CIRCLE OF THE WISE

Interviews with
California Philosophers
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CIRCLE OF THE WISE

Interviews with California Philosophers

Conducted by MSAC Philosophy Students

Mt. San Antonio College
Walnut, California
Dedication

To philosophy students at Mt. San Antonio College
Preface

A Note on Methodology

In the Fall of 1991 students enrolled in Introduction to Philosophy classes at Mount San Antonio College conducted interviews with some of the most prominent philosophers in California. Ten questions were asked of each philosopher, including queries about the existence of God, life after death, and the interface between human and artificial intelligence.

The interviews ranged from personal one on one conversations, to telephone interviews, to mailed written responses. There were originally over fifty interviews that were transcribed. From these the editors selected between twenty and thirty of the most representative and insightful responses. Moreover, it was not required that each question be answered; thus, some philosophers chose to respond to only a few of the posed questions.

The overall result is a fascinating study of the rarefied world of professional philosophy that provides a glimpse into how philosophers deal with questions that have held a perennial interest to humankind, regardless of time and place. What is perhaps most revealing in this study is how often philosophers from different research backgrounds agree, especially when dealing with questions concerning the existence of a Supreme Being or the possibility of life after death. Although the philosophers represented in this book reflect a wide variety of interests (a significant number, for instance, were chairpersons of their respective departments), it should be noted that this selection is a small one and not necessarily indicative of the majority of professional philosophers in California.
List of Professors

Adams, Robert: U.C. Los Angeles
Aebischer, Scott: C.S. Los Angeles
Arntzenius, Frank: U.S.C.
Beckman, T.: Harvey Mudd College
Beckner, Morton: Pomona College
Blake, David: Loyola Marymount University
Churchland, Patricia: U.C. San Diego
Churchland, Paul: U.C. San Diego
Cohon, Rachel: Stanford University
Copp, David: U.C. David
Davis, Steven: Claremont Graduate School
Dreyfus, Hubert: U.C. Berkeley
Dumont, Michele: Mount Saint Mary's College
Fischer, John: U.C. Riverside
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Lloyd, Elisabeth: U.C. Berkeley
Matson, Wallace: U.C. Berkeley
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McGray, James: University of San Diego
Needleman, Jacob: C.S.U.F.
Neumann, Harry: Claremont Scripps College
Pippin, Robert: U.C. San Diego
Ring, Merrill: C.S.U. Fullerton
Rosenberg, Alexander U.C. Riverside
Ross, Ralph: Claremont Scripps College
Roth, John: Claremont McKenna College
Scott-Kakures, Dion: Claremont Scripps College
Schwyzer, Hubert: U.C. Santa Barbara
Shalinsky, Allison: U.C. San Diego
Sircello, Guy: U.C. Irvine
Smart, Ninian: U.C. Santa Barbara
Suppes, Patrick: Stanford University
Wollheim, Richard: U.C. Davis
Woodruff, Peter: U.C. Irvine
I. Which Philosophical Tradition Do You Agree With Most?

Churchland, Paul (U.C. San Diego): I guess the correct answer is the philosophical tradition that takes the natural sciences very seriously and that would be the tradition; some prominent examples are Aristotle, Descartes, Locke, and Bertrand Russell, and Willard Quine. I am a scientifically inclined philosopher; I think that would answer your question. I think many philosophical questions would ultimately get there answers from the developments that science gives us.

Cohon (Stanford University): I am at home with the methods and forms of argument of Anglo-American analytic philosophy. In epistemology, I am most attracted to Kant. In philosophy of mind and action I find the line of thought that goes through Wittgenstein and Anscombe most congenial. In ethics, my views agree with different traditions at different points: sometimes with the tradition of virtue ethics, sometimes with Kantian ethics. In political philosophy I suppose I find myself agreeing with Hume a good deal on certain topics.

Copp (U.C. Davis): I would agree with the so-called analytic tradition which claims are to be supported by argument. There is a premium on clarity and expression.

Dryefus (U.C. Berkeley): I agree most with what is called the Continental tradition because they deal with issues that seem relevant to human life and to the current state of the culture. The analytic tradition does too but in a very indirect way and sometimes so slightly that you cannot get relevance out it.

Friedman (U.C. Davis): Analytical philosophical tradition. Logic-linguistic analyses gives the best hope in dealing with certain classical problems.
Griesemer (U.C. Davis): As a philosopher of biology, I identify with a certain narrow tradition within my field. I am probably what you might call an anti-reductionist, non-realist. This is because reductionism developed in philosophy of science around a narrow set of formal axioms and sciences like biology as reducible to physics. I don't think formal reduction is possible. I am non-realist in the weak sense that I don't think the realists (people who believe that science gives us, or aims to give us, "the truth" about nature) have established their case. I tend toward empiricism or some variety of social relativism in that I think that the things philosophers of science tend to talk about, scientific theories and explanations, are products of social construction based on observable data. I don't believe in theoretical entities (like genes, species, atoms), but not because I don't think they exist. Rather, I don't think science requires that we believe in them in order to do science.

Jolley (U.C. San Diego): As a historian of philosophy, I am not committed to any particular overall philosophical position. My tastes in philosophy are fairly catholic. I admire British Empiricism for its intolerance of pretentious, cloudy abstraction. I also admire the metaphysical system of the Rationalists (such as Spinoza and Leibniz) which try to give a complete account of reality and the place of human beings within the world.

Jubien (U.C. Davis): I am firmly embedded in the Anglo-American "analytic" tradition within philosophy. To say that I "agree" with it is merely to say that I do philosophy that way. Philosophers in this tradition of course have serious disagreements among themselves on specific questions. The reason I do philosophy "analytically" is that I have so far been unable to understand the efforts of those who say they are doing philosophy some other way. In most instances I find what they write and say incomprehensible. In other cases I find it comprehensible but I don't think of it as philosophy. (It seems more like sociology or politics or cultural history or aesthetics or literary criticism or some other discipline.)
Kaplan (U.C. Los Angeles): Anglo-American or analytic philosophy. It's hard to say why you agree with one orientation more than another. I was raised in that orientation. Maybe even something one might call logical empiricism. Rudolph Carnap was my teacher. I am a logician. I am interested in the ways which technical workfare on fundamental philosophical issues. I find analytic approach most illuminating.

Lambert (U.C. Irvine): It's called analytic philosophy. I don't know the reason why. I suppose it's because I came into philosophy out of science. There is a natural disposition of a person coming onto philosophy out of science to be more interested in the ways in which people do philosophy in a kind of rigorous detailed mathematical way. I wasn't just interested in its history itself. I was more interested in analyzing problems than being able to solve them. You certainly didn't do that sort of thing in the other sort of traditions. When I talk about analytic philosophy, I'm talking about formal analytic philosophy. Those in the United States virtually owned the U.S. for a long time after WWII because of the founders of analytic philosophy on the formal side came from Austria and Germany and have escaped after WWII, otherwise they would've been killed. And they were the founders of that tradition. But my connection with it was just very natural, working this way with philosophical problems.

Lloyd (U.C. Berkeley): I see myself agreeing with several different conflicting traditions. I find the German Romantics very influential in my work. Most obviously I am influenced by the recent analytic tradition--the logical positivist tradition from Vienna. . .So I am a mixture of Continental and Analytic traditions. I am interested in problems about logic, and that makes me value the work of the logical positivist. But I am also interested in issues about the human spirit and human knowledge, and different ways of knowing. Which are much more the tradition of the Continental philosophers all the way back to the German idealists, the German romantics, and turn of the century people such as Goethe. He addresses issues of the relation between a human being and our science and so I find that this has a lot to do with the German romantic tradition.
**Matson (U.C. Berkeley):** The Aristotelian. It recognizes that our only reliable knowledge is what scientific investigation supports, and it has a proper conception of the roles both of experience and of intellectual insight in scientific method. Its ethic is based on the conception of the human good as the realization of distinctively human potential. It locates all values within this world (the only world there is). It appreciates the importance of tradition without being enslaved to it.

**McGray (University of San Diego):** The analytic tradition for the simple reason that the questions are carefully analyzed. However, I understand the analytic tradition in a wide, historical sense, more or less the way Bernard Williams interprets it.

**Needleman (San Francisco State College):** Plato.

**Rosenberg (U.C. Riverside):** I agree with the philosophical traditions of "Quine" because it attaches the greatest weight to physics.

**Schwyzer (U.C. Santa Barbara):** I guess I would call myself a Kantian. I am not a rationalist nor am I an empiricist. I believe that all knowledge comes from the senses.

**Shalinsky (U.C. San Diego):** I suppose I agree most with the contemporary analytic tradition, though I think distinctions between traditions are somewhat artificial. All traditions are--or ought to be--characterized by a commitment to the central tools of philosophy. What philosophers try to do is construct and critically analyze arguments: When engaged in critical enterprise, they try to assess evidence offered in support of a claim; when engaged in the constructive enterprise, they try to offer persuasive support for a claim. To the extent that a tradition employs such tools, it is what I regard as distinctly philosophical in nature.

**Sircello (U.C. Irvine):** Plato, because of his views on love and beauty are quite similar to my own.
Smart (U.C. Santa Barbara): I don't have a simple answer for that; there are more than just one. I'm fond of Buddhism although I was raised Christian. I'm influenced by both of these religions and by Karl Popper's philosophy of science. I'm influenced by his ideas of liberalism. A "liberal Christian" might be fine. Also I'm a "semi-Buddhist." And I'm critical. We shouldn't just accept a belief because it's tradition. I think we should have freedom and that's one thing that religions haven't stressed.

Suppes (Stanford University): I think Aristotle, British empiricists, and Kant are the ones I agree with most. They have different themes, but that is the great tradition in philosophy. They are classical academic philosophers. I think they have importance for today.

Wollheim (U.C. Davis): The analytic tradition, because it sets great store by clarity. Clarity is not the end of philosophy but it is a precondition of good philosophy.

Peter Woodruff (U.C. Irvine): One of the problems is that existentialism is not an alternative to empiricism and rationalism. They are different kinds of divisions of things. Well, I would say... if you wanted to know what movement I consider myself part of. . .I would say, broadly speaking, that known as logical empiricism, like Hume. But I wouldn't want to be pinned down to that. What I think is that philosophy is a technical discipline and that it should make use of certain technical methods, largely mathematical and logical. That was one of the views that held, such as the verifiability theory of meaning and so forth, those are up for grabs, but the broad sort of methodological point [is what I accept.] In saying that I can agree with philosophers like Aristotle and Leibniz. I mean Leibniz would be regarded as a rationalist, so would Descartes, and yet they both, I would say, did what I would call technical philosophy at their time, especially Leibniz. So that doesn't really make me an empiricist. if an empiricist is somebody who's in epistemology--the theory of knowledge--denies that all truth is a priori truth, then I guess I can say that I am an empiricist, since I don't think that all truth is a priori truth.
II. Which Philosophical Tradition Do You Disagree With Most?

Adams (U.C. Los Angeles): I certainly disagree with a lot of things. I have no sympathy whatever for materialism. I am quite opposed to most forms (probably all forms) of utilitarianism. Those are the first two that come to mind.

Beckman (Harvey Mudd): My strongest reactions are against those analytic philosophers who push philosophy into such a technical enterprise that most of one's time is devoted to mastering technical vocabulary and puzzles. Among philosophers of science, this is outrageously common, especially among those who dwell on statistical inference. Nancy Cartwright's recent book is an example.

Beckner (Pomona): Well, phenomenology and Platonism. I think they rely too much on analysis of problems rather than tying them up with reasons why or evidence for.

Churchland, Paul (U.C. San Diego): That's an interesting question. There are many philosophical traditions that I disagree with. I think that I would disagree most with the philosophical tradition that degenerates the role of reason, that invites us to become mystics. That invites us to give up or forsake our rationality in order to find satisfaction in some other way, either through meditation or through drugs or something like that. I think the road to understanding is the path reason will take us along. So I regard reason and intellectual honesty as being very precious indeed. Most philosophical traditions do.

Cohon (Stanford): In ethics I find myself disagreeing with utilitarianism most. In philosophy of mind [I disagree with] eliminative materialism. These are specific views rather than traditions. I can't say I find myself disagreeing with any traditions;
rather, some traditions, such as that of Christianity from Augustine onward, have little to say to me--they don't address issues that engage me. The contemporary continental tradition is one with which I have trouble engaging (including Derrida and company).

Copp (U.C. Davis): I would say the so-called continental tradition, although "disagree" is not the right word. I find the topic generally to be unintelligible.

Dreyfus (U.C. Berkeley): The analytic tradition. I don't so much disagree with them; [rather] I find them not as relevant to my interest, though I respect their rigor and wish that the continental tradition had such rigor when it dealt with the important questions. Dumont (Mt. Saint Mary's College): I do not have any particular enemies, although philosophers who try to be deliberately obscure and do not address real concerns from the perspectives of ordinary experiences are the ones that I find most odious because they seem to be pretentious and use philosophy to promote their egos.

