a naive concept of religion, an unintelligent idea of the difference between being religious and being irreligious. Lardner has an idea of religion from which he draws the conclusion that M A S H is not irreligious. He is correct if and only if religion is the kind of thing one does on Sundays, for example, and forgets about the rest of the time. This may indeed be what religion is to many people; but few people are hypocritical enough to claim that this is what religion should be in theory.

I am not going to discuss religion any further. Lardner's statement also involves a concept of God. What I hope to do in the following pages is lay the groundwork for showing that Lardner's concept of God is just as questionable as his concept of religion. And what is true of his concept of God is probably true of the concept held by the majority of the people, although they certainly are not aware of it. The issue will not be whether Lardner or anyone else does or even should believe in God. The issue is whether or not we have an intelligent idea of the implications of the various alternative answers to the question of God. It would certainly be unreasonable for a teacher to demand of his students that their personal beliefs be of one specific kind, rather than another. It is not unreasonable to expect a college student to have an intelligent idea of what is at stake in the question of God, a question we all face.

To accomplish this end, I will first develop an argument for the existence of God. This is the most economical way to show what is involved in the concept of God; so please keep in mind that explaining the concept of God, rather than convincing you whether or not God exists, will be the primary purpose of the discussion. How the notion of act and potency relate to the discussion will become clear as we proceed.

The argument I want you to think about can be summed up in three steps:

(1) Everything we experience is caused. Things don't exist just by their own power but are brought into existence by other things and need other things to bring them into existence. Tables would not exist

unless there were carpenters, children unless there were parents etc.

(2) The need for a cause on the part of the things we experience cannot be satisfied by an infinite series of causes which are in their own turn caused by other things, as, for example, the table is caused by the carpenter who in turn was caused by his parents. Things aren't explained by a series that goes on forever without end.

(3) So things must come from a cause which itself does not depend on any other thing. There must be something which exists independently, without need of anything else to bring it into existence, which exists just because it is the kind of thing it is. And everything else must be brought into existence by this thing. What anything else is, is of such a nature that it essentially depends on the action of this other thing.

To consider step one, the unexpressed belief that things do have causes is such a fundamental component of our relationship to the world that it is difficult to focus on this belief for its own sake and thereby show just how fundamental it is. Picture a soldier returning home from a year at war and finding his wife visibly pregnant. Noticing the strange look on his face, she says "You don't still believe in the principle of causality, do you?" But why must things have causes; what is it about the events we experience that makes it necessary for them to be brought into existence by other things rather than simply existing on their own or just happening for no reason?

One common answer to this question is that it is the fact that the things we experience result from change that makes it impossible for them to be independent. Nothing gives what it does not have. Change is the actualization of some potency. Insofar as a thing is

in potency only, it is not something, it lacks that which it will become. Potency, in other words, cannot give itself act. Therefore a thing which results from change, being the combination of a principle of potency with some principle which actualizes that potency, cannot be the source of itself; it cannot be the reason for its own coming into existence. Nor do these statements, conflict with facts of everyday experience such as the facts that living things and machines move themselves. For something that is in potency in a certain respect, which is necessary if it is to change in that respect, is also actual in many other respects at the same time; so there is nothing to prevent something from being a cause, by reason of one part of itself, of a change to which it is in potency by reason of another part of itself. It still remains true that potency does not actualize itself and therefore is caused to change only by something not identical with itself. So change as such and things resulting from change appear to be essentially dependent.

Perhaps most people would be willing to admit that changes must have causes without going through all the verbiage about potency and act. Likewise most people would probably say that the controversial part of this argument for God is step two, the idea that an infinite series of causes can't satisfy the need that things have for causes. What I want to show you is the opposite. If you accept the idea that things which result from change, things which did not always exist, need other things as their reasons for existence, then it follows that an infinite series of causes which are in their own turn caused

cannot satisfy that need. So step one is the important part of the argument. And if step one is granted as necessarily true, then contrary to what people think when they first meet this argument, step two is not the weak link in the proof. What comes next will be an attempt to show why this is the case. Seeing why this is the case is important to our primary goal of understanding just what is involved in and implied by the concept of a God, that is, of some being which would be the reason for the existence of all other beings but would not itself depend on any other being, an uncaused cause. To understand this concept, we must see why, if changes necessarily stand in need of causes, no series of caused causes can satisfy this need.

