Free Will and Determinism

A Dialogue

Clifford Williams

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CLIFFORD WILLIAMS

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FREE WILL and DETERMINISM

Preface

The aim of this book is to present the main features of the problem of free will and determinism via a dialogue that is clear, readable and interesting. I have attempted to make the dialogue suitable for persons who have had little or no background in philosophy.

The participants in the dialogue are Daniel, who is a determinist; Frederick, who is a free-willist; and Carolyn, who is a compatibilist. Each participant is of equal status—no one is presented as representing the correct viewpoint. The reader can remember more easily which position each participant holds by noting that the first letter of each of their names is the same as the first letter of the position that each holds.

The reader's attention is drawn to the abstract that begins on page 59. It summarizes the entire dialogue, section by section, and may be of some benefit to those wishing to review the structure of the ideas presented in the dialogue.

A list of questions for each section appears at the end of the dialogue.

I would like to thank the following persons for the suggestions they made on various parts of the book: William Carrington, Arthur F. Holmes, George G. Lavere, Robert McLaughlin, John R. Perry, and David White. I want especially to thank my wife Linda for making numerous helpful comments on the entire manuscript. I am also grateful to St. John Fisher College for granting me a sabbatical for Spring, 1977, during which a portion of the dialogue was written.

Clifford Williams

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A Dialogue

Participants:

FREDERICK: Free-willist
DANIEL: Determinist
CAROLYN: Compatibilist

INTRODUCTORY REMARKS

FREDERICK: Here comes Carolyn. Maybe she can tell us what she thinks about the case.

DANIEL: Hello, Carolyn.

CAROLYN: Hello, Daniel. Hi, Frederick.

FREDERICK: Daniel and I were talking about the Leopold and Loeb murder trial.

CAROLYN: Was that the trial at which Clarence Darrow tried to persuade the judge that the defendants should not be hanged for murdering a little boy?

FREDERICK: Yes. The trial made headlines all over the country. Nathan Leopold and Richard Loeb were only eighteen years old at the time, and their parents were well known throughout Chicago where they lived.

CAROLYN: Why did Leopold and Loeb kill the little boy?

FREDERICK: They wanted to commit the perfect crime.

CAROLYN: Is that all?

FREDERICK: Yes. They went to a school just as the children were leaving, picked up a youngster whom they happened to know, drove around for awhile, and then hit him on the head with a chisel, so that he bled to death right in the car. After that, they stuffed his body into a culvert in some out-of-the-way locality.

CAROLYN: How ghastly!

FREDERICK: I agree. Maybe that's why the newspapers played it up so big.

CAROLYN: What was Darrow's strategy at the trial?

FREDERICK: Darrow argued that the judge should have compassion on the two young murderers, because what they did was the product of causes over which they had no control. Let me read to you what he actually said. "I do not know what it was that made these boys do this mad act, but I do know there is a reason for it. I know they did not beget themselves. I know that any one of an infinite number of causes reaching back to the beginning might be working out in these boys' minds, whom you are asked to hang in malice and in hatred and injustice, because someone in the past has sinned against them."

CAROLYN: That certainly is a bold strategy for a defense attorney to use!

FREDERICK: Yes it is. Listen to what he goes on to say. "Nature is strong and she is pitiless. She works in her own mysterious way, and we are her victims. We have not much to do with it ourselves. Nature takes this job in hand, and we play our parts."

CAROLYN: Was the judge persuaded to reduce Leopold and Loeb's punishment?

FREDERICK: Yes, he must have been, because he sentenced them to life imprisonment, even though he was under great pressure from the public to sentence them to death.

CAROLYN: What do you think about Darrow's strategy?

FREDERICK: I think it is absurd, because it is based on the false belief that everything we do is determined. If that were true, then the two murderers could not have acted freely, which is obviously false.

DANIEL: I would say that Clarence Darrow is right in believing that everything we do is determined. If that means that the two murderers did not act freely, then that is what we should believe.