Fischer (U.C. Riverside): I most disagree with what I would call a literary approach to the answers of the "big questions" because nothing is very clear. I like clarity and precision.

Friedman (U.C. Davis): Critical theory tradition. Muddle-headed to the extreme; moreover, their relativism is either self-refuting or unauthentic.

Jubien (U.C. Davis): Within the analytic tradition, I find myself in strong disagreement with anti-realism, with relativism (and pragmatism) about truth, and with the widespread assumption that materialist accounts of the mind are somehow "scientific" while, say, dualism is not. It would take many pages to say why I have these disagreements.

Kalish (U.C. Los Angeles): Well, I disagree with those philosophical traditions which try to build metaphysical or theological systems which are not based upon either some kind of mathematical foundation or foundations of empirical science.
**Lambert (U.C. Irvine):** Well, there is a very modern tradition sometimes referred to as post-modernism or deconstructionism. And I find myself completely in opposition with that stuff.

**Lloyd (U.C. Berkeley):** Strangely enough I would have to say modern analytic philosophy. This is strange because a person from the outside looking at my work would say that I am an analytic philosopher. I disagree with the focus on language. Here I am talking about English and American philosophy from 1930 to the present day.

**Matson (U.C. Berkeley):** The Platonic. Its conception of knowledge is ultimately mystical. It is suspicious of and supercilious toward natural science.

**McCann (University of Southern California):** The tradition I would disagree with most is idealism, especially absolute idealism. This is a perfect example of what happens when you let speculation just go completely unchecked. You can make all of these nice claims but none of them has any cash value.

**McGray (University of San Diego):** Some of the contemporary European philosophy. Instead of careful analysis, it seems to be concerned with lots of different ways of perceiving things.

**Needleman (San Francisco State):** Logical positivism.

**Ring (C.S.U. Fullerton):** My greatest disagreements are with the philosophical traditions which see science as the only legitimate way to understanding and which try to emulate science in their philosophical practice. Science is one kind of legitimate activity, but is no more than that.

**Rosenberg (U.C. Riverside):** I disagree with post-modernism because it has no room for truth, falsity, justification, or rationality.

**Ross (Claremont Scripps College):** The idealist philosophy because Plato's fundamentals and quotes created a lot of damage.
Shalinsky (U.C. San Diego): Contemporary analytic philosophy is often contrasted with continental European philosophy (e.g., existentialism, phenomenology); while the former seems primarily concerned with minute analysis, the latter is seen as engaged in some vast, overarching enterprise. From the point of view of an analytic philosopher, continental philosophy often seems to substitute gibberish for clarity and conciseness. I suppose this would constitute grounds for major misgivings about continental philosophy--it certainly has for me. I have to admit, however, that the first course I took in philosophy was in existentialism, and they did seem to have something to say about the "meaning of life." I certainly have no quarrel with the substance of existentialist and phenomenological claims (in fact, they agree in some respects with certain positions in cognitive science); the problem lies simply in the unclarity and silliness with which the claims are sometimes expressed.

Wollheim (U.C. Davis): Any tradition that thinks that it can add to the sum of empirical knowledge simply through reason unaided by observation or experiment.

Woodruff (U.C. Irvine): I guess I would disagree with those who say that philosophers should not be technical. [Those who say] that philosophy is not interested in the search for truth, but it is interested either in edifying or making people have nice thoughts or drawing pretty pictures of the way the world is, or something like that. That I would disagree with. I would also disagree with a certain continental tradition that says philosophy is to be done in an obscure way--that the less intelligible a text is, the deeper it is. I see philosophy as continuous with science--that's the typical logical empiricist view. I would disagree with those who think that philosophy is not continuous with science.
III.
Which Philosophers Do You Most Admire?

Adams (U.C. Los Angeles): I admire most of the famous philosophers: Plato, Aristotle, Socrates. I admire most of the medieval philosophers like Aquinas. I have great admiration for Descartes. I have immense admiration for Kant. I admire Berkeley for his daring, clarity, style, and his creativity.

Churchland, Paul (U.C. San Diego): I admire my wife [Patricia]. I think she's a very good philosopher, but that may not be the answer that you were looking for. Historically, I admire Aristotle because he was a philosopher who knew as much science as it was possible to know. I admire Descartes because he was a philosopher who knew as much physics and mathematics and physiology as it was possible at that time for a philosopher to know. I admire Bertrand Russell for the same reasons. There are many philosophers like this. I guess I don't admire all of them because some of them have come up with theories which I don't think are successful. Philosophers should know as much science as possible and that's science in a very broad sense. That includes psychology, sociology, and includes the human sciences and also the legal sciences—jurisprudence and political theory.

Cohon (Stanford): [Among living philosophers] there are many I admire without necessarily agreeing with them: Donald Davidson, G.E. Moore, Anscombe, Bernard Williams, Thomas Nagel, John Rawls. I admire them for the originality and depth of their thought; some for the clarity with which they express it as well (although this is not the case for Anscombe and Williams).

Copp (U.C. Davis): John Rawls. He attempts to deal with central philosophical problems. He provides a strikingly original approach.
**Dreyfus (U.C. Berkeley):** I admire Heidegger and Merleau Ponty most. I admire, like anyone would, Aristotle because he is the great philosopher who managed to say many important things while staying close to common sense. I admire Kant because he is the greatest philosopher that ever lived, the most systematic and most original and certainly one of the most influential. But my [primary figure is] Heidegger because I think he is not only close to common sense, but deeper than Aristotle, righter than Kant. He has got the advantages of both of them but he has also got a deeper understanding of the human condition than either.

**Friedman (U.C. Davis):** Socrates, Descartes, Spinoza, Hume, Russell, Quine, Kripke, and Van Krassen because all these were radical philosophical innovators and all are breathtaking.

**Griesemer (U.C. Davis):** I admire William Wimsatt (my dissertation advisor at the University of Chicago) because he is creative. He sees new and interesting philosophical problems about science that other people don't see. He probably doesn't produce the best answers or the most readable essays, but neither do I. I tend to value creativity and insight more than "correctness" or even "clarity." I admire Nelson Goodman and his work in art, representation, and individuals. His work is clear as well as creative. He's the sort of philosopher I find myself reading to get me jazzed up about a problem again after I've not thought about it for a long time. I admire Nancy Cartwright, a philosopher of physics. She's written a lot on abstraction, causation and laws on physical science. She is also very innovative as philosophers go. I especially like her collection of essays, "How the Laws of Physics Lie."

**Jolley (U.C. San Diego):** Spinoza, Hobbes, Berkeley, Hume; they were intellectually fearless, and (with the possible exception of Spinoza) clear, incisive writers.

**Jubien (U.C. Davis):** I admire most of the eight or ten frequently mentioned great philosophers of history. Among contemporaries, I especially admire Saul Kripke, David Lewis, W.V. Quine, and Roderick Chisholm. I admire all these philosophers because they
have done very important work in what I think of as the most central problems of philosophy. Of course I often disagree with their views. (I admire lots of other philosophers as well.)


Lloyd (U.C. Berkeley): Hegel and Aristotle. I admire Hegel because he had such a strong sense of history. And I admire Aristotle because he had such a strong sense of the natural world.

Matson (U.C. Berkeley): Aristotle. Epicurus, for his fundamentally right world-view and his hostility to superstition. Hobbes, for his incomparable style and his feistiness. Spinoza, who outlined the essentials of a scientific view of the universe and of man and the human good. Hume, for his Christianity bashing. Nietzsche, ditto, and for reviving the Aristotelian ethic for self-realization.

McCann (University of Southern California): I can name a few. Locke is the person I am most interested in because Locke is one who I think did more than anyone else to lay foundations for a mechanistic theory of science. I also very much like Hume's work, another empiricist. I am also interest in Kant who has a problematic relation to both rationalism and empiricism. As for modern philosophers, the one I am most interested in is Wittgenstein. He has a complex relation to philosophical theorizing. I do not read him negatively as a lot of people do. I do not think his aim is to just say you can not have any appropriate philosophical theorizing about things at all. I think he performed an important service in reigning in some of the more ambitious speculations about the nature of mind and about the workings of language, showing that one had to be extremely careful and pay a lot of attention to detailed examples in arriving at general claims about mind and language. It is that tendency that I admire in Wittgenstein. I am pretty much a hard empiricist. What you see is it. This is another thing which Wittgenstein has done a lot to bring out. What you see is very much controlled by conceptual presuppositions and things which you
have that sometimes work to the good to help structure your experience. Other times it can work to the bad, to distort what evidence is.


Needleman (San Francisco State): Plato, Maimonides, Kierkegaard, Nietzsche, and Kant.

Shalinsky (U.C. San Diego): "Admiration" is probably too strong a word to describe my attitude toward philosophers. I think, personally, that it's important to be somewhat of an iconoclast: one shouldn't cower in the face of even the most imposing philosophers. In the first place, outright devotion tends to undermine (what I think is) the essentially critical spirit of philosophy. In the second place, students frequently find themselves paralyzed when confronted with the difficult text by a philosopher they idolize. I suspend my iconoclasm only in the case of Kant. His arguments are unbelievably complex (as well as, if you ask me, right) that one cannot help but feel admiration.

Smart (U.C. Santa Barbara): As I said before, Popper, because of his ability to see the importance of democracy and freedom. Buddha, because he was a very subtle mind; he was very intellectual. Indians: Shankara and Ramanuja. On the Western front, David Hume, the Scottish empiricist, who in some ways has beliefs similar to those of the Buddhists. And Immanuel Kant, who was concerned with the reconciliation of science and human freedom, gearing science towards human values.

Suppes (Stanford University): Among the modern philosophers I admire William James and John Dewey. James has a lot of flair that Dewey doesn't and Dewey has other virtues that James does not have. I think highly of Quine's writings.

Woodruff (U.C. Irvine): Well, I have a license plate that has the name of a philosopher on it--Rudolph Carnap. He was [besides being a pioneer in logical positivism] a wonderful person.
IV.
Which Ethical System Do You Most Admire?

Arntzenius (University of Southern California): Utilitarianism, mainly because you can distinguish between rights based attitudes and procedural based systems and happiness based systems. I'm more interested in happiness based systems because it seems to me that no matter what your rights based system is, according to it, it is always possible to find some situation which is justified [by rights based systems], e.g., where half of the world is starving and you just can't see that it is. I can't accept a moral theory that in some circumstances it is okay that people in the world are starving; it seems to me that roughly speaking the thing that I really care about is unhappiness of people, because it is clear that people who are starving are not happy. The ultimate standard of a just society is how happy the people are in it.

Beckman (Harvey Mudd): Aristotle's: it avoids Christian moralizing by preceding it and it addresses the concept of living well in a general and well-balanced way.

Blake (Loyola Marymount University): It's funny to talk about ethical systems as being admirable. I'm not quite sure how I'd answer that question, whether there is one I find most admirable. Aristotelian philosophy strikes me as profoundly commonsensible. I find that very admirable.

Churchland, Paul (U.C. San Diego): I find the ethical views of Aristotle most admirable. Aristotle felt that to become a morally good person is to become practically wise, wise in the affairs of interacting with other people. I think becoming wise is a matter of learning to get along with your friends; learning to take care of your family; learning to help others to thrive; learning to depend or lean on others when you are in trouble; and it is part of a flourishing
community and that is something that you cannot write down in a basic set of laws of what the universe is and where mankind comes from. I think that we will do better if we can disengage these things to a certain degree. Religion isn't the only institution that engages in this question. The legislature in any given state or the House of Representatives in this country, or the Parliament in England, these are the bodies designed to address moral and political questions, trying to lay down rules that we are all supposed to follow. And we have some happy traditions there. I think the English history and the American history are positive and encouraging history. I think the English common law and the English legislative system similarly with the American have done rather better than some of the world's major religions in coming up with the system of rules by which to live. Whoever does it, religion or political bodies or clubs or universities, it has to be done, pursuit of moral questions is entirely consistent to the pursuit of science. I think the two will be with us for a long time. An interesting moral question and an interesting theoretical question are entirely compatible.

Cohon (Stanford University): Well, I don't think any one system has the whole story right when it comes to the moral life. I like certain aspects of Kant's ethics and certain aspects of Aristotelian ethics, if we update them. But how can these be made compatible? I also believe that there are such things as moral rights, although I am not a complete Lockean about them.

Copp (U.C. Davis): Kant. I admire the sentiment behind the ends-in- itself formulation of the categorical imperative.

Davis (Claremont Scripps College): I have always liked Kant's ethical system. [However] I don't think it's without difficulties; I think it can be criticized.