First it must be understood that what is being said in step two is not that there could be no infinite series of caused causes. On the contrary, there could be such a series. What is being said is that even if there were such a series it would be insufficient to satisfy the need that things have for a cause. So we do not have to argue that any series of causes which are in their turn caused by other things is finite, that it must come to an end. In other words, we do not have to know that the world had a beginning; if time stretches back to infinity, it makes no difference to this proof for God. The idea that if the world comes from God, it must have had a beginning is a naive aspect of most people's idea of God which, although minor, we should get rid of. The essential question is this: Do causal relations necessarily involve temporal sequence so that the cause precedes its effect in time? There is no doubt that things that we consider to be causal relations often do involve

temporal sequence. The cause of the Vietnam War, namely, our preventing the 1956 election from being held certainly preceded its effect in time. No one denies that. The question is whether all causal relations involve such sequence. Assume you are holding in your hand a chain from which a medal is suspended. The medal is at a certain point in space at a certain time; it is caused to be at that point in space at that time; it is caused to be at that point in space rather than some other point in space by your hand holding the chain at the same time. This is a causal relation which is not temporal. Likewise you are now being held off the floor by your chair, if you are sitting. Or held off the floor below this floor by this floor, if you are standing. These are all non-temporal causal relations. Causality is not essentially a time sequence. Since an effect need not be after this cause, the world could exist eternally and eternally depend on a cause, just as the medal depends on a cause for as long as it is at that point in space. It is hard to imagine an eternal world; that has nothing to do with the logic of the situation. If you grant one case in which cause and effect can be simultaneous, you must grant they can be eternally simultaneous. The world can exist as long as God chooses to make it and that can be as long as you please.

No matter how logical and independent of authority we think of ourselves as being, appeals to authority are usually more convincing than appeals to reason. For those who were not convinced by the last paragraph, therefore, it should be pointed out that no philosopher in the last four hundred years would attempt to prove that the world had

a beginning; as a result, no philosopher who thinks he can argue for the existence of God considers his argument to depend on the world's having a beginning.

To show the inadequacy of an infinite series of caused causes, I want to use an example whose application to the problem will not be immediately evident but which should become clear soon. Some anthropologists concern themselves with such questions as how did the human beings originally arrive in the Western Hemisphere, or how did they get to such and such a place in South America. Notice that the answer to this question will not tell you how the human race itself came into existence; assuming that the human race exists, these questions ask how humans came to exist at a certain place at a certain time. Likewise we ask how they come to be various kinds of humans; how they come to be blonde humans, humans with type O blood, greedy humans, funny humans, republican humans, fat humans, etc. None of these questions ask how human nature as such came into existence but asked how human nature as having one characteristic rather than another characteristic comes into existence. And the answer to these questions give causes. Now what if someone said these last were the only causal questions to be asked about man? If these last are the only kind of causal questions relevant to human existence, then the existence of human beings as such would not stand in need of a causal explanation. Only the existence of human beings who were blonde, Republican or fat would stand in need of a causal explanation. The existence of a human being of a certain type or at a certain place at a certain time would be caused, the existence of men in so far as they are men

would apparently not need any cause.

The application to our problem is this. To claim that there is only an infinite series of causes of change all of which themselves are caused to exist is to deny that change, as such needs a cause, is to deny the principle of causality that was argued for above. Why? Because each cause in a series explains why a particular change takes place. It explains, in other words, why this particular change at this time, in this place, at this speed, etc. takes place. It by hypothesis cannot explain why change itself exists; a particular member of the series cannot explain this because its own act of causing a change was brought into existence by another change produced by another act of causing a change. So rather than explaining change as such, as opposed to a change of a certain kind, any member of the series needs the existence of change in order to be explained itself. Another way of putting it is that by definition any member of such a series is dependent on the existence of change for its very ability to be a cause of some particular further change.

Another example will bring out better the absurdity of this situation. Assume Arabs hate Jews. If so, we can ask why they hate Jews. For instance, we can ask why Omar hates Jews. One possible answer to this question would be that Omar's parents taught him to hate Jews. Now we have to ask why did Omar's parents so teach him. A possible answer to this question is that they likewise hate Jews. So we ask our original question again, this time with reference to Omar's parents: why do they hate Jews? Here let us introduce a different kind of answer. Let's say they hate Jews because the Jews kicked

them out of Palestine in 1948. This kind of explanation does something different from the first kind of explanation. Like the first kind, it explains why certain Arabs at a certain place at a certain time hate Jews; but it also explains why there is any hatred of Jews at all amongst Arabs, why hatred of Jews as such exists (explains why the universe includes Arabs hating Jews rather than many other things the universe does not include). To explain Omar's hatred of Jews by the fact of his upbringing explains why a certain Arab at a certain time hates Jews; or why hatred of Jews exists in a certain Arab at a certain time. But answering the question why hatred of Jews exists in a certain Arab at a certain time is not answering the question why hatred of Jews exists at all. If Arabs had existed eternally and each generation had taught the succeeding generation to hate Jews, we would explain why hatred of Jews continued in existence amongst Arabs from eternity; we would not explain why it existed amongst Arabs in the first place. So to say that the only kind of explanation for the existence of hatred of Jews in Arabs is the kind represented by Omar's being taught to hate Jews by his parents would be to imply that hatred of Jews as such didn't really need an explanation, wasn't something that was caused. The only thing that would be caused would be the transference of hatred of Jews from one generation to the next, not hatred of Jews itself.