FREDERICK: What would you say about this case, Carolyn?

CAROLYN: I think Darrow is right in believing that everything we do is caused by previous happenings. But I also think that we are free and morally responsible for what we do.

FREDERICK: That sounds contradictory to me. If it was determined that Leopold and Loeb would kill the little boy, I don't see how they could have done it freely.

DANIEL: Why don't we discuss the whole issue of free will and determinism? Maybe we can resolve our disagreements.

FREDERICK: That's a good idea. Would you like to stay, Carolyn?

CAROLYN: Yes, I would be glad to. I don't think, however, that the issue should be put solely in terms of free will *or* determinism.

FREDERICK: How do you think it should be put?

CAROLYN: I would say that there are three main questions: One, do people have free will? Two, is determinism true? And three, are free will and determinism compatible?

FREDERICK: My answers to those questions are that people have free will, that free will and determinism are incompatible, and, therefore, that determinism is false.

DANIEL: My reasoning is just the opposite. Since determinism is true, people have no free will.

CAROLYN: I agree with you, Frederick, that people have freedom, and with you Daniel, that determinism is true, but I don't think that the two conflict.

DETERMINISM

FREDERICK: Perhaps we should define "determinism" before we start discussing our positions.

CAROLYN: That's a good idea. My definition of "determinism" is, "Everything that happens is caused to happen." In contemporary philosophical jargon, this is the same as saying that every event has a cause. That includes everything we ever do, think or say.

FREDERICK: Why do you define it that way and not as "People have no control over anything they do"?

CAROLYN: Because the question of whether or not we have control over anything we do is different from the question of whether or not everything we do is caused. And each of these two questions is different from the question of whether we can have control over anything we do *even if* everything we do is caused. That's why I said before that there are *three* main questions and not just two: One, Do we have control over anything we do? Two, Is everything we do caused? And three, Can we have control over what we do even if everything we do is caused? We can discuss these three questions separately, so we can give three different names to their answers—"free will" if we answer "Yes" to the first; "determinism" if we answer "Yes" to the second; and "compatibilism" if we answer "Yes" to the third.

DANIEL: Don't people usually think of determinism as saying

that people have no free will?

CAROLYN: Yes, people probably do think of determinism in that way. But I think that what determinism *says* should be clearly distinguished from what it may or may not *entail*. It says only that everything that happens is caused. Whether or not it entails that we have no free will is a different question altogether.

FREDERICK: You're saying that we should define "determinism" in a relatively neutral way, such as "Everything that happens has a cause," and talk first about whether this claim is true, and then about whether it entails that we have no free will, right?

CAROLYN: Right.

FREDERICK: That sounds like a good procedure.

DANIEL: I'll start by giving my reason for believing that everything that happens has a cause. I think this is true because of the enormous amount of happenings for which we have found causes. Both in daily life and in science we come across countless cases of caused happenings.

FREDERICK: Can you give some examples?

DANIEL: Yes. Wind causes trees to bend. Rain causes plants to grow. Friction causes heat.

FREDERICK: Can you give examples involving people?

DANIEL: Yes. Hunger causes people to eat. Peer pressure causes people to conform. Stress causes people to become tense. And so on. There are so many instances of what we do being caused that one cannot escape the conclusion that everything we do is caused.

CAROLYN: I agree.

DANIEL: And the extraordinary success of science in finding explanations makes it almost impossible to doubt determinism. Biology tells us that heredity determines what kind of persons we will be. Sociology tells us that environmental factors determine much of what we do. Psychology tells us that what we become as adults is influenced largely by what happens to us when we are young children. Psychiatry tells us that our conscious desires are products of unconscious motives. Neurology tells us that what we do is caused by electrical-chemical happenings in our brains. And all of them together tell us that everything we do, say, want or think is produced entirely by previous occurrences.

FREDERICK: How would you explain the murder committed by Leopold and Loeb?