Dreyfus (U.C. Berkeley): I find Aristotle admirable who thought that ethics isn't a theory or system, but it's learning how to behave skillfully so you can do the appropriate thing in your culture which means in effect to do whatever makes you and other people lead fulfilled lives. It is the only kind of skill that you get gradually as you
live; make choices, make mistakes, and have courage to learn from them. So, as Aristotle says, if you want to know what is right and wrong don't try to find a theory (he doesn't say that but he means that). He says ask a wise old man; it's people like Plato and Kant who try to have an ethical theory and I don't think that any ethical theory which tries to give you universal pictures for acting holds up. You have to learn to do in every particular situation what's appropriate in that situation and that's the kind of skill you can't derive from a theory.

**Dumont (Mt. Saint Mary's College):** It's not really a system, but what has inspired me the most in the last few years and led me to a better understanding of the ethical domain and the problem solving is the work of Carol Gilligan.

**Fischer (U.C. Riverside):** That is hard because I see problems with everything. I would probably have to say Kant's system because the importance of dignity and respect are owed to individuals on their own free will.

**Friedman (U.C. Davis):** Spinoza's naturalistic ethics and Mill's utilitarianism.

**Griesemer (U.C. Davis):** I don't know anything about ethics so I don't admire any ethical systems.

**Jolley (U.C. San Diego):** I am attracted by Spinoza's moral theory. For one thing I share Spinoza's implicit view that morality is a system of hypothetical imperatives. I am also attracted by the central role that Spinoza gives in his philosophy to the analysis of the emotions.

**Jubien (U.C. Davis):** I believe that some sophisticated version of utilitarianism has the best chance of ultimately winning the ethical systems sweepstakes. The most sophisticated effort to date that I am aware of is presented in Fred Feldman's Doing the Best We Can.
Kaplan (U.C. Los Angeles): I would call myself a secular humanist. I have no theistic view. I am Jewish so I am strongly culturally identified with Judaism as a cultural thing. I am not religious in the sense of having theistic beliefs and so on. I think of myself as being very humanistic; as my teacher used to say, everyone has the obligation to try to develop their own gifts to the maximum degree possible. I think we have obligations to ourselves, our families. Critics of secular humanism claim that it is a very relativistic point of view, without absolute ethical principles. [Nevertheless] we must realize our own potential.

Lloyd (U.C. Berkeley): I guess I would find virtue ethics the most admirable. Well, because I think being a good person is its own reward. And I think that ontological views rely too heavily on guilt to really work well. And utilitarian views tend to be heartless.

Matson (U.C. Berkeley): The Aristotle/Spinoza idea of self-realization. Its concept of the Good is the right one, and it is free of "moralic acid" (Nietzsche).

McCann (University of Southern California): I think the Kantian view, or some version of it, is the most promising theory. Utilitarianism has, in my view, insufferable problems dealing with questions of justice, personal integrity, and so on, whereas virtue theories do not provide enough in the way of philosophical foundations for morality. The Kantians, however, have a tough set of problems in making their views intuitive and plausible, and getting rid of the daunting metaphysics Kant connected to the view. Still, it is the one I would most like to be true.

Needleman (San Francisco State): Christianity.

Ring (C.S.U. Fullerton): I'm not terribly pleased with any system, especially of ethics. But if I had to answer, I would say Aristotle. He sees a moral life as embedded in a community and not as something transcendental or as individualistic.
Rosenberg (U.C. Riverside): I admire utilitarianism, because I believe it's practically implacable and provides the most morally balanced, reasonable conclusion.

Ross (Claremont Scripps College): Socratic, because it doesn't leave much out. Never repay harm with harm, and don't just say it—you argue it, etc. Scott-Kakures (Claremont Scripps College): I'm going to assume admirable doesn't mean defensible. So, the one I find most admirable is one which may not turn out to be an ethical system or theory at all—it's virtue. That is what Aristotle makes fundamental: not what I could do, but what sort of person should I be. As I say, that may not even turn out to be an ethical theory.

Shalinsky (U.C. San Diego): I don't happen to be interested in ethics, and I find meta-ethics particularly tiresome. I must also say that I find the use of the word "admirable" even less reasonable in this context than I did with the respect to the other question which used the term. The choice of an ethical system, it seems to me, ought to be guided by distinctly philosophical considerations: the "best" one ought to be the one which is the simplest, the most intuitive, the most coherent, and so on. It ought not, I think, be the most "admirable." Use of this word suggests that one should have some sort of attitude toward the system with regards to that which is most plausibly based on philosophical grounds. This just strikes me as wrong. Having said all of this, I guess I would have to answer the question simply by saying the best ethical system, whatever it is, should be the one that best allows us to feed, flee, fight, and reproduce. [I hope this doesn't sound really flip; it's as much a reflection of the despair I've always felt canvassing (what I regard as) the various implausible ethical systems that abound.]

Smart (U.C. Santa Barbara): Christianity and Buddhism both speak of love and compassion. Those should be the guiding attitudes. Negatively I believe, as do the Buddhists, that we as humans have deficiencies we must address: greed, hatred, and delusion. An example of greed would be cutting down on the money for the homeless and poor. Hatred is seen daily expressed
through issues between groups, be it whites against blacks, blacks against Hispanics. By delusion, I think our vision is clouded.

**Suppes (Stanford University):** Well, I am sympathetic to utilitarianism but I am pluralistic. I think utilitarianism has difficulty accommodating everything. [Utilitarians] do a good job for social questions, association of goods, handling of what are called public goods, theory of the market, but not as good when it comes to rights. And I think it's possible to work a theory of rights in utilitarianism but it may very well be that ultimately we will think of that as a separate system.

**Wollheim (U.C. Davis):** I do not believe that anything systematically written about ethics is really admirable. I believe that what philosophers talk about in "ethics" is partly an invention of philosophers cobbled up out of certain fragmentary attitudes we have, which are part benign, part malign. The moral philosophers I most like to read are: Montaigne, John Stuart Mill, Nietzsche, F.H. Bradley.

**Woodruff (U.C. Irvine):** Well, I don't think of the question in that way. I think of it as, "What is right?" I'm not an ethicist and I can't claim to have views on that subject quite the way I do on some other things we've talked about. My general views about ethics go back to those of Wilfred Sellars, as so many of my views do. . . .
V.
Are Science and Religion Compatible?

Adams (U.C. Los Angeles): Certainly they are compatible. There's a lot of scientists who are religious. Science is a human activity which proceeds on certain principles, has certain institutions, and serves certain functions of human life. It has produced a large body of beliefs which are widely held among our society. There are also some beliefs on the frontiers of research that are more controversial. And religion is a very different sort of set of practices, institutions, and beliefs. The religious beliefs and practices have obviously quite different functions from those of the scientific beliefs and practices. They have, generally speaking, different subject matter. There are different motives involved in pursuing the subject. The beliefs and practices have different relevance in human life. I'm not sure if a one-level answer is desired to that question. There are all sorts of ways in which one can compare religion and science.

Arntzenius (University of Southern California): The major difference is that scientific claims can be assessed in the light of mathematical deduction and experimental evidence, i.e., objective criteria for deciding if scientific claims are true or false. Religious claims I think by their very nature are not so sensible, that is what I take to be the major difference. Their compatibility depends a bit again on what you mean by religion (it used to be the case that religion was taken literally). I take it that the evidence goes against them and that they are not compatible. After the middle ages, most people became convinced that the world had more objective grounds to believe the scientific claims than the religious claims, and such claims should not be taken literally.

Beckman (Harvey Mudd): Scientists devote a great deal of time to observing the world around them and to constructing highly technical and precise languages for communicating their
observations. I think they do this to a far greater degree than do theologians. Like theologians, scientists propose theories which are pictures or models they claim to represent the real world (whatever that is). They have in common the fact that these theories are articulate, coherent systems of thinking that communities of people take seriously and utilize in organizing and understanding their observations and experiences. If there is any sense in which scientific theories are "better" than theological ones, I would say it lies in the fact that science has substantially more practical success in predicting future events and properties in the observable world. I do not take this to be a devastating point to theology; that is, they have a perfect right to continue practicing their theoretical understanding of the world. There is an interesting side question of whether separation of church and state should also require separation of science and state. I won't jump into that one; but it is clear that we unblushingly pour huge amounts of economic support into science.

Churchland, Paul (U.C. San Diego): That's a complicated question. I'm going to deliberately make it simple. I think that religion has two sides to it. One of them good, one of them unfortunate. The two sides are this: First of all, all of the world's religions attempt to give a cosmological theory of the origins of the universe and the human race's place in it and the significance we have. Christianity does it. Buddhism does it. Islam does it. Hinduism does it. Judaism does it. All of the religions do it. And I think that 2,000 years ago, when we were very ignorant, it was entirely permissible. Indeed, I would have done this thing, to try and come up with theories that could explain these things. So, in some respect religion attempts to function as science. On the other hand, the second thing that religion does is to attempt to engage in moral questions; to find basic principles on which answers can be given to new moral problems. And, this kind of activity I think is essential to human happiness I don't think that it will ever go away. I think that it is unfortunate to some degree that this necessary activity has been the principal property of the world's religions because I think they tied it to false theory.
Cohon (Stanford University): Science aspires to discover truth by means of a thoroughly objective, empirical method that is repeatable and available to all, and to detect and root out erroneous beliefs by using such a method. It is not the aim of science to console people or to make them good or to bring them happiness, although its discoveries are sometimes very useful for these purposes (as well as for frightening people, corrupting them, and bringing them misery--also not the purposes of science). Religion takes many different forms, of course, but all those that I know of also aim at some truth, at least, although their method of getting it is usually not empirical and often not available to everyone. But most religions I know about also have further aims: to give people hope, or to improve them morally, or to lead them to eternal salvation (happiness, I take it), or to provide inner peace. Some religions are compatible with science. Some are not, e.g., the sort of Christ an fundamentalism that denies that evolution occurred or sets the age of the earth as very young. It is incompatible with science because it rejects the empirical methods of science for finding out such things in favor of appeals to revelation. Not all religions make pronouncements about such things; some say that God exists (and this is not empirically testable), and then go on to provide consolation and moral guidance.

Davis (Claremont Scripps College): Well I suppose that the major difference between science and religion. . . has to do with subject matter and mythology. Subject matter religion deals with questions like God and the after-life, and the way in which human beings ought to live which are not questions that are directly addressed typically by scientists. Scientists as human beings are of course perfectly free to talk about this question like any others, but they don't. They aren't the kind of topics that scientists deal with. A scientist will accept something only if it seems that the claim is empirically verified or verifiable. They can conduct a crucial experiment that proves it or fits into a very successful theory. But a typical religious person is quite prepared to accept something on authority because the Bible or a certain clergy person said so, and that is a myth that would not be accepted by a scientist. Are they compatible? Well, yes or no. I mean it is clear there are claims made
in religion that is compatible to some claims made in science and vice versa. Are they incompatible? Yes I think they are. Believing in God as I do, I think both scientific and religious truth are aspects of the overall universal truth which God is responsible for. So I think they do fit well together. It's just that we don't see how they fit together very well.

**Dreyfus (U.C. Berkeley):** I think that the major difference is science is trying to find out the causal properties of natural kinds which refers to water and electrons and they do have causal properties and our science is getting it right, but finding out about the ultimate particles doesn't tell us anything about the meaning of life. Since religion only talks about meaning and science only talks causality there shouldn't be any conflict providing that science doesn't try to make pronouncements about ultimate reality as some people do who are called naturalists or reductionists and that are claiming more that they can do on the basis of science.

**Dumont (Mt. Saint Mary's College):** Frankly I see both as relying heavily on faith in the unknown. Both are human disciplines/activities, expressing human aspirations and subject to human limitations/faults. Both are institutions and belief systems. I see many problems with both as they are practiced today. At its best science is humble before its limitations and honest in its claims. At its best religion provides comfort, consolation, inspiration, and motivation without claiming to have all of the answers nor to order people around. I see no reason to think that they should in principle conflict, since to me they are both human pursuits of truth. There is a lot of bad religion around (arrogant and unloving) but the good religion that is there could do a great deal to support and limit (through true humility before nature and our limitations and through a proper sense of responsibility for life) the aspirations of science.

**Fischer (U.C. Riverside):** That is a very complicated question. The main difference is in the methods. In science, methods are used proportional to belief and evidence. We remain skeptical and we are not going to form conclusions for which there is no strong
evidence. In religion, there is none of the same evidence. People accept on faith and not on concrete facts. Religion involves a leap of faith, accepting that it can be proved. They are and they aren't compatible; that depends on religion. If religion says God created the world in six days, etc., then science is probably incompatible. There are forms of religious belief that don't make those kinds of claims.

**Friedman (U.C. Davis):** Science is a traditional enemy of traditional religion. However, science is compatible with enlightened religion.