The explanation of change by an infinite series of caused. cause2 of change is strictly analogous to the explanation of hatred of Jews by an infinite series of parents teaching children who will in their own turn teach children. The transference of motion is thereby explained, not motion itself; a given thing would be a cause of motion because something else moved it just as a given Arab parent can com-

municate hatred of Jews because someone else communicated the hatred to them. If a series of caused causes, no matter how long, were the only thing involved in the explanation of change, change as such would not be caused, change would not be essentially dependent, just as in our other examples the existence of human nature as such would not need a cause nor the existence of hatred of Jews as such. But the argument at step one claims to show that what the essential structure of change and of things that result from change is, as involving the actualization of a potential subject, makes change causally dependent. If that argument is correct, therefore, change as such is caused not just this or that kind of change or change in this place or that place at this time or that time; and things which result from change need causes because change itself is necessarily caused not just the passing on of change from one thing to another.

So if it is true that whatever comes into existence through change is necessarily caused, then the inadequacy of a series of caused causes even if infinite follows as a conclusion. So contrary to what it seems at first sight, step one not step two is the crucial part of the argument even though step one is something most people would accept without any hesitation and step two is not. The vast majority of philosophers who argue against proofs for the existence of God would attack step one, would deny the necessity of things having causes; they would say that maybe things just happen without needing anything to make them happen. (Think of our pregnancy example again.)

The up-shot of this complicated discussion is simply this. There is something that is uncaused. and in the last analysis anyone would

would admit this. It is not possible for the totality of reality, everything, to be caused; what would it be caused by? The only possibility would be something falling outside of the totality of reality; nothing. So there is at least something which does not stand in a necessary relation of dependence on other things such that it needs them for existence. As a result, the real question is what is this something like. Ultimately no one will deny its existence; so the real problem is, and the real point of difference among men, what is the nature of that which is uncaused, that which is independent; what are we supposed to understand by it? It might be, for instance, that we would want to say that the elementary particles of physics are the uncaused. Or perhaps we should conceive of energy as being uncaused. Perhaps space is the uncaused. Those who deny the necessity of causality and therefore admit the sufficiency of an infinite series could hold that this series itself is the uncaused. However, if everyone will admit the existence of something which is uncaused so that the real question concerns 'the nature of the uncaused, why go through the complicated argument we did go through to get to this conclusion? Why not just raise the question of the nature of the uncaused and go on from there?

If I knew some other way to show you that step one, the principle of causality, was the important part of the proof rather than step two the insufficiency of the infinite series, I would have used that way. My experience leads me to believe, however, that it takes a lot to get the opposite idea out of student's minds. And a correct understanding of the role of the principle of causality in this argument is essential for an understanding of what is going to be said concerning the problem

of the nature of whatever it is that is uncaused. And let us not forget that our central question is what is involved in and implied by the concept of an uncaused cause, that is, God. It was said at the beginning that this was the reason for our examining this argument for existence of an uncaused cause, namely, that it would be necessary for our examination of the concept of what an uncaused cause is. But perhaps there is a more basic question to be asked still, namely, why bother? Why is it worth going into such an abstract discussion of the nature of "something which is uncaused"? What difference can it make? Consider just two of the possibilities, that the uncaused source of things is, let us say, physical energy or that the uncaused source of things is a personal being. Some people, namely, existentialists, would claim that unless there is a personal God, which they deny, life has no meaning and is absurd. But whether or not the meaning of life depends on existence of a personal god, it would still, remain true that life in a world having a personal source cannot have the same meaning as life which has an impersonal source. Unlike life from an impersonal source, such as physical energy, life from a personal source would be designed according to a plan, would have a certain goal, would be supplied with definite means to achieve that goal. So the nature of "something which is uncaused" makes a big difference.

The discussion that follows hopes to provide the background for grasping a crucial difference between two different concepts of a personal god. Specifically, it will lay the groundwork for showing that Lardner-- and I think most of us--carry around with us a concept of God similar to the concept of an old man with a beard who is

watching us. Most of us recognize the foolishness of that notion; the question I want to raise is how different our notion of God is from that notion in the last analysis. For one thing, if the uncaused source of things is both personal and something superior to an old man with a beard, then he has a lot more to do with things like wars than we ordinarily admit: and it is not as easy to get God off the hook for things like war as Lardner and most of us think. But this discussion of two views of a personal god which I am leading up to will not presuppose that one already believes that there is a personal source of the universe and, therefore, merely has to decide which kind of personal source. I claim that both those who believe in God and those who do not believe in God usually have a poor understanding of what this means. Most theists don't understand the God they believe in, and most atheists don't understand the God they don't believe in. Again, we are trying to grasp the meaning of the very question of God.

Assuming for the purposes of the discussion that the argument for the existence of God given above is valid, then we know two things to begin with about God: that He is a cause; and that He is uncaused. All other knowledge we can acquire about God by the use of reason alone as opposed to revelation, therefore, must be derived from these two things. First we will see what follows from God's being uncaused.