DANIEL: According to the psychiatrist who examined them, they were emotionally ill. One of them was paranoic and had intense nervous energy; the other was manic-depressive and had as a personal philosophy the gratification of his own desires. Given these factors, we can see what triggered their outburst of murderous passion.

FREDERICK: How would you explain an everyday occurrence, such as my buying a mystery novel?

DANIEL: Based on what I know about you, I would say that your delight in reading suspense stories and your knowing that you will have some free time cause you to make the purchase.

CAROLYN: I like what you have been saying, Daniel. I think determinism is true for the same reason you do. Would you mind if I stated that reason in a different way?

DANIEL: No, go ahead.

CAROLYN: I want to link up your statement about finding causes with a description of what exactly it is for a happening to have a cause.

DANIEL: Okay.

CAROLYN: If something that happens is caused to happen, then it could have been different in the way it happened only if something just prior to it were different. But if something that happens has *no* cause, then it could have been different in the way it happened *even if* everything just prior to it were exactly the same. That means that determinism would not be correct *if*, whenever we found differences in the way things usually happen, we *also* found that the prior conditions were exactly the same. But we never do find this. What we find is that whenever there are differences in the way things usually happen, there are also differences in the prior conditions. The only fair conclusion, I think, is that determinism is true.

FREDERICK: Could you illustrate that with an example?

CAROLYN: Yes. Suppose a strong gust of wind hits the tree in my front yard but does not knock it down. And suppose that later another strong gust of wind hits the tree and does knock it down. We would naturally think that the conditions prior to the tree's falling down were different from what they were when the wind hit the tree the first time.

Perhaps the wind was stronger the second time, or perhaps it hit the tree from a different direction. The reason we would think this is that we naturally think that the wind caused the tree to fall over the second time. We would say that the tree's falling over has no cause only if we found that the initial conditions each time were exactly the same. But in a case like this, we invariably find some difference in the initial conditions.

FREDERICK: Do you think the same can be said about what people do?

CAROLYN: Yes. Suppose one person reacts with great anger to personal insults, whereas another person reacts with calmness and equanimity. When we look into their characters, we find differences that account for the different ways they react. We don't find that their genetic inheritance and social and family environment are exactly the same. But only if we did find this could we say that determinism is false.

FREDERICK: What would you say about identical twins who are brought up in the same family, yet who grow up to have different personalities? That seems to me to be a case in which the initial conditions are the same but the outcomes are different.

CAROLYN: If you could show me a case where identical twins grew up in exactly the same environment yet turned out to be different, then I would admit that determinism is false. But showing that two children grew up in exactly the same environment seems impossible. There are vast differences in the way children are treated and in what they experience. These differences can lead to still further differences, and so produce different personalities.

DANIEL: I would be interested in hearing your reactions to our argument for determinism, Frederick.

FREDERICK: Well, as I have already said, I don't think determinism is true. So, naturally, I disagree with your argument for it.

DANIEL: What do you think is wrong with our argument?

FREDERICK: Two things. In the first place, I don't think it shows that *everything* we do is determined. And in the second place, it seems to me to ignore the fact that there is concrete evidence against determinism.

DANIEL: Could you explain each of those points?

FREDERICK: Yes. I'll start with the first one. Even though you two are right in saying that science and everyday experience show that much of what we do is determined, I don't think there is enough evidence to show that everything is. There are, after all, many happenings for which we don't know the causes. And there are many areas of human behavior that scientists haven't investigated yet. So I don't see how you can claim that *all* of what we do is caused.

DANIEL: Carolyn and I aren't saying that people actually have discovered the causes of every happening. What we are saying is that it is legitimate to *infer* that everything we do is determined from the fact that much of what we do is determined. In daily life, we frequently make this kind of inference. For instance, we infer that all of the grass in the world is green after seeing only some of the world's grass. We infer that all heavy objects fall on the basis of seeing only a small number of heavy objects fall. If you think these inferences are valid, then you should believe that determinism is true on the basis of the evidence that science and everyday experience provide.