**Griesemer (U.C. Davis):** Science by common consent of practicing scientists is revisable in the face of experience (observation, experiment, calculation). Religious beliefs typically (though not universally) are not. Now the nature of the revisability of science is a difficult set of problems that I can't address briefly (I don't subscribe to a simple "falsifiability" concept of what distinguishes science from religion), but whatever it is, it seems implausible to me that we would find practitioners of a religion using them to revise the tenets of their religion. I do think science and religion are compatible in the sense that we all live with logically incompatible beliefs, so science and religion—even if they entail a contradiction like, evolution says humans evolved from primitive ancestors and religion says we were created by God—are compatible in a practical sense. And this practical sense is the sense that goes in science, too. A contradiction that is never noticed or never invoked in a argument can't do much damage, so it doesn't matter too much if some of our beliefs are logically incompatible. This fact allowed many famous evolutionary biologists and other scientists to also practice a religion. However, there are certainly some sciences (e.g., evolutionary biology, geology) and some religions (e.g., the form of biblical literalism that goes by the name of creation science) that are incompatible in both logical and practical senses. One can't believe and practice both together.

**Jolley (U.C. San Diego):** The short answer is that the claims of science are empirically falsifiable, those of religion (at least on one
interpretation) are not. Whether religion and science are compatible depends on how religious claims are interpreted.

**Jubien (U.C. Davis):** The major difference is that they generally have distinct goals (e.g., theorizing about the nature of the physical world versus saving souls). To this extent they are compatible. Of course, some religions make claims that are in conflict with science (not to mention common sense). Such claims may be an essential part of certain religions, but they aren't an essential part of religion per se.

**Lambert (U.C. Irvine):** I think there are two major differences. In science, you can strive to be able to predict phenomena. Predictions are different than prophecies. In science, you also try to find corroborative explanations. Those are explanations which can be corroborated by appeal to experience. In short, I think these are two segments of rational activity. There are characteristics of science that are simply not characteristics of religion. So I think the difference is in these two activities. Predicting on the one hand and producing corroborated explanations on the other, that's scientific. I don't think that's part of religion. I think that science is a kind of rational activity. Those are two segments that I do not think of religion as a rational activity. Though there is a tradition in which it would be nice if somebody actually produced proof that God exists. In fact, one of my friends by the name of Robert Meyer, a mathematical logician, has written a paper entitled "God Exists." He proved the existence of God by using some of the materials in mathematics. Surely, religious activity I regard as not irrational but other than rational, outside what we pretend to be rational. I don't mean every part of it. Its goals are not those of science and its activities.

**Lloyd (U.C. Berkeley):** Well, in religion you have a lot more scope. You have a lot more freedom to believe what you believe. In science there is a certain amount of play, but according to the nature of science, people have to agree that the evidence offered supports the conclusion. It tends to be much more restricted. Scientific knowledge is more restricted. I think that religion and
science are compatible, but I think that they are about different things that we can observe and run into, and manipulate, and build things with and understand. And I think that religion is about everything else.

Matson (U.C. Berkeley): Science is based on beliefs that have been tested (note: I do not say, "are in principle testable") in experience. Evolution favors believers whose tested beliefs are true. Religion is based on untested beliefs that are held on account of their social usefulness. Evolution does not tend to eliminate such beliefs on the ground of factual falsity. Thus, science and religion are fundamentally incompatible, insofar as science is able to extend the scope of experience to the point of putting religious beliefs to experimental tests (as has happened with Christianity and Islam at least).

McCann (University of Southern California): The major difference is that science looks to empirical evidence as the touchstone of truth, whereas many religions see themselves as resting on faith rather than evidence . . . I also point that, again historically, the scientific claims in these disputes have been the only one vindicated.

McGray (University of San Diego): I fail to see any real conflict. The questions are different.

Needleman (San Francisco State College): Yes.

Neumann (Claremont Scripps College): It can or can't mix; it depends. The problem is that religion is very mythical, most of it doesn't change, which in turn is completely the opposite of science. In reality science and religion are only man's way of finding a reason for existence.

Pippin (U.C. San Diego): Yes, I think they are compatible. Religion seems to be an expression of some sense of a deep human finitude, an ability to direct or orient all or our most fundamental activities on the basis of well-grounded reasons. Since this is not
itself an empirical claim about anything, it is not inconsistent with anything in science.

**Roth (Claremont McKenna College):** Religion operates with certain categories that don't enter into science. The main one would be something like the category sacred. Science can have a relation to that idea, but when it does it's really beyond the parameter of science to some extent and starts being religious. We know people who study science can often have religious sensitivity that is increased because of what they know scientifically, but I think when they are expressing their religious or spiritual views that they are probably leading outside the realms of science. So I think that would be the biggest difference, that religion has attention focused on things (we might use the words sacred or divine), and science does not. That leads to some other differences that we have to deal with. The ways communities are formed and the way rituals occur you could argue that science has its communities and rituals and practices and religion has its own as well. In other ways are science and religion compatible? I would say certainly they are. Partly for reasons I mention that they are not operating as competitors, but as a way of organizing and looking at experience as different dimensions. Some people would argue that the dimensions are incompatible. I don't find that myself.

**Schwyzer (U.C. Santa Barbara):** They can be compatible. A good Christian can still believe in science. He can believe in Genesis as a myth. I don't believe that religion can swallow the evolutionist theory, just as I don't believe that science disproves religion. Religion has a different origin than science; it is not from an intellectual motivation. They both answer different questions. They have different realms of inquiry. Religion deals with the fate of mankind and is not straightforward curiosity as is science.

**Shalinsky (U.C. San Diego):** The major difference is faith, while the other is required to meet a stringent set of requirements. That is, a scientific theory has to meet a number of criteria: it has to explain empirical data, it has to accurately predict events, it has to be internally coherent. Religion need not meet any of these criteria
need not, by definition, be confirmed. Even so, it had an interesting feature: any evidence, even countervailing evidence, can be used in its support. Thus one can point to the absence of God as proof of His existence, the presence of evil as proof of His existence, the presence of flowers and bees as evidence of His existence, and so on. The question of the compatibility of religion and science depends upon some characterization of the religious doctrines involved: if the religious claim is that humankind started with Adam and Eve, then such a claim obviously clashes with evolutionary theory; if the religious claim is that humans ought to observe the various commandments, then such a claim might clash with scientific theory. The question really depends upon the scope of the religious theory: if it makes claims about the ultimate nature of reality, then there may very well be conflict; if it simply concerns questions about morality, then there may not be.

Sircello (U.C. Irvine): Science and religion are compatible, but they don’t have anything to do with one another. In other words, they answer the same questions, but in a different way. Where science is a controlled means, religion is not.

Suppes (Stanford University): I think that religion of course in many ways has helped form the setting for modern science and that there are forms of religious beliefs that people can have which are very inconsistent with good evidence. A good example would be the creationist movement. Creationists are against teaching evolution as a scientific theory. Now I think that the creationist viewpoint is naive and a bad example of the interaction of religion and science.

Wollheim (U.C. Davis): Science offers explanations. I do not see how religion can, because what religion proposes goes beyond what we look to for making things explicable. God could not be constrained by our categories.

Woodruff (U.C. Irvine): I think originally religion was a substitute for science. That is, as a method of control over the environment or as an explanation of things. So to the extent that that is true there is
some competition between them. But certainly my own view of theology, as expressed before, is not incompatible with science. I don't see any reason for them to be incompatible. I mean fundamentalists who believe in the inerrancy of the Bible, of course there will be a conflict there. But I don't see that as a necessary aspect of religion. So I think they are perfectly compatible. They are just addressed to different things. Science tries to describe the way the universe is, and religion tries to give us some kind of emotional relation to the whole.
VI.

Does God Exist?

Adams (U.C. Los Angeles): Yes. If the question is "Do we know that God exists?" or "What sorts of reasons would we have to have to believe in God?" well then the answers get pretty complicated. But the question is "Does God exist?" I believe that God exists.

Arntzenius (University of Southern California): I respond that I have no idea how you can decide such a question; you can have your opinion one way or the other. My [sense] is that I'm not exactly sure what it means to say that God exists. I just can't say how you could argue for or against it.

Beckner (Pomona): Well, my view is that God does not exist. So, I would classify myself as an atheist. However, I cannot prove that he doesn't exist.

Blake (Loyola Marymount University): Yes! Yes, he does and I think that there are grounds for believing that which are not simply matters of faith. I guess I do think there are good indications in human nature and physical reality to indicate there is a Creator. I think there are good indications here in the very nature of human history to [suggest] that there is some kind of personal God, who is benevolent. Now what might I believe beyond that I would attribute more to faith than reason, but I do think there are rational grounds for thinking there is a God.

Cohon (Stanford University): I don't know. It would be nice if God did exist. But I don't think there are any successful proofs of God's existence, nor are there other sorts of objective evidence, so the only grounds for belief are personal religious experiences, and I have not had any of these.
Copp (U.C. Riverside): No, unless the context and considerations of politeness dictate otherwise.

Davis (Claremont Scripps College): I will respond by saying yes; I believe God does exist.

Dreyfus (U.C. Berkeley): I would say that the old God is dead, what Heidegger calls the Ontotheological God, which means a god which is outside of the world and is the ground of the world and explains what caused it and makes it intelligible.

Dumont (Mt. Saint Mary's College): I believe in God but not in the traditional Western European male sense. I think there is a power or force greater than myself. I think of it in very female and earthly terms.

Fischer (U.C. Riverside): I do not believe that there is a god. I don't know if he does exist; he might. I just don't know. You might want to say that I am an atheist or agnostic.

Friedman (U.C. Davis): Agnostic toward Judeo-Christian God. Favorable toward God as Nature as God.

Griesemer (U.C. Davis): I respond by asking what is God? And why do you capitalize the word (if you're not even sure God exists, aren't you presuming an answer by capitalizing the word as if God were a person)? Also, there are various things one might mean by existence (physical objects and concepts might both exist, but not in the same way), so I'm not sure which sense applies to God because I don't know what sort of thing God is supposed to be.

Jubien (U.C. Davis): I don't know whether God exists but, unlike Pascal, I would bet against it.

Lloyd (U.C. Berkeley): Well, the first thing I would say is that's a very difficult question. There are a number of different ways to decide. Some people think that whether God exists should be decided
by reason; some people think it should be decided by faith. I think that reasons can't prove the existence of God, and I also think that that's not a reason to believe.

**Matson (U.C. Berkeley):** Negative.

**McCann (University of Southern California):** What I am interested in knowing is why somebody wants to know or what they think hinges on the answer. One of the reasons I am especially interested in Kant, one of the reasons why I think he is an important transitional figure, is that by contrast with Newton and Locke and others Kant was trying to lay the foundations for mechanistic science in a way which would not require any appeal to God, to God's actions and attributes at all. In fact, he showed that no such claim can be rationally defended. So let's say for the purposes of developing a metaphysical model that is going to be the foundation of natural science, you should not have to worry about the question whether God exists or does not exist. For any purposes in philosophy you should not ask or wonder about the question at all. It should not play a role in any kind of philosophical debates. If you want to get a good theory of morality, you better get one that does not depend on there being a God or not being a God. If it is a matter of personal belief then I would just be as interested to know what the person who wonders about this, what they are looking for, or what need they feel they have that is settled one way or another by an answer to that question. I find it interesting that a lot of people ask the questions without context, out of the blue. That does not, even to me, make sense to start talking about unless you know why you want to know and what difference it would make what the answer would be.

**McGray (University of San Diego):** Of course God exists. The interesting question is what kind of being God is.

**Needleman (San Francisco State):** Yes.

**Pippin (U.C. San Diego):** In my view the answer is no. But that can be confused with a commitment to scientism and naturalism
which I disagree with. The right answer is probably something like: it depends on what you mean by God.

**Ring (C.S.U. Fullerton):** I am rarely asked, but if I were I would say, "Don't be silly."

**Rosenberg (U.C. Riverside):** I believe I would say no.

**Shallinsky (U.C. San Diego):** No. First, there's no empirical data; second, hypothesizing God's existence serves no explanatory end.

**Sircello (U.C. Irvine):** No. Just no.

**Smart (U.C. Santa Barbara):** God exists, but isn't at all what people think. It depends on who you listen to. If you listen to preachers on television it would seem as if they had a telephone line connection with God. God isn't as crude as that.

**Wollheim (U.C. Davis):** No
VII.
What Do You Think Happens To Us After Death?

**Aebischer (C.S.U. Los Angeles):** No one can answer the question of our state after death, but I would like to think we could look forward to being reincarnated again and again--exploring many forms of being and consciousness. Failing this, I take solace from the past that my body is practically immortal, though it will undergo a million transformations, in that there is a conservation of all matter and energy. Likewise, I think one's mind, heart and character live on in the results they create in others and their environment. It matters little whether the "ego" known as "Scott Aebischer" continues or not, but one would hope that one's achievement of consciousness or love is not lost to the wider world.