About God we have knowledge of the form A is not B (God is not caused). This can yield further knowledge if we also have knowledge of the form every C is B. From this we can conclude that A is not C (every C is B, A is not B, so A is not C) And the principle of causality used in the proof is of the form every C is B (every change

and everything resulting from change is caused.) So we know that God does not come from change nor is He subject to change. But we know more than that. The reason change needs a cause is that it involves the actualization of a potential subject. So if the principle causality as presented here is true, then God is not composed of potency and act; if He were so composed, He would not be uncaused, which the argument shows Him to be, but caused. So the principle of causality leads both to the conclusion that there is something uncaused and the conclusion that this thing which is uncaused lacks any characteristics which would necessitate its being caused. The reality of the uncaused cause does not involve a union of act with potency, as does the reality of other things. Yet the uncaused cause exists on our assumption; so He is in act. Therefore He is pure act, act with no potency. A number of things follow from this conclusion. God is not a body nor is He anything material. If He were, He would be in potency and subject to change; anything material, for instance, is potentially divided into parts. There are no accidents in God; accidents require a substance which is potential in regard to them. So in God there are neither matter and form nor substance and accident, the two kinds of potency-act principles that we have seen. But there is another more important kind of potency-act distinction which we must discuss now.

We saw that matter and form and substance and accident were partial though necessary answers to the question "what is anything?" when anything is a result of a change, either substantial or accidental

When we know about something what it is, we know it' s essence. When we get to know what something is better than we knew it before, we get to know it's essence better. That is the definition of essence, namely, what a thing is or that which makes it what it is: what man is, a dog or tree is, math or biology is, hockey or bridge is, etc. But knowing the answer to the question "what is it?" is not the same as knowing the answer to the question "does it exist?" Many political liberals have asked themselves the question "has an honest feeling ever passed through the heart of Richard Nixon?" When someone asks such a question, he wants to know about the existence of something. But he already has some knowledge of what the thing he is asking about is or was or will be; if he didn't have some knowledge of essence, it would be impossible for him to be wondering about the existence of something with such an essence. So knowledge of essence is distinct from, though necessary for, knowledge of existence. The question arises whether to this difference of knowledge there corresponds some difference in reality. We can know the definition of concave without knowing the definition of convex; but in reality there can be no difference between that which is concave and that which is convex. Likewise it is possible for someone to know what the evening star is and not know what the morning star is and vice versa, also it is possible to be familiar with both without knowing they are the same star; but in reality, if not in our knowledge, there is no distinction between the Evening Star and the Morning Star.

There is a distinction between essence and existence relative to our knowledge of it. Is there ever a corresponding distinction in

things between that by reason of which they are what they are and that by reason of which they are something rather than nothing, namely EXISTENCE. Before answering that question completely some things should be clear. If there is a distinction in things between what the thing is and the fact of its existence, if there is a composition in things of a principle answering to the question "what is it?" and a principle answering to the question "does it exist?" -- as within a thing's essence there can be a composition of matter and form,— then existence is to essence as act is to potency; existence is a principle of act, essence is a principle of potency. The reason *for* this was mentioned back at the beginning: if to exist is not to be in act, . there is no such thing as being in act: So if existence *for* something is a distinct principle from what the thing which exists is. then the existence is a principle actualizing what exists, constituting it as actually something rather than nothing. What exists (essence), on the other hand, is something capable of existing (as opposed to round squares or triangles not equal to 180 degrees, etc.); what a thing is, essence, is a way of being something rather than nothing, a way of possessing existence. Another way of putting it would be that, if essence and existence are distinct, then they must be related to one another in a way similar to the way matter is related to form or substance is related to accident.

As a result we can know that in the uncaused source of things there is no distinction between what it is that exists and the existence itself of this thing. For if there were such a distinction then within this thing there would be a composition of potency and act;

therefore it would be caused and not the uncaused source of things. Something else would be the uncaused source and in that other thing there would be no distinction between essence and existence. The idea that potency cannot give itself act because nothing can give what it does not have is especially true regarding existence. For a thing to give itself existence, it would have to exist before it exists. More than that--and this is the CRUX of the matter-- a thing whose essence is distinct from its existence is, in a literal sense of the words, something which is in itself nothing; for without existence things would be absolutely speaking nothing. So if a thing's essence does not include existence as a part, then of itself it is nothing since it does not possess existence of itself. Now something which in itself is non-being could not have the power to give existence to anything else, so it could not be the ultimate cause of the existence of everything else. So in the uncaused cause there is no distinction between what it is and its existence; it is an act of existing. We must now try to see what this means to us.

Before we ask whether there is ever a distinction between essence and existence in the being of things, there is at least one other thing we can know relative to this distinction: there can be no more than one being in whom essence and existence are identical. To understand the reason for this, we must recall the second argument given for the distinction between matter and form in the essences of things we are familiar with. There it was pointed out that the things we experience are both similar and different from one another at the same time. Matter and form were needed to explain how there could be

many different things possessing similar characteristics; for the facts of multiplicity within a unity of species have to be accounted for, and one and the same principle cannot account for both similarities and for difference. Now, instead of talking about many dogs or many trees or many humans, multiplicity with reference to essence, we are talking about there being many existents, multiplicity with reference to existence. If there is more than one thing in existence, then these things are alike to a certain extent; for of each of them it is true to say that it exists. But in addition to being alike to a certain extent, they must also be different from one another; otherwise it would not be true that there were many of them. If there are no differences, there can be no multiplicity. What constitutes them alike is the fact that they each exist. What constitutes them different from one another, therefore, must be something other than existence. That which accounts for the difference, however, must be some-thing which exists; otherwise it would not be a reality at all and would be incapable of causing one thing to be different from another. But "something which exists" describes what we mean by essence. Essence is what exists; something which has existence but is not necessarily the same as its existence. So it is essence which causes the difference between things. In other words dogs are different from people because dogs are what they are and people are what they are. Each of these essences, though, is a way of existing, a possibility of being; otherwise there would never be dogs or people. So being a dog is one way of existing which causes dogs to exist in a

different way from people.