FREDERICK: No, I don't think I should, because the percentage of the world's events we have observed is much smaller than the percentage of grass and falling objects we have observed. In the case of the grass and falling objects, we may have seen as much as five or ten percent, but when it comes to the total number of events in the world, we can scarcely have observed more than one-millionth of one-millionth of one percent. In view of this fact, isn't it rather presumptuous to say that every single event is caused?

DANIEL: No, it's not presumptuous, because over the past several centuries, scientists have discovered the causes of enormous numbers of occurrences. Surely, that is a good reason for believing in determinism.

FREDERICK: Compared to what scientists knew centuries ago, we do, indeed, have a great deal of knowledge. But compared to what could be known, we have very little. And even the knowledge scientists do have about people is general and imprecise. It leaves plenty of room for free and uncaused actions. For example, you said earlier that peer pressure causes people to conform. But that's not always so. There are plenty of exceptions. And there are

exceptions to almost every other causal explanation of people's behavior.

DANIEL: That may be true, but science has progressed to the point where many of the exceptions can themselves be explained. If a person doesn't conform when confronted with peer pressure, his behavior can be explained by means of a different causal law. Scientists have discovered so many causal laws that we are justified, I believe, in thinking that all of our behavior is governed by causal laws.

FREDERICK: Well, that seems to me to be nothing more than a mere hope, not based on good, solid evidence. Besides, you still have my second point to contend with, namely, that there is actual evidence against determinism.

DANIEL: What is that evidence?

FREDERICK: It's evidence that scientists have discovered in a branch of physics called quantum physics, or microphysics. In the early part of the twentieth century, physicists began studying the behavior of electrons, photons and other subatomic particles. What they found was that the movements of individual electrons and photons were random. There was nothing that explained why an electron or photon moved as it did. For example, it was discovered that electrons sometimes jump from one orbit to another without any apparent cause. And in the "shooting photon" experiment, it was found that when photons were shot at a barrier with two holes in it, it was impossible to explain why individual photons went through one hole rather than another.

DANIEL: Haven't scientists discovered any laws governing the behavior of subatomic particles?

FREDERICK: Yes, they have, but many of the laws they have discovered are only statistical ones, which don't explain the behavior of individual electrons and photons. They explain only what groups of electrons and photons do *as groups*. For instance, in the shooting photon experiment, physicists can tell how many of the photons will go through each hole, but they can't tell which ones will go through which hole. And in the jumping electron phenomenon, physicists know that a certain percentage of electrons will suddenly jump to a new orbit, but they can't tell which ones will do it or when they will do it.

DANIEL: What do you think is the significance of these new discoveries?

FREDERICK: I think that quantum physics has revolutionized our view of reality. Previously, scientists assumed that every occurrence was causally explainable, but now quantum physics has shown that this assumption is not true. Some kinds of occurrences are random and uncaused.

CAROLYN: How would you respond to this, Daniel?

DANIEL: My first reaction would be to wonder whether quantum physics really has shown that some kinds of occurrences are uncaused. There is so much evidence for determinism that I think we should be very skeptical when anyone claims to have found something that is uncaused.

FREDERICK: That's what the quantum physicists said at first, too. But their new discoveries were so startling that many of them changed their minds.

DANIEL: The only thing quantum physics has shown, so far as I can tell, is that we don't know the causes of certain kinds of occurrences. But this is far different from knowing that the occurrences don't have causes.

FREDERICK: No, quantum physics has shown that there is an actual lack of causality in the subatomic realm, not just that we don't know the causes. Consider the case of the shooting photons. When physicists shoot a stream of photons at a barrier, they find that the photons don't hit the barrier all at the same place. Some of the photons hit the barrier at places other than the spot at which the photons are shot, in the same way that some of the light from a flashlight hits a wall at places other than the exact place at which the flashlight is aimed. This phenomenon is called the photon dispersion effect. There is nothing about the way the photons are shot that explains their different directions of travel. Each photon is shot in exactly the same way. So the situation conforms to Carolyn's description of an uncaused happening—same initial conditions but different outcomes.