**Adams (U.C. Los Angeles):** Well, I don't seem to know in any detail. I do believe in life after death. I think we just have to believe that it's good.

**Arntzenius:** (University of Southern California): Nothing.

**Beckner (Pomona):** Nothing. When you die, you decompose. That can be proved.

**Blake (Loyola Marymount University):** I'm not sure about that. I mean on religious grounds I think there is life after death. On the basis of faith, I believe in life after death. An interesting question is, "What's the form or character of life after death?" I guess a lot of people think of it in terms of some sort of spiritual non-physical existence. I'm not sure about that. There's an ancient Christian scripture that [states] there will be a resurrection of the body and the life after death is eternal. That seems to me to make sense. There seems to be nothing contradictory about that possibility.
Churchland, Paul (U.C. San Diego): I think that we disintegrate. I think that structures which make up our consciousness and mind and our moral consciousness . . . these can survive in a sense that they are recreated to a degree in our children, or in our friends or in our students. But that isn't really a survival of me, merely the survival of something that I stood for or some features I had. I am a complex matrix of molecules and when that matrix falls apart and disappears, I fall apart and disappear, so I am determined to do as much good as I can while I'm still here.

Cohon (Stanford University): The evidence shows that we decompose. I admit it is hard to believe that a personality can abruptly cease to exist, but that seems to be the case. Our influence on each other is all that remains of us.

Copp (U.C. Davis): To us? Our bodies decompose.

Dreyfus (U.C. Berkeley): I think nothing happens to us after death. Once we are dead we stay dead. But I think that like another one of my favorite philosophers that I forgot to mention, Soren Kierkegaard, that one can achieve eternity in time. That is you can get a meaning in your life that gives it stability and is remembered after you. And that I am afraid for better or worse is the only kind of eternity we get.

Dumont (Mt. Saint Mary's College): I'm really not sure. Since my metaphysics is not dualistic the answer is not at all clear. I hope that some of the good that we all do and achieve lives on after us, even if only as it contributes to a force or positive power in the universe. I am leaning more toward reincarnation, though I would not explain it from a dualistic perspective of the migration of souls, but more as the rebirth of one's spirit.

Fischer (U.C. Riverside): I think my sense is that we go out of existence and experience a blank and our consciousness ends.

Friedman (U.C. Davis): Either death is a blackout for us, or else we are "housed" in mind-fields.
Griesemer (U.C. Davis): This is a trick question. I think we rot after death. I don't believe there is a non-material substance (soul) that will persist after bodily death, but I don't have any better argument for my position than the dualist does for his/hers.

Jubien (U.C. Davis): We cease to exist.

Kaplan (U.C. Los Angeles): Nothing. I am an atheist and I think we are part of the natural world. I think the same thing happens to us after death as happens to dogs, cats, and frogs. When the body shuts down, we shut down.

Lloyd (U.C. Berkeley): Basically, I think that we are animals that we die and that's it. Our chemicals go off into the world. They're either burned if we are cremated, or if we are buried the chemicals gradually change and we decompose and that's the end of the body. Spiritually I'm not sure; I guess I find it hard for me to believe that what remains of us spiritually will be identifiable as us. I don't think that what remains would be any kind of consciousness that would be particular to us.

Matson (U.C. Berkeley): Nothing. We're dead.

McCann (University of Southern California): Basically I would respond to this similarly to the question about the existence of God. I would be interested to know why this is supposed to be a significant question. It often comes us in the context of morality, or the hold morality is supposed to have on us, but it very rarely gets beyond a very crude sort of schedule of rewards and punishments. It is a question that can have some interest in terms of the nature of thinking things or persons, but that is not the interest most people have in it.

McGray (University of San Diego): Either heaven or hell.

Needleman (San Francisco State): It depends on our life before death.
Neumann (Claremont Scripps College): Other than fertilizer—nothing. Let me ask you this, "Where were you before you were born?" Well, it's the same thing when we die.


Ring (C.S.U. Fullerton): If we're lucky, we are buried or cremated and remembered for some time.

Ross (Claremont Scripps College): I don't know. I haven't died yet and come back to tell anyone about it. You have to have "faith" to know what will happen. Although it will be the best sleep you ever had.

Rosenberg (U.C. Riverside): Oh nothing. We die. I mean, annihilation is the right thing to say.

Scott-Kakures (Claremont Scripps College): Nothing. We just die.


Smart (U.C. Santa Barbara): I believe God dwells inside everyone, that He's working in each one of us. So if God continues after death, then I suppose you can consider your self part of God when you die.

Wollheim (U.C. Davis): I do not think we exist after death so nothing good, bad, or indifferent could happen to us. Sometimes I wish that this were not so.
VIII.
Free Will vs. Determinism?

**Aebischer (C.S.U. Los Angeles):** I am an "emergent evolutionist" in that I hold the universe as capable of producing novelty, including new levels of creativity which are not strictly determined by earlier causes. I am a "tychist" in that I hold that there is real "chance" operating in experience, and that laws of nature are no more than statistical regularities. I am an "indeterminist" in that I hold that human consciousness is underdetermined by external influences so that it can and sometimes does exhibit non coerced agency. I believe that the directing of our agency to ends that transcend selfish desires is the ultimate experience of freedom and the beginning of morality.

**Adams (U.C. Los Angeles):** Complex. I suppose the first question is "Do I think that free will is compatible with determinism?" I think my answer to that is that there is different concepts of freedom and freedom in some sense is just as compatible with determinism and in others is not. I am strongly inclined to believe that determinism is false. I think that is greatly important from a theological point of view. If determinism were true, we would be something like puppets. But in relation to each other, I am inclined to be a compatibilist. That is to say, I don't think that I ought to stop praising and blaming people and holding people responsible and so forth if I became convinced that determinism is true.

**Beckman (Harvey Mudd):** Determinism as such is merely theoretical and theories are merely advisory. Thus, if a theory suggests that my actions are all determined by factors other than my own perceptions, conceptions, impulses, etc., I am free to consider its potential usefulness to me as well as to discard it as useless. In the phenomenal realm, which is the only realm of stable importance, freedom of will is obvious.
Churchland, Paul (U.C. San Diego): I think the age-old question is based on a number of mistakes. I am quite prepared to take part of the determinist's side of the argument. I think that human thought, human agency, human moral perception is all based in the activities of the physical brain. I believe that these things are thoroughly described by the laws of nature, of physics, and of chemistry, physiology, electricity and so forth. So I accept the physicalist view of nature that determines us typically. I accept this because I believe that's where the evidence points. On the other hand, I think that notions like moral responsibility are perfectly genuine and legitimate notions and I think that we can still draw perfectly hearty distinctions between people who are morally good and people who are morally bad; between people who deserved to be punished and people who do not deserve to be punished; between the wicked people and between good people and I think we can still find perfectly good reasons for punishing people who are cruel to their fellow men and for rewarding those who are kind. I'm quite prepared to hold people responsible for what they do, but I think that understanding how the brain works, understanding how character develops and understanding how brain chemistry will go wrong will allow us to have a more humane view of when we should punish people, whether we should punish people and how we should punish people. I think the present system of prisons for example is appallingly cruel and we use it only because we don't know anything better to do. If we understand better how our brains work in the social and the emotional dimension we might be able to have a much more humane legal system than the one we got now. But, I am not about to give up moral reasoning. I think those things will be with us forever.

Cohon (Stanford University): At the moment I don't have a view about this issue, because there is a class of arguments I know nothing about. I used to think that nature, as understood by science, is deterministic, and that metaphysical freedom in the traditional sense (not being caused to act by any causes outside oneself) was therefore incompatible with the fact that human beings are part of nature. Since I thought that we are a part of nature, I concluded that we are not metaphysically free. However, there are
now philosophers of science who deny that a scientific understanding of nature must be deterministic, and who, in fact, reject determinism in physics and the other sciences. Perhaps this leaves room for metaphysical freedom in human actions. I agree with Kant that when we make choices and act, we necessarily think of ourselves as being free. But Kant notes, this doesn't show that we really are free.

Copp (U.C. Davis): I do not have a fully developed position but I would aim to defend a version of compatibilism.

Dreyfus (U.C. Berkeley): That is too hard for me to answer. I think that somehow or another we have to do justice to both of them, but I don't think that anybody understands how to do justice to both of them. I don't even know if there is much I can say. The Kantian view that Donald Davidson defends is pretty attractive, namely that we are free under the description as agents and determined under another description as objects. But that is not very satisfactory since that way it looks like we are not free. I give up! I don't know.

Dumont (Mt. Saint Mary's College): I think that question is posed in the wrong way. Humans are limited in their freedom, but freer than we usually think we are. The whole project of life is to become freer by wrestling with our pasts and with the temptations to give up, submit or conform to outside forces. Intentions, desires, wants, reasons for acting, motives are not internal causes—they are not events in the ordinary sense. I am not a dualist and I am not sure how to explain the metaphysics of free acts but phenomenologically freedom is a reality. I also think that the concept of freedom in Western philosophy is too individualistic.

Griesemer (U.C. Davis): Free will versus determinism is too hard a problem for me. I guess I'm inclined to say we have free will even if the world were determined, but I can't even begin to say why I think so. I guess I think the world is not deterministic, but I'm not sure that is even a relevant fact in answering the big question. I think that we're in trouble whether we're Cartesian dualists and say
that there are two kinds of substance and free will is a provenance of mind (since we have to explain how mind can interact with determined matter), or whether we're materialists (since then we have to explain all the strange phenomena of qualia, consciousness, etc.). My short answer is I just don't have a perspective on this age-old question.

**Friedman (U.C. Davis):** The best there is only soft determinism. Our freedom is compatible with this.

**Jubien (U.C. Davis):** I have no worked out position. I am really inclined toward belief in free will.

**Lloyd (U.C. Berkeley):** I believe in free will. I believe that we have free will and that the problem as it was set up is misleading because it relies on a picture of science which is not accurate. It's not true I think that our scientific theories [univocally claim] that the world is a deterministic place. I think that our theories don't say that. . . .

**Matson (U.C. Berkeley):** I have some doubts about the truth of determinism, though I don't think this issue is really relevant to the controversy. I also have some doubts about "the will," which is a concept that ancients seems to have gotten along O.K. without; but again, I'm not sure this is crucial. I think Hobbes, Locke, and Hume are right to point out that the opposite of freedom is compulsion, not causation, and that consequently we act freely whenever someone or something else doesn't force us to go "against our will."

**McGray (University of San Diego):** Compatibilism. I see no real conflict between the two. Free human conduct has a certain kind of causal explanation.

**Pippin (U.C. San Diego):** I am what is called a compatibilist. I believe it is possible to assert that both claims are true and I am in sympathy with Hegel's way of explaining how.

**Ring (C.S.U. Fullerton):** In so far as that is a philosophical question about the possibility of free will (for not all us have it all
the time or in all actions we perform) I hold to the free will side of the ledger. But the arguments for that are long and involved.

**Shalinsky (U.C. San Diego):** As a thorough going materialist, I think that all facts are physical facts, and a physical theory will explain all and everything that needs to be explained. With respect to human psychology, only a neurophysiological theory can explain human behavior. This is not to say that our current neurophysiological theories adequately explain human behavior; it is only to say, rather, that a sufficiently advanced (or completed) neuroscience could do so. Applying this view to the free will/determinism debate yields somewhat confusing results. On the one hand, commitment to thoroughgoing materialism seems to rule out adherence to such notions as "will"; on the other hand, it seems to entail commitment to some sort of causal determinism. My personal view is that it does not entail the latter, and that some sufficiently advanced chaos theory will adjudicate the debate one way or another. I will say, however, that materialism of the sort I advocate will probably not countenance such terms as free,"reason," "self," "person," and so on--the typically appealed to in free will discussions. It might simply be the case, therefore, that this "age old question" is relegated to the graveyard, alongside such other "age old questions" as whether the seat of thought is the liver, or whether the Earth is flat.

**Suppes (Stanford University):** I am very much on the side of free will. I think that the modern world of physics shows that determinism is in general a transcendental question, that is, a question that transcends experience. . . .