The argument can be put in another way. We are assuming there is more than one thing that exists, and we are asking whether both of these things could have for their essence an act of existence. Can the question "What is it?" be answered for each of these things "An act of existence."? Let's call one of them A and the other B. Is it possible that in both A and B there is no distinction between essence and existence? If so, then the phrase "An act of existence" expresses about both A and B what they are. But if so, then "Being an act of existence" also expresses a way in which A and B are similar. Then how do A and B differ? If they did not differ, they would not be two but one, contrary to our hypothesis. If "being an act of existence" expresses the similarity between A and B, the difference must be found in something else. By hypothesis the two are really different things; so there must be a source for the difference which itself is a reality and which is other than "an act of existence." Once again we arrive at a principle which is not an act of existence but which does exist; it is something which has existence, essence. So at least one of A and B can't be merely an "act of existence." There can be no more than one being in whom essence and existence are the same. The being of all other things will involve a composition of essence and existence. But we already know, that, if there is an uncaused cause, his essence is not distinct from his existence. So in all other things, namely, us, what exists and the actuality of existing are distinct principles. This conclusion has many significant implications.

First of all for God to make us is to give existence, an act, to a potency, essence, which is nothing prior to God's action in regard to it; for it does not exist prior to this action. This is a kind of causing different from the causality we are familiar with. All efficient causes we are familiar with work on some matter which already exists; they develop a potentiality belonging to something that is already there. The subject which receives God's action, essence, is not already there; for it does not exist without God's action. God makes out of nothing; in other words, He creates. Although creation is a type of causing unlike ordinary causality, we are able to understand it as analogous to ordinary causality. For the relation between essence and existence, as we have seen at length, is analogous to the familiar relation between a potential subject undergoing the action of a cause and that which the subject receives from a cause, namely, act. That is, the subjects on which ordinary causes act are potential in regard to what they will receive from the action of the cause. Likewise essence is a potential subject relative to what it receives from the action of God, namely, the act of existence. So we can form a concept of creation as analogous to ordinary causality.

To say that God creates is to say that He is all powerful. Since He makes out of nothing in the way that has been explained, there is nothing that escapes His causality; absolutely every thing and every feature of things is a result of His causality. In this way, God is drastically unlike other causes such as ourselves who are limited by the materials they are forced to work with. We are

never responsible for the totality of anything we make or do because anything we make or do will have features which stem from the material we had to work with which existed prior to and independently of our causality and which will continue to exist after our causality. But this is not true of the works of God; He is completely responsible for the very nature, the very limitations, of the materials He works with. (Do you still think we can blame ourselves for war to the extent of thinking God has nothing to do with it?) If God was not a cause of existence as such but was only a cause of change, as are all other causes, He would not be all-powerful. An unmoved mover, even one that causes change from eternity, is not responsible for all. For he is not responsible for the existence of the potency he is actualizing by means of change. If something in creation escapes the action of God, He does not make out of nothing.

Another way of saying what the fact that in all things other than an uncaused cause (if there is such a thing) essence and existence must be distinct means is that the uncaused cause is infinite. The reason for this is that the power of a cause is displayed by the distance between potentiality of the subject on which the cause is working and the act to which the cause brings that subject. Thus the greater a coach's ability, the more he can get out of material that is less than outstanding. But in the case of the process of giving existence to essence, the distance between the potency and the act is infinite, for essence is non-being, nothing, without existence. A limited cause can produce because it has something

to work with. Bringing something from absolute non-being to being requires a cause which is not limited. As we said above, God is responsible for the very limitations of the subject he works with; for He is responsible for one essence with one set of characteristics, rather than another, coming into existence.

A&P 47

The preceding pages on God have tried to do two things, both things deriving from the assumption that the principle of causality is necessarily true, that whatever undergoes change is caused to undergo change by something other than itself, or that whatever begins to exist is dependent on something else, or that potency is reduced to act only by something in act. Using that assumption the first thing we tried to do was draw the conclusion that an uncaused cause of change exist⁸⁰. The second thing we tried to do was to determine something of the nature of that uncaused cause of change. Investigating that nature we found first that it was pure act. Secondly we found that the answer to the question "What is it?" could leave no room for a distinction between what our concept of essence refers to in the case of God and what our concept of existence refers to in his case. His essence is an act of existence. Then we showed that only one case could an identity between essence and existence be true. Therefore in every other being outside of God there is a distinction between essence and existence with essence being a principle of potency and existence being a principle of act.