DANIEL: I don't see how anyone could know that the initial conditions are exactly the same. The most that anyone can say is that no one has found what accounts for the different outcomes. In the future, someone may well discover what causes the photons to disperse.

FREDERICK: According to quantum physicists, we will never find the cause. In fact, they say, we literally cannot find the cause, because the only instruments physicists can use to detect the movements of subatomic particles are so much larger than the particles themselves that the movement of the particles is changed whenever the physicists attempt to observe the particles. This situation is just like trying to find how fast a marble is moving by throwing a basketball at it. Obviously, the marble is going to change its speed when the basketball hits it.

DANIEL: If what you say is correct, then it is, indeed, impossible for us ever to find the cause of the photon dispersion effect. But that's not the same as saying that there is no cause. There still may be a cause even though no one can ever find it.

CAROLYN: I agree. There is no method of observing that an occurrence has *no* cause. Here is an example. Suppose the light in this room were to come on suddenly and then five seconds later go off. We don't see the cause of this mysterious phenomenon, but neither do we see that it has no cause. Something of which we have no conception might have caused it. So we can't say that it has no cause, but only that we don't know what it is.

DANIEL: Right. And the same is true at the subatomic level. There may be something of which we presently have no conception that is causing the photon dispersion effect.

CAROLYN: This means that there is no way to disprove determinism. If determinism were false, no one could ever know it.

DANIEL: I have another reaction to what you have been saying, Frederick.

FREDERICK: What is it?

DANIEL: I'm wondering what the new discoveries in quantum physics have to do with free will. In order for them to be relevant, wouldn't it have to be shown that our actions are the result of the uncaused behavior of electrons and photons in our brains?

FREDERICK: Yes, that's right.

DANIEL: Well, then, I don't see how the new discoveries are relevant, because scientists haven't shown that the uncaused activities of subatomic particles produce our free

actions. But until they do show this, it is entirely possible that everything we do is determined, even if occurrences at the subatomic level are uncaused.

FREDERICK: It seems to me that if occurrences at the subatomic level are uncaused, then it is much more likely that some ordinary-level occurrences are uncaused.

DANIEL: No, that doesn't follow, because there is a huge amount of evidence for ordinary-level occurrences being caused. This means we can safely believe that all of our actions are caused, regardless of what quantum physics says about subatomic phenomena.

Whether Determinism Is an Empirical Theory

CAROLYN: What is your reaction to Daniel's and my statement that we cannot observe that an occurrence has no cause, Frederick?

FREDERICK: If that statement is true, then you and Daniel cannot use observations to show that every occurrence has a cause, contrary to what you have been trying to do.

DANIEL: Why do you say that Carolyn and I can't do what we have been doing?

FREDERICK: Because if you say that we cannot observe that an occurrence has no cause, then you have to say that determinism is not an empirical theory. And if you say that determinism is not an empirical theory, then you can't say that science and everyday observations show it is true.

DANIEL: Could you explain that in more detail?

FREDERICK: Yes. In order for a statement to be empirical, it has to be refutable in principle. This means that we have to be able to think of some observable circumstance which, if it were to exist, would disprove the statement. If a statement is not refutable in principle—if, in other words, there isn't even any *possible* observation that would disprove it—it cannot be empirical. Would you say that's a fair description of an empirical statement?

DANIEL: Yes. That's the way it is normally described.

FREDERICK: Well, then, I don't see how you can say both that "Everything that happens has a cause" is an empirical statement *and* that there aren't any possible observations that would show that a happening doesn't have a cause. If there aren't any possible observations that would show that a happening doesn't have a cause, then determinism would