**Wollheim (U.C. Davis):** I am not convinced that there is an incompatibility between the two. It seems to be possible that free action, say, can be explained in terms of a certain kind of causation, that is, where the cause is a certain sort of desire belief. Of course, free will is a narrower notion than freedom, because it introduces the will, which is for me a rather hard to explain notion. Because desirable actions that are free are caused by desired beliefs.
Woodruff (U.C. Irvine): I actually think that is a very complicated question. Here's what I tell my students what I think is right. I think we are machines. We may or may not be deterministic machines. That is, quantum effects and absolute probabilities may or may not have some role to play in the way we work. But if they do, that working has nothing to do with our freedom. It's been clear ever since ancient Greece, to people who have thought carefully about the problem, that absence of determinism is not freedom either. What is wanted is self-determination or autonomy. What I think is in that sense we are machines. But we're machines that work in a particular way. In that working, we use a certain model of the way the world is. The model that we use, in fact, is one that has branches in it, that is, one that sees alternate possible futures as real. [It] sees our choice mechanism as making a difference in choosing one or the other of those. So if I try to decide what to do, then I am considering alternate possible futures, and the mechanism in me is producing a choice. Now I actually believe that that mechanism is a deterministic mechanism, but it works with a picture of the world that is indeterminate. I don't think that what I just said is contradictory. In fact, I could program a computer to make choices. Of course we know a computer is deterministic, but it's running a program that operates on this indeterministic model (one that has different alternatives) and chooses between them. I think that if that's right, as long as we are acting in the way that we programmed by genetics or heredity, we have to use this indeterministic model. Determinedly free would be a good way to put it. I'm saying we are mechanisms, but our program uses a model of the world that would imply that freedom is real. That implies there are real alternatives.
IX.
Do You Think Artificial Intelligence Will Equal or Surpass Human Intelligence?

**Adams (U.C. Los Angeles):** I think the first thing I would say is that I do not have a very informed opinion on artificial intelligence. I assume that in some respect artificial intelligence has already surpassed human intelligence. My computer can do some things that I can't. But do I think that someday computers will be able to do every task that humans can handle? No, I don't really think that. But that may be as much of an expression of prejudice as anything else. It's not based on a particular knowledge of what computers can do. That's a question really outside my area of expertise.

**Arntzenius (University of Southern California):** It depends a bit on what you mean by intelligence. If you mean the ability to do IQ tests well then I certainly think that we will be able to design computers that will do the tests better than we can. Why? Well we've been able to program computers to do arithmetic better than we do; they certainly play chess better than I do. In practice we seem to be a very complicated and very efficiently designed machine. I doubt very much if our explicit design will be able to construct something that in almost all areas outperforms us. I'm not even convinced that the hardest problem is to design something that has the mental capacity that we do.

**Beckman (Harvey Mudd):** There are several different issues to be considered in artificial intelligence. As you've phrased your question in terms of "intelligence," we are forced to ask how intelligence should be assessed. If, for example, we accept the idea that intelligence should be measured by how rapidly something can perform complex mathematical tasks or store and retrieve mathematical information, then computers have already beaten the human mind by a long shot. However, if we interpret intelligence in some more complex way--say, translating between human natural
languages or making design decisions based on more than technical factors—it's not entirely clear whether computers will ever beat the human mind. If we ask the question in terms of "consciousness" rather than "intelligence," then I don't hold out much hope that computers will ever replicate human consciousness; in other words, I think that artificial intelligence will always be "artificial" in significant ways.

**Churchland, Paul (U.C. San Diego):** I think that it will surpass human intelligence. I think that in some dimensions it surpassed human intelligence twenty years ago. However, it surpassed it in only a very narrow capacity—the capacity for a sheer repetitive computation like doing long division, or multiplication, or addition or things like that but intelligence is a very much broader capacity than that. I think it will take fifty or a hundred years before we understand the human brain fully. When we understand how the human brain works, I think it will then be relatively straightforward, though it will be difficult. It will be conceptually a straightforward technological matter to make an artificial system which can do the things that we do. I don't think we will do that however. It's too easy to make human intelligence already. You only need a loving couple to do it. So we're not going to put up millions of dollars to make artificial humans. What we will do instead is to take artificial intelligence systems for some scientific purpose that we create some subset of the human capacities or perhaps will show some cognitive feature that we don't have at all. After all there are many more kinds of brains possible than just the human brain. I fully expect in the fairly near future for artificial intelligence to exceed the humans in many dimensions. I don't know how this is all going to come out. I think it's going to be a very exciting and interesting adventure and I'm not entirely comfortable with every aspect of it, but I think it will happen.

**Cohon (Stanford University):** I can't predict what kinds of machines will be built in the future. On the one hand, I am inclined to think that, since the human brain is made of matter and it can think, it is possible to make other things out of matter that do the same things. On the other hand, much of what we classify as
intelligent is socially defined and can only occur within a social context; this is especially true of speech. Consequently, it may be that no real machine intelligence is possible in the absence of some sort of machine community or society of machines. Anyway, while scholars are talking about science fiction scenarios, real researchers in machine intelligence are very far from understanding what human intelligence is, so at present it is impossible to predict whether machine intelligence can be made to equal it. For example, it is not understood how human beings recognize faces or understand speech of unknown persons, and psychologists are only beginning to figure out how people make sense of information that is presented to them in written form. Until we know what human intelligence is it is impossible to say whether machines will be able to duplicate it or surpass it.

Copp (U.C. Davis): In some respects, yes; in others no, I doubt it will surpass human creativity. But I am only projecting up to 50 years. Beyond that, who knows?

Dreyfus (U.C. Berkeley): I have written two books on this subject. There are two kinds of artificial intelligence. The first kind, which started in about 1960, was devoted to using computers that were called physical symbol systems. The computer would have in it symbols that represented features of the world and the programs of the computer would be used to make inferences and deduce conclusions from this representation of features. I said in 1965, and in my book in 1972, that this kind of artificial intelligence would not work because of our way of being in the world is not having in our mind representations and features. It turns out that I think (and lots of other people now are beginning to think) that I was right, that it is failing. There was an article that had A.I. on the cover and quoted me and agreed with me that symbolic A.I. did not succeed. But now there is a new kind of A.I. using computers doing what is called simulated neural networks. I think that that will never produce full human intelligence, but I think that it is not philosophically wrong like the symbolic A.I. but I do not think that it will work because the brain is too complicated and we do not know how it is wired up, so we can't make a simulated network that is enough like it even
if we could. I think that the fact that we have bodies and move around in a world and have a culture is part of the way that our neural network gets tuned the way it is tuned and a computer that just had a neural network and passively took in what is called input vectors and paired them with output vectors [will not] have our kind of intelligence.

**Fischer (U.C. Riverside):** In certain ways, such as calculations, computers are already equal, if not better. They are also continually progressing in mechanics. However, I remain skeptical as to whether computers will ever be as insightful or as creative as the human mind.

**Friedman (U.C. Davis):** No, never! Because we lead from it, and so we will be that much smarter. I've believed in man-machine relations for a long time.

**Griesemer (U.C. Davis):** I'm not convinced that artificial intelligence is intelligence, so I don't think there's yet a question about whether it will bypass human intelligence. I think intelligence is a property of certain biological entities, so whatever computers are capable of, it isn't intelligence (unless computers are capable of being certain sorts of biological entities!). It's merely by analogy that we call what computing machines do thinking.

**Jolley (U.C. San Diego):** I am not well versed in this debate, but no I don't think that artificial intelligence will equal or bypass human intelligence except in very limited spheres (such as the ability to perform calculations at fantastic speed). My reasons are those which Descartes gives in the Discourses of Method, Part V.

**Jubien (U.C. Davis):** If "artificial intelligence" just refers to the capacities of computers, then I think it already exceeds the capacities of human intelligence in certain ways (e.g., speed of computation). I don't think computers will ever have fully "human" intelligence because I don't think they will ever have mental experiences akin to those that humans have.
Kalish (U.C. Los Angeles): There are things which computers can do now which human beings can't do and the speed with which you can do computations and things like that are incredible. Also computers can store an enormous amount of information in its memories and you can get it back. On the other hand, it is quite well known that there are problems which you cannot prove and that there is no algorithm which will ever solve them. Human ingenuity is the only way they will ever be solved. So these are two entities where the human mind and the artificial machine differ. They both have enormous qualities and it is not a matter of trying to say that there are two things in which one is a little better than the other. There are certain things that one can do that the other can't and we are getting better and better. My gosh the things that can be done now and the way you can communicate with people is fascinating. So let me put it this way, I don't think that any person of your generation who doesn't become computer competent is going to be able to compete in this life. There are mathematical problems that only the human mind will be able to answer because we can prove that there is no way we can program a machine to answer the question.

Kaplan (U.C. Los Angeles): There is the so-called Turing test. When you carry on a conversation and you can't tell if it's a machine or a person. I don't really have a view as to whether we will be able to create machines that will pass the Turing test. It's clear that machines can already do tasks which require a kind of intelligence, much better than we can. I use a spell checker because it is a better speller than I am and quicker. I don't know of any machine that is as creative as I am. I am very skeptical to whether we will be able to do it, unless we start to build biological machines.

Lambert (U.C. Irvine): Well, there are several things to think about it. First, it's a difficult thing to say what human intelligence is and it's hard to tell whether artificial intelligence will surpass human intelligence or not. We are not even clear what human intelligence is. But if it means, for example, that machines will be able to do certain things better than human beings would do
intellectual things, well they can already do things better than humans. For example, machines, the new computers, put in parallels, can solve differential equations infinitely faster than human beings can do. Now, whether you're going to call that a case of surpassing human intelligence, I don't know. It certainly can do things faster. There are respects in which computers just don't even come close to human beings. So I'm inclined to say or view the whole question of, will computers ultimately surpass human beings' intelligence not to be a clear question. As I've suggested, if you look at intelligence in one way, they're not. So it's not a well-formed question for me.

Lloyd (U.C. Berkeley): I will give you a typical philosopher's answer for this. It depends in what you mean by intelligence. Already computers are able to do certain tasks which we take to be cognitive tasks much better than we can. I don't think this makes them more intelligent. I think that there are many kinds of human intelligence. There is artistic intelligence, there is mathematical intelligence, there is a kind of verbal ability, there is the ability to see the whole picture, the ability to see both sides of an issue. There are just so many aspects of human intelligence which are vital. I don't see artificially constructed machines as being able to perform all of the functions which we would naturally attribute to human intelligence. I do think that machines will be able to surpass us on some of these tasks, but not on intelligence per say, not on intelligence overall.

Matson (U.C. Berkeley): No--at any rate not using any conceivable refinement of the Turing machine (digital computer). Turing machines necessarily follow context-free algorithms; that is not the way we think.

McCann (University of Southern California): I guess it would depend on what factors you have in mind. In terms of calculating lots of big columns of numbers quickly, obviously computers can do that. Although of course whether they are actually computing or calculating as opposed to what is really happening, a bunch of
electrical states flip-flopping inside the machine with the results being interpreted in certain ways. The thing that stands most in the way of getting a straightforward yes or no answer is just that I think we do not have much of a hint of what human intelligence is. I am very persuaded by Howard Gardener's work on multiple intelligence. He is claiming that the sorts of capabilities for doing certain tasks quickly, that we called intelligence, get measured on the standard intelligence test, and things like that in our culture are just a very narrow range of human competencies that are artificially selected out or artificially highlighted. In a South Pacific's Island's culture, for example, the ability to navigate by stars is a crucial part of intelligence, but it is not exactly noted by us. In fact, I think there is a big indeterminacy in the notion of intelligence, whether human or artificial. And then once you go on to say what are the comparisons and contrast of human intelligence and artificial intelligence the questions are sort of fatally infected with the multiple ambiguities involved in the notion of intelligence in general. There is no doubt that machines can do some things that we count as intelligent tasks better than we can, but there is no doubt that there are a lot of things that we can do with the results of some of these processes that the machines cannot and maybe would not be able to do.

**McGray (University of San Diego):** The answer is "yes" and "no." Computers are much more adept than we are at certain kinds of consistency tests and certain kinds of expert systems. But some other sorts of questions, even some simple problems in first order predicate logic, cannot be decided by any machine.

**Pippin (U.C. San Diego):** The real question is a philosophical one: What is human intelligence?

**Rosenberg (U.C. Riverside):** Yes, because human intelligence is the result of the operations of a machine. There is no reason why better machines can't be made.

**Ross (Claremont Scripps College):** No, because a computer needs a programmer to teach it what it needs to know. A computer
doesn't have an imagination and without an imagination the computer will be unable to form questions and answers itself or ways of solving problems. A programmer has to do these things, so a computer will always be dependent on programmers.

Roth (Claremont McKenna College): That's a really interesting question. The first response I would give I think if we are thinking about human intelligence at it's best, my guess is that artificial intelligence will not be capable of surpassing or even equaling human intelligence, especially if we look at the subtlety and the kind of nuances, the imaginative potential that there is of human intelligence. I'm looking more on the side of creativity. On the side of our intelligence that is laced with feeling, with aesthetic qualities, things of this kind and it seems to me to forget it at least as I'm sitting here now. That it would be difficult to imagine that we could artificially create something that would be equal to that kind of subtlety in terms of intelligence. The other part is a little fictitious, but not entirely so. If human beings fail to develop the potential of their own intelligence it's conceivable to me that we might create artificial intelligence that would be superior to ours. We might be more rational in some ways. So I think this is another thing, the human intelligence is not a fixed element; it's something that could become better or worse, depending on what we choose to do with it, how we develop it. Sometimes we are not nearly as intelligent as we think we are, or as we could be, but I guess I'm impressed by when I look at what the human mind has been capable of doing. That it seems to have a range and a scope on one hand and also a subtle dimension of creativity that I find it hard to define.