But if essence and existence in all creatures are related as potency to act, then the act of existing itself for creatures is something caused, something dependent. Therefore God is not only a cause of change a cause of the process of coming into existence, He is also the cause of existence itself. As we shall see later, it is crucial that we understand the difference between the concept of God as an

uncaused cause of change and the concept of God as an uncaused cause of existence. To be a cause of change is one thing, to be a cause of existence is another. A cause of change brings about a process by which an accidental or substantial form comes to an already existing matter. But existence is a different kind of actuality from form. Specifically, it is logically impossible for the act of existing to come to a potency that already exists. Nothing prevents a form from coming to a potency that was there before the form; but if something is not yet actually existing but is only a potential existent, it is simply not there, nothing. A cause of change does not make out of nothing. It makes out of something: it makes a new reality out of a previously existing thing that was potentially this new reality, in other words, it makes out of matter. But without existence, the potency for existence simply cannot be a reality in any sense. Therefore, to give essence existence is to make out of nothing or, to put it the other way around, to cause essence to exist is not to make it out of anything.

For there to be more than one being, for there to be a plurality of existents, is for God to share with other beings that type of act, namely, existence, which is His essence; for there to be more than one being is for God to allow others to participate in the type of actuality which is in Him not by participation but by identity. God does not participate in existence, He is existence. Other beings are not their acts of existence, this is not what they are, their

essence, Rather they have existence, possess it by participation not by identity. And for God to share with others the kind of act which is His by identity is to communicate existence to a potency for existence. For existence can be communicated and multiplied only if it is limited; there cannot be two things infinite in being. For existence to be communicated there must be some principle distinct from existence which accounts for its limitation and differentiation, that is, which accounts for one existence being differentiated from another. So existence can be shared by many only if in them it is received by a specific capacity for existence, a potency precisely for this kind of actuality. Thus to be a tree is one way to participate in the perfection that is in God, to be a dog is another distinct way to participate in the perfection that is in God, to be a star is another. Each created essence is a way of resembling the creator because it is a way of having that kind of act which is the essence of God.

So if existence is to be multiplied, is a principle which is potential relative to the act of existence, namely, essence is needed. But what if essence is to be multiplied, that is, what if there are to be many being with the same kind of essence? What if God wants to create not only a world in which there is more than one existent but also one in which there is more than one dog, more than one tree, more than one star. In order to create more than one being of the same kind of essence, God must do so by communicating the type of actuality characterizing the essence in question to a principle of potency. Again potency is needed as the principle which allows for the multiplication of act. But

here we are talking about a different kind of act so a different potential principle is called for. With regard to the act of existing essence is the principle of potency. But what about the case when essence itself is multiplied, what is the potency then? Prime matter, if it is substantial essence we are talking about; substance, if it is accidental essence we are talking about. Let us assume we are talking about essences belonging to the category of substance. How is God to create many substances of the same nature? By communicating the features characteristic of that nature to a receptive capacity for that kind of act; for receptive capacity potency, is what confines, limits, differentiates and individuates act.

Prime matter, in other words, is potency relative to the state of actuality we call being a substance, while essence is potency relative to the state of actuality we call existing. To put it another way, essence is the potency for the act of existing but prime matter is the potency for essence. For to say that prime matter is potentially this kind of thing or that kind of thing is to say that it is potentially something with this kind of an essence, say that of a dog, or something with that kind of an essence, say that of a tree. Prime matter is always actually one kind of thing, i.e., something with a certain essence, certain determinate characteristics; but it is always potentially other kinds of things, i.e., potentially something of a different essence, something with a different set

of specifying characteristics. So when we are talking about substance, prime matter is potency relative to the answer to the questions "What is it?" whereas the answer to that question, essence, is potency relative to the answer to the question "Is it?"

We have already seen that the essence of a substance that comes into existence through change is a union of potency and act or, to put it another way, the essence of such a substance is the actualization of a potency. Now we are saying that this union of potency and act considered as a whole stands as potency with reference to a further principle of act, namely, existence; that such an essence is from one point of view the actualization of a potency, the potency of matter, but from another point of view the essence itself is a potency with reference to a different kind of act, the act of existing.

To sum up. The problem of sameness and difference, the one and the many, arises both on the level of existence and essence. There can be many things that are alike in being existents and many things that are alike in having the same kind of essence. How can similarity and difference co-exist in the same thing at the same time; a composition of act and potency is needed to account for this. In the case of existence, essence is the potency. In the case of substantial essence, prime matter is the potency. In the case of accidental essence, substance is

the potency. How is it possible, then, for God to create many existents? Only on the condition that He do so by causing to exist receptive subjects for the act of existence that limit the act of existence, only by giving existence to essences distinct from their acts of existence. How is it possible for God to create many existents of the same kind of essence? Only on the condition that He do so by causing the characteristics defining that essence to exist in receptive subjects for that essence which individuate the essence. (So from the point of view of a believer in God, prime matter is not just a device invented to solve some logical problems in the philosophy of Change. It is a necessary aspect of God's creation if that creation is to contain a plurality of individuals sharing the same specific essential nature, e.g., a plurality of men or stars or atoms. If God wants to share a particular kind of manifestation of his perfection with a number of individuals, He must do it by actualizing prime matter in a way appropriate to that kind of essential perfection.)