Schwyzer (U.C. Santa Barbara): It's such a frightening concept. Intelligence by itself is not very interesting. I think that some human should go along with that intelligence. It makes no sense to just have intelligence and nothing more. It's like having weight without size. We can have machines, but intelligence is a human attribute. I suppose I am a humanist. I fail to be fascinated with non-human things. I do have a computer in my office; however, it hasn't been used yet. It's good decoration.
Shalinsky (U.C. San Diego): It's not precisely clear what this question is asking. To claim that some intelligence "equals" or "bypasses" another is quite vague. It is certainly clear that many forms of artificial intelligence surpass human intelligence: the calculator can perform functions that humans cannot, a plain old digital computer can perform functions that humans cannot, and a super computer can perform functions that humans could not even dream of performing. The question ought to be phrased differently: will artificial intelligence equal or bypass human intelligence in the realms in which the latter is now superior? This is an important question, because it applies an important distinction between the kinds of intelligence behavior (e.g., number-crunching) better performed by a very fast computer processing in serial fashion, and the kinds of intelligent behavior which are best performed by parallel processors. Humans process in parallel, and this accounts for their ability to perform and understand in complicated contents. Currently, for example, the prospect of writing a computer program which will model even the simplest kinds of human behavior is quite dim. Consider, for example, the human capacity to interpret utterances: while we understand the meaning of "Mr. Smith watched the fireworks go up in his pajamas last July 4th," the computer has considerable difficulty. While we manage to recognize even as many as hundreds of different faces, the computer has considerable [trouble with face recognition]. In my view, there is absolutely no reason to think that parallel computers will not equal intelligence (even in the domains in which the latter currently surpasses the most advanced artificial intelligence)--but this is just a bet, after all!

Sircello (U.C. Irvine): Machines will be able to do more, but will not be more intelligent than humans.

Suppes (Stanford University): Already in certain respects, of course, computers could do things better than human beings. For example, computation. Other things they that can't do as well. So I think what will happen will be an increasing complicated comparison. Computers will continue to acquire capabilities they don't now have and so the comparison and kinds of tasks they
could do, how well they do in comparison to, show how well humans do, will continue to change.

**Wollheim (U.C. Davis):** The problem that confronts us first is how to introduce consciousness and meaning. I don't have any conviction that this can be done.

**Woodruff (U.C. Irvine):** I think that hardware, as well as wetware, as it's called, can do these things, in principle. So artificial intelligence of this sort is possible. I think to some extent it already exists. But what people have in mind, I suppose, when they ask this question is that they imagine it being like an alien coming and saying these things that we just can't understand and saying, "Oh, he's so smart, he's smarter than we could ever. . ." and so on. Do I think that sort of thing will happen? I can imagine it happening. I think that for a long time, humans would understand how it happened. That is that one would have to create some kind of quasi-evolutionary mechanisms that would allow machines to evolve, so they could go beyond humans actually programming them. Although even now, computers have certain abilities that even though we program them to do these things, what they do is so complex (because it's so large scale) there is a certain sense in which we can't understand what they're doing. I think that we can understand what artificial intelligence is, and that it's not, in principle, different in kind from what humans do. If there are differences, they have to do with the fact that we are different kinds of machines than electronic computers. We are massively parallel, and we have all these interconnections in the brain which people are now trying to understand, stuff called neural net computing. But it's not any kind of ontological difference, not different kinds of stuff or substance in mind and matter. So do I think that artificial intelligence will equal or bypass human intelligence? I'm not sure, but I certainly wouldn't be surprised. The reason I wouldn't be surprised is that we create machines that are much more powerful physically. I don't see any reason why we cannot create thinking machines that are more powerful than we are. In fact, we've already done it in certain respects. I especially don't think that human intelligence is something that is essentially
different from machine intelligence. Our brains thinking or electronics thinking are essentially the same thing.
X.
Which Five Philosophical Books Would You Bring With You To A Deserted Island?

Arntzenius (University of Southern California): I'd take J.S. Bell's *Speakable and Unspeakable in Quantum Mechanics*, because I haven't read this book and Bell is the most brilliant writer in philosophical physics. I'd take Van Klaus' book of *Quantum Mechanics* which I haven't read and should (prove) to be very interesting. Then I might take the three volume series on *Parallel Distributed Processing*, which describes neuro-network methods, solving certain problems and prime ultimatum which is discovering intelligence in a scientific series. Last I would probably take the *Encyclopedia of Philosophy*, so that I would learn more about eastern traditions.

Beckman (Harvey Mudd): Aristotle's *Ethics*, Plato's *Republic*, Nietzsche's *Zarathustra*, Wittgenstein's *On Certainty*, and Heidegger's *Being and Time*. They're all books that you can read many times and they are new, different every time you read them.

Churchland, Paul (U.C. San Diego): I don't think I will take five philosophical books. I already know the philosophical books that I might regard as important. I will take something that I haven't read or I will take something like the *Encyclopedia Britannica* or something like that, so that I will acquire new information. I don't want to reread books that I already read. I think that answer is this, I will not take any philosophical text at all. I will take the biggest book on physics, astronomy, chemistry, geology, and mathematics that I can find.

Cohon (Stanford University): Hard question. I know I won't be able to stand by my list for even a day. But here's today's list: David
Hume, *A Treatise of Human Nature*—there is so much in it to think about and puzzle over. Immanuel Kant, *Groundwork of the Metaphysics of Morals*—it is inspiring, deep, also puzzling, worth reading again and again. John Rawls, *A Theory of Justice*—an enormous amount in it, and maybe I’d finally get it all down. Plato, several dialogues—I suppose this is a cop-out, but I wouldn’t want to be limited to just one. Plato is so subtle and clever. *The Enthymphen* would be one, and maybe the *Meno* would be another.

**Copp (U.C. Davis):** How long would I be stuck there? Do you mean forever, with no rescue? If so, I would take Aristotle's *Nicomachean Ethics*, Rawl's *Theory of Justice*, Hume's *Treatise*, Grice's *Studies of the Way of Words*, and Hobbes' *Leviathan*.

**Dreyfus (U.C. Berkeley):** I would take Heidegger's *Being and Time* because I think it is so complicated that though I have taught it for 25 years and written a book on it, I still haven't gotten to the bottom of it. I suppose I would take the *Brothers Karamozov* which I think is the greatest novel ever written. The fact is that on a deserted island I wouldn't want to read philosophy. I would rather take a lot of good novels like *Gravity's Rainbow* to read over and over, and the *Iliad*, and Shakespearean plays.

**Fischer (U.C. Riverside):** I would hope that I could bring more than five, but if I had to choose I would pick: *The Republic* by Plato, *Meditations* by Rene Descartes, *History of Western Philosophy* by Bertrand Russell, *Prolegomena to Any Future Metaphysics* and the *Groundwork of Metaphysics* by Immanuel Kant.

**Friedman (U.C. Davis):** *Meditations*, Descartes; *Ethics*, Spinoza; *A Treatise on Human Nature*, Hume; *Critique of Pure Reason*, Kant; *Tao Te Ching*, Lao Tzu.

**Kalish (U.C. Los Angeles):** The first two I would choose are *A Treatise on Human Nature* and *Enquiry Into Human Understanding* by David Hume. Second, I would choose the *Autobiography of Bertrand Russell*. Third, I would choose the *Autobiography of John Stuart Mill*. The reason I would choose this is because it is a literary masterpiece.
as well as an extraordinary book. He was probably one of the only major philosophers in the entire western tradition that really took seriously what we know today as feminism. Next I would choose *Human Nature and Conduct* by John Dewey because it influenced my own development.

**Kaplan (U.C. Los Angeles):** I would take things that kept me occupied. I would take works by Bertrand Russell and things I really enjoy. Things by Carnap and probably something very mathematical and logical, some kind of reason work, and category theory, something like that. And if I was struck on a desert island I would have plenty of time to read many things I don't have the time for now.

**Lloyd (U.C. Berkeley):** I would take Rousseau--writings on human nature and politics, Saint Augustine's *Confessions*, Hegel's *Phenomenology of Spirit*, and I would take a book on ethics and society, science and society, but I can't decide which one it would be.

**Matson (U.C. Berkeley):** Plato's *Republic*; I find something new to argue with in it every time I read it. Wittgenstein's *Philosophical Investigations*; I would have time to puzzle out the hints. Nietzsche's *Will to Power*--an enormous treasury of insights waiting to be developed. Spinoza's *Ethics* for inspiration--the greatest single work of philosophy. Hobbes' controversy with Bramhall on free will. The most fun to read. Schopenhauer’s *World as Will and Idea* would console me for being out of the rat race.

**McCann (University of Southern California):** I'd take, first of all, Locke's *Essay Concerning Human Understanding*, Hume's *A Treatise on Human Nature*, and Kant's *Critique of Pure Reason*, not only because they are the books I am professionally concerned with and have a lot more to learn, but because they are the most important philosophical works of the seventeenth and eighteenth centuries. Rounding out, I would take Wittgenstein's *Philosophical Investigations* and some of Quine's writings, including *Word and Object*, as these are among the most fruitful contemporary writings.
McGray (University of San Diego): I would probably want the works of Wittgenstein, Russell, Quine, and Putnam, plus some logic texts and stuff on artificial intelligence. Right now I am more interested in certain questions and areas of philosophy rather than specific authors.

Needleman (San Francisco State): The Dialogues of Plato, Ethics of Spinoza, Tao Te Ching.

Pippin (U.C. San Diego): Plato's Republic; Descartes' Meditations; Kant's Critique of Pure Reason; Hegel's Phenomenology of Spirit; Heidegger's Being and Time.

Rosenberg (U.C. Riverside): Well, the first thing I'd choose is "Boat Building Made Simple." I would also take Hume's Human Nature, an article on logicsamatics and metamathematics, Quine's Word and Object, and Aristotle's Metaphysics.

Ross (Claremont Scripps College): First, five books is not very many when there are so many books to choose from. I would take a book on the works of Plato and Aristotle, Dostoyevsky, any book by Dewey or Kant or Spinoza because they are very religious and deal with pantheism.

Scott-Kakures (Claremont Scripps College): I don't think I'd take any philosophy. But, I wonder how I got into such a nightmarish state. I don't know. I guess you're going to force me to answer. I guess Aristotle's Ethics, that's one. Spinoza's Ethics, and Kant's Second Critique. That's all I take.

Shalinsky (U.C. San Diego): The best I can do is four: 1) The Critique of Pure Reason (because it's the most important worthwhile hard text in philosophy. 2) The Critique of Practical Reason (because it's the second most worthwhile hard text in philosophy); 3) Neurophilosophy (because I believe human behavior must be explained in neurobiological terms, and because I am mentioned in the prefatory remarks); and 4) any logic textbook (because while
away, the long desperate hours by doing logic problems would at least be somewhat distracting).

**Sircello (U.C. Irvine):** Plato's *Symposium* and Spinoza's *Ethics* because they deal with my own philosophical interest.

**Suppes (Stanford University):** I would take the collective works of Aristotle; the single volume of *Treatise on Human Nature* by David Hume; the three critiques of Kant, hopefully in volume--*Critique of Pure Reason*, and *Critique of Practical Reason*, and *Critique of Judgement*. Then I might take something of a different sort in science, perhaps a superb text in classical physics partly because I might find it very useful and a superb text in electrical engineering because I would like to set up my own generator.

**Wollheim (U.C. Davis):** Montaigne's *Essays*, Freud's *Introductory Lectures*, Wittgenstein's *Philosophical Investigations*, Plato's *Dialogues*, and Hume's *Dialogues Concerning Natural Religion*. They are 1) long; 2) interesting and amusing to read; and 3) I haven't read them all.
What I would like to ask you first is: what initially led you into being interested in philosophy? Or was it science that first interested you?

What drew me into philosophy? Well, I just got very interested as an undergraduate in the kinds of questions that were raised in a philosophical context. But I was at the same time very interested in science, especially biology.

So what led you into working in philosophy rather than in scientific research?

I don't know that there was anything really interesting [in regards to choosing philosophy over science], but I decided to go to graduate school in philosophy, and I went first to the University of Pittsburgh. I did an M.A. there, and I probably should have stayed to do the Ph.D. there, but I had sort of itchy feet, and I was interested in going abroad for a while. So I went to England, to Oxford, and I finished up there.
And so at this point, were you keeping up with the neuroscience research that was going on?

No, not particularly, I wasn't. I was really doing very traditional philosophy at that time.

What were your beliefs, what was your position at that time? Any different from now?