If God is not just a cause of change but is a creator making out of nothing, then He is infinite and His causality extends to absolutely every detail of creation. Every detail in the world is the way it is because God made it that way. To say He makes out of nothing is to say that nothing escapes His causality. If the chair you are sitting in is 18 inches away from the nearest chair, this is because God caused that chair to be 18 inches away from the nearest chair. If we pick our chair up and move it closer to the other chair, God is causing you to pick the chair up and is causing the motion of our chair toward the other chair. If we are walking or singing God is causing us to walk or sing. God causes the exact number of students enrolled at Merrimack to be what it is and caused the exact number of *people* voting for Nixon to be what it was.

This is a conclusion that follows necessarily from the idea of a creator: absolutely everything is governed by His providence. But most people who claim to believe in a creator do not look at things this way. They do not realize the implications of their belief. When confronted with this implication they are prone to balk. There is a tendency to say: God creates things with certain powers and then leaves them to act on their Own. For instance, He gives man free will; and He gives the gasoline in the tanks of our cars the power to explode when ignited; He gives the acorn the ability to become an oak given the right conditions.

Its true that God gives things power, but it can't be true, if God is a creator, that He leaves them to act on their own. When natural things go from not using their powers to using them, there is a transition from potency to act. Thus the gasoline goes from potentially exploding to actually exploding, the acorn from potentially growing into an oak to actually growing into an Oak. What brings about these transitions from potency to act? The causal action of other physical things. The spark plug being ignited causes the gasoline to explode. The chemical action of the minerals in the soil and in the water it comes in contact with, causes the acorn to grow. Other causes brought these things into contact with the causes that will actualize them. The action of the fuel pump brings the gas to the combustion chamber; gravity and the wind account for the acorn coming into contact with the soil and moisture. The action of all of these causes, the pump, the spark plug, the minerals, the wind involves previous reductions from potency to act. And even if each of these effects, the gas exploding and the acorn growing, is the end of an infinite chain of transitions from potency to act, that whole chain with each cause and each event in it, is what it is because it was created that way by God.

To make it simpler, imagine that the world has a beginning in time. The principle we will illustrate applies just as much to an eternal world, but it is easier to grasp to begin with in the

context of a non-eternal world. When the world begins to exist, certain distinct things stand in certain spatial relations to one another. The nature of each of these things, its causal power, and its relation to the other things is determined by the causal action of God. Nothing else determines it since He made the world out of nothing. So assume the world consists of an internal combustion engine with a gas tank, a fuel pump, a spark plug and a combustion chamber. Assume further this world is created with none of the causes operating. How will any change get into this world? Only if in addition to making these causes exist, God brings it about that they actually act and exercise their causality. For instance the gas will start flowing through the engine only if God not only gives the pump certain powers but also activates those powers; the same with the powers of the spark plug. Now if the universe consists of just this internal combustion engine, everything that happens in the history of the universe will result solely from the action of the causal powers in the engine. And once given that these causal powers each have a certain nature in themselves and each stand in a definite relation to the others, specific effects will follow that would not have followed had these powers or these relations been different. But God is responsible for the nature of these powers, for these relations, and for the activation of these powers. Therefore God is responsible for everything

that will happen in the history of this universe.

The same is true if we picture this universe with the causes created in act, i.e., actually causing, rather than created potentially in act and then moved to act by God. If the pump is in action from the time it comes into existence, this can only be because God created it that way as opposed to some other way. It is the causal action of God that determines that it will be actually pumping from the moment it exists as a pump, just as it is the causal power of God that determines that it will be a pump. Again nothing else can determine this since there is nothing to limit God's action. It is God who determines whether it is gas or kerosene in the tank; and God who determines whether the spark ping is actually sparking or only potentially sparking. But everything in the history of the universe will result from the interaction of these causes. God determines the nature of this interaction; therefore He determines everything that will happen in the history of this universe.

Nor should we think of it as if God's own causality stops once the world is in existence. Things can never possess their own acts of existence as if they no longer needed to action of God to keep them in existence. They cannot exist on their own power precisely because they are nothing without the act of existing. Therefore they always need God's power giving existence to their essences; otherwise their essence would fall into nonentity. Only if essence possessed some reality apart from existence would it have the power to cling to existence on its own. This means that at anytime in the history of the universe when some cause is

Operating, it is only operating because God is at that time sustaining it in existence. And if that cause is producing a certain effect on some other being in its vicinity this is only because God is sustaining in existence at that place in the vicinity the other being which is acted on. Thus God holds in existence the spark plug, the spark, and the causing of the spark. If God is not causing some gas to exist in the combustion chamber, the effect of combustion will not be produced by the spark plug. That is, if God does not cause some gas to exist in a sufficiently close spatial relationship to the spark combustion will not occur.

If God can cause something to be a pump from the first moment of its existence, He can cause it to be actually pumping from the first moment of its existence. But whether it pumps from the first or second moment, it actually pumps only because God activates this causal power in the pump. But what if the pump's going into operation is the end result of an infinitely long series of other physical causes going into operation? In other words, what if the world is eternal? From the point of the operation of causes within this eternal world, the situation is exactly the same as the case of the non-eternal world in which the causes are operating from the first moment of their existence. In neither case was there ever a time when the causes were not actually operating. Yet in each case the causes were created since that is the kind of world we are assuming. The eternal world consists of certain causes and not others because from eternity God makes certain causes and not others exist again, there is nothing to determine or limit His action. The reason our

is that God caused it to be an internal combustion engine instead of a jet engine. And not only is it an internal combustion engine but also it is an eternally operating internal combustion engine. And the reason for this is that God caused it to be an eternally operating engine. This He could have done otherwise also. He could have caused the engine to exist from eternity but not have caused it to begin to operate until some point in time past which is a finite distance from the present moment.

So no matter what hypothesis we adopt, the hypothesis of an eternal world or a non-eternal world, if the world is a created world, God is responsible for absolutely everything and every event in the world. He may use created causes to bring something about but the existence of the created causes in question and the existence of their causal action derive directly from Him. We saw that this was true by examining three cases. First the case of a non-eternal world consisting of a number of causes with certain relation to one another which were caused to exist by the creator but only later moved into actual operation by the creator. God is responsible for everything in that kind of world. Second the case of a world, non-eternal world, consisting of a number of causes with certain definite relations to one another which were caused to exist and at the same time caused to be in a state of actual operation. God is responsible for everything in that kind of world. Third the case of an eternal world consisting of a number of causes with certain definite relations to one another which are caused to exist from all eternity and caused to be in actual operation from all eternity. We saw that this case is not essentially different from the second case. Therefore God

is just as much responsible for what happens in this third kind of world as in the others. Eternal or non-eternal, it makes no difference here. God the primary cause may use created secondary causes to bring about His effects. But He is responsible for the secondary cause being what it is down to the last detail; and especially He is responsible for the causal action of the secondary cause being what it is.

Furthermore, if the uncaused primary cause is a creator, He is not only responsible for the nature of the secondary cause and the secondary cause's action, He is also responsible for the nature of the material on which the secondary cause operates; He is responsible, again, for whether it is gasoline or kerosene that the spark plug will be igniting. So any way one looks at it, if this is a created world, a world made out of nothing, the creator is responsible in an absolute and complete sense for everything that is in the world. He causes every thought, idea, feeling, situation, combination of events, every chance meeting of people, every accident, every natural catastrophe, every sickness, disease, death, every joy, every pain, etc. If we claim to believe in a God who is a creator or if we are considering whether or not to believe in such a God, yet do not understand Him to be directly responsible for all of creation in this sense, then we don't know what we are talking about.

And If we think we can get by with an uncaused cause of change Who would not also be a creator, we should not think that there is any rational basis for such a belief. If there is a rational basis

for a belief in a primary cause of change that basis can only be the principle of causality, i.e., the essentially dependent character of changeable things. If that principle is true there is an uncaused cause of change but that cause must also be an uncaused cause of existence, a creator. So if one is considering believing in God because of a need for a cause, one should realize that the God he is considering is a creative God. On the other hand, if one does not accept the need for changes to be caused, one may perfectly well believe in a God Who is only a cause of change, but one cannot offer any reason for so believing.

What about human free will? If there is any point at all in talking about such a thing as a "will it is to talk about a causal power whose business is to produce decisions. If the action of all causal powers in a created world are made what they are by God, then the actions of our will are made what they are by God. If we make a decision it is because God caused us to make that decision. This is another conclusion at which theists often balk. But if you believe in or are considering whether to believe in a creator, you should not balk at this notion unless you have failed to comprehend the logical implications of the concept of creation. As a matter of fact, atheists often display a clearer comprehension of the idea of a creator than do theists, that is, atheists often see the logical implications of the idea of a creator better than do those who profess to believe in a creator.

Albert Camus, for instance says:

You know the alternative: either we are not free, and God the all-powerful is responsible for evil. Or we are free and responsible but God is not all-powerful. All the scholastic subtleties have neither added anything nor subtracted anything from the acuteness of this paradox. (The Myth of Sisyphus, p. 42)

This is what Nietzsche said about a creator who would judge His creatures on the basis of their conduct as if that conduct were free, as if He were not responsible for it Himself.

He was also indistinct. How he raged at us, this wrath-snorter, because we understood Him badly! But why did he not speak more clearly?

And if the fault lay in our ears, why did he give us ears that heard Him badly? If there was dirt in our ears, well! who put it in them?

Too much miscarried with Him, this potter who had not learned thoroughly! That he took revenge on His pots and creations, however, because they turned out badly – that was a sin against good taste.

There is also good taste in piety: this at last said:
"away with such a God! Better to have not God, better to set up destiny on one's own account, better to be a fool, better to be God oneself!" (Thus Spake Zarathustra, pp. 291-2)