Well, I guess as a graduate student, especially at Oxford, I came to really be very dissatisfied with the sorts of methods that people were using to try to answer questions within philosophy. They were interested in questions about the nature of rationality, the nature of perception, about the nature of knowledge and how we could know things, and the view seemed to be that if we wanted to understand these things, then what we should do is to sort of reflect long and deep on these issues, and to analyze the concepts as people use them within ordinary language. That's the big thing that was done at that time, and it seemed to me to be likely to be non-productive--it seemed to me to be not very rewarding as a method.

Kind of a vaguely defined way of approaching these issues?

Yes, perhaps reflection is an important element, but that unless one takes into account the data that really are available about, say the nature of rationality or the nature of perception, that you're likely to be missing quite a lot. Now that opinion was not well received at Oxford. At that time, I think that people thought it was just a bit naive. I, nevertheless, wrote my thesis along those lines. Donald Davidson, I think, was very important in the sense that he had taken the view that we should see desires and beliefs and so forth as causes within the whole scheme of things, rather than rational ideals or something. And once you do that, and once you think along the lines that Quine does, then it seems quite obvious that what you want to do is look for an empirical, or scientific, account of how humans work.
And as you began to try out a more science-based approach to philosophy, how did you address the issue of what differentiates us from the things around us? How are we, as humans, different from inanimate objects? Is there anything that makes us uniquely human?

Well, obviously there is something that is different between inanimate and animate things, and we know what it is: it's DNA. Or, if you're a virus, it's RNA. And that's pretty clear. I mean, people used to think that what differentiated such things was "vital spirit," or the "life force," or "clan vital," or something of that nature.

So, if anything survives us, is that it? Our DNA, our genetic patterning?

Well, if you have children it does, but unless you have a clone of you--I mean, if you had a clone of you, then of course the same DNA would be there. But obviously if you do the standard method, which is sexual reproduction, then you're getting a genetic mix. You're children aren't you, but they're related to you in a really close way, obviously. But that's all. People have had the thought that there is something special about humans, and that after we die, there is a soul, and it goes to heaven, or to paradise, and in that and wrong will be righted, and you'll meet old friends again, and so forth. And that does not look plausible at all--it looks like fantasy. It's what people might wish to be the case, but it's not evidently something that is the case. So my feeling is that when the body dies, and when the brain dies, that's it. I mean, there isn't anything else to hang around.

So what would you say differentiates us from lower species? Is it that we simply have more complicated neural networks?

Well, our brain is a little different from other brains, but the monkey brain is different from the chimpanzee brain, too. So every species has a brain that's a little bit different from the brain that anyone else has. "Higher" and "lower" doesn't always enter into it.
Do you believe that humans have a more complicated system of levels of consciousness than other species?

Well, they might have--I don't know. We don't really know. I mean, it does seem to be the case that our language system is unique, but, on the other hand, there are some things that monkeys can do that we can't do--swing through the trees, for example. Or hang upside down from their tails, if they have tails. And so forth. And there are lots of things that a beaver can do that I can't do--I can't build a dam the way a beaver can build a dam, and not just because I don't have the big front teeth to chew things down, but because they have the knowledge and the skill of how to put a dam together. So I don't think that "higher" and "lower" is necessarily a useful way to think of it. People have this inclination to think that there is this "Great Chain of Being," and, hot-dog, we're on top of it. Or that we're fashioned in the image of God. It's silly. We are evolutionarily somewhere along the line, and what would be nice to know would be what it is about our brains that enables us to have a culture and that enables us to do such things as use language. But that's not something that's necessarily more valuable than being able to do what a gorilla does or what an orangutan does.

In light of all the scientific and technological advances that have come about in the past few hundred years, do you feel that dualism is even a tenable position in the modern world?

No, not at all. It's not. It's just barely conceivable and very implausible.

So do you believe that as our scientific knowledge increases a scientific mind-set will eventually take over, superseding mythical ways of viewing and explaining the world around us?

Well, it's hard to say what will happen--I mean, that's a sort of sociological prediction that you're asking me to make. I think it's very hard to say, because people are very inclined to hold fast to lots of old superstitious beliefs--I mean, there are still some people that are being treated for mental illness by having a priest come in
to exorcise the devil. So whether or not people will come to think, "Well, gee, we understand this, that, and the other thing about the brain, so that's why we understand that certain people are intolerant, and that's why certain other people are violent, and why certain other people have this or that kind of character,"--we may be able to do that, but it may well be that the bulk of uneducated people, or semi-educated people, go on thinking about things in their very traditional ways.

Well, how would you assess the evolutionary development of neuroscience as a field? Is it a fully established discipline, or does it have a long way to go? How fast do you think that neuroscience research is moving?

Well, again that's very hard to say. It has to be remembered that you can't study the brain very easily without really high-powered, advanced technology and equipment. And, of course, that's why it was much easier to do cosmology if you were Galileo than it was to do neuroscience. He didn't have a microscope, he didn't have ways of fixing tissue to prevent it from rotting, he didn't have ways of staining neurons, and since there was no electricity, he didn't have ways of recording from cells, and so on. So it's really only within this century, and probably really, given the new techniques, only within the last two or three decades, that progress has really been spectacular. And it's just very hard to say what will happen in the future.

In your book, Neurophilosophy, you attempt to integrate neuroscience and philosophy. Why? Are there questions that can't be answered by science alone?

Well, I think that science, in its broadest sense, means "the critical investigation and formulation of hypotheses." That's just a very, very broad description, but the "critical" part is important, because it means that science must always be prepared to revise in the light of new data. It means that data is relevant to hypotheses. It means that hypotheses should be testable, and should be testable again, and again, and again. And the trouble with many of the ideas that
people have about knowledge beyond science is that they're just goofy; they're ideas that somehow "special knowledge" will be revealed to "special people," but that those of us who don't have it can't criticize it, can't test it, can't explore it, can't investigate it. Typically, what we've seen in the past is that sort of stuff has just been chicanery, it's been charlatanism. Or it has come from people who are not necessarily trying to deceive others, but who are actually self-deceived--I mean, perhaps they are schizophrenic, for example--and they actually imagine when they hear voices that it is God talking to them. Well, it's not.

**What makes you believe that the work that's currently being done in neuroscience is not just another misled effort?**

Well, because we test and we re-test. And it's open to anybody. Any hypothesis is open to criticism, and because if I'm not sure about what somebody says, I can go and say, "Show me!," and if they say, "Well, umm, this doesn't manifest itself when people like you are around, when skeptics are around," then we say, "Yes, okay, we can scotch that." Science is open, science is critical, science reviews and revises itself and that's what makes science science. That's what the scientific method is really all about, and that's what differentiates it from superstition, where people believe things regardless of the data. And that's what differentiates it from religion, where people believe regardless of what the evidence is, and regardless of what the criticisms might be.

**And where is the place of philosophy in terms of science?**

Well, I think that philosophy is continuous with science, and I think that it always has been. I think that it was certainly true of Aristotle, when he was reflecting on the nature of motion and substance, and I see it that way now. What happens, of course, in the history of the subject, is that as theories develop, and as hypotheses become confirmed, they sort of "hive off" the mother body, they "hive off" of philosophy, and they become a specialized discipline, like chemistry, or physics, or cosmology, or what-have-you. And, until very recently, philosophy of mind, that is issues concerning the
nature of the mind, were still very much part of philosophy, because techniques in both psychology and neuropsychology got to the point where we knew enough to have specialized disciplines into the nature of the mind. But now I think that's happening. So I see philosophy as playing a sort of synoptic role here, as taking a kind of broad view of trying to synthesize ideas, sometimes across disciplines, and to generate very general hypotheses about what's going on, but I don't see it as in some sense independent of science, or special from science, or that it has a special access to a "special" kind of knowledge, or anything of that sort. But I realize that most philosophers would disagree with me.

You've indicated a belief that advances in neuroscientific research and technology will lead to changes in ethical considerations in terms of philosophy.

Well, it's hard to know. I think that there are likely to be ethical implications of advancing knowledge in neuroscience, just as there are ethical implications of advancing knowledge in anything. We always have to decide what to do as we understand things a little deeper, and, in this case, I think that it may be that we will understand certain aspects of ourselves, and to what degree we have freedom of the will, or we have free choice, or what effects on character early kinds of childhood experiences have, why some people are more tolerant than others, how to achieve tolerance, how to achieve understanding, and so forth.

What kind of ethics do you think that materialists can legitimately have, according to what they know to be true?

I think in some ways we are very Aristotelian, and in some ways use Utilitarian principles. I think that we try to reason and understand to the best that we can what it is that a good person or a right person would do in such and such a situation, and what would be fair, and we try to reflect on what fairness consists in, and try not to be dogmatic, try to be tolerant, try to be as fair-minded as possible. I think that really, in some ways, tolerance is something which is critically important to the survival of the species, that it's something
that's very often neglected when people teach their children morals-they think it's important to be intolerant of people who are different, intolerant of people who are pro-choice, intolerant of people who want to live a different style of life, intolerant of certain kinds of sexual practices, and so on. I think that that's very worrisome, and I don't think that the human race can tolerate that. The human race cannot tolerate intolerance, in other words. So, perhaps if we knew more about how the brain works, then we might be able to achieve a greater degree of tolerance and understanding of one another, and I would think that that would be for the benefit of mankind.

In addressing the area of morals, tolerance, and intolerance, we come to the issue of religion. Some say that religions have, in the search for truth, actually put up barriers to finding the truth. Do you think this is true? Do you think that religious or spiritual ways of approaching the search for truth can be valid, can provide any useful or helpful information?

It depends on what you're talking about. I don't think that religion is of the slightest help in the search for empirical truth, or for truth about the nature of things, and, indeed, the history of religion has shown that by and large religions are anti-intellectual, they're anti-scientific--they actually prevent progress rather than aid it. So, I don't think they're of the least help so far as understanding the nature of ourselves and understanding the nature of the universe is concerned. But I think that there might be wise people who happen to be in religions, or who happen not to be in religions, who can be helpful to us about how to live a life, as I think Aristotle was for example.

Have there been any religions, such as Buddhism, for example, which steers away from dogmatism that have interested you or intrigued you?

Well, not me personally, because that isn't something that I feel I need, but when I did begin to learn something about Buddhism in the context of having this tutorial with the Dalai Lama, I think I did
begin to appreciate that if people have to have a religion, then probably Buddhism is amongst the better ones to have, because of its emphasis on tolerance, on self-reliance, on reasoning things out yourself--keeping dogma to an absolute minimum--because there is an attempt to achieve a kind of wisdom, through experience and through living and through talking to people who are supposed to know more than you, and who are supposed to be wise in the way to live life. And I think that they are very helpful to many people, in the question not of the nature of truth, but in the questions about how to live a life: should I make this kind of a choice or that kind of a choice? Should I try to be this sort of a person or that sort of a person? And there, I think that they are helpful. But I think that within any religion, there are probably people who are somewhat helpful. But there are as many people who are not--there are lots of priests and lots of ministers who are positively not helpful about how to live a life, because they themselves are misdirected in one way or another. Which is no surprise--I mean, why would they be expected to know a lot about how to live a life just because they're a priest?

So just by the principle of random chance, you're going to find some religious people who are wise?

Yes. And some people really are--they grew up perhaps in a loving atmosphere, or whatever. But I think that some people are really good at it, and some of them go into clinical psychology, some of them end up teaching mathematics at school--it depends.

I know that you have worked with the Dalai Lama. I am wondering if, in spending time with him, you got any idea of what it is about him that makes people think he is spiritually enlightened. What are people responding to?

Well, I don't think he is enlightened, particularly, because I don't think that anybody is--except that I think that he's learned a lot in his life. I think he's acquired quite a lot of knowledge about the way the world is. I think that what is nice about him, one reason why one responds to him is that first of all he is very, very tolerant. And
he listens. If he wants to know something, he'll ask a question, and then he'll listen to the answer, and he may change his mind depending on what you said. I think that for someone in his position—well, one doesn't always see that. If I may draw a contrast with the Pope, I think that there we see somebody who probably is less open than the Dalai Lama. And the Dalai Lama is also very gentle, very unpretentious, and one senses that this is what he thinks is important in life. When he says, for example, "I'm just a simple monk," the first time you hear it, you think, "Oh, well, that's like the Pope saying, "I'm just a simple priest," but as it turns out, he has a kind of unpretentiousness and a kind of directness, and a kind of honesty that does make him special. But he's not the only person I've met who's like that— I mean, I have met scientists who were like that— but it makes them very lovable people. And certainly I thought that he [the Dalai Lama] was very kind and very gentle—a very good person.

Getting back to your own work—neuroscience and the nature of existence—do you think that science, even if it is able to map out mental processes in terms of brain physiology, can even begin to address the ultimate origin of those processes? Where, in your opinion, is the cause or origin of mental processes?

I do think that neuroscience will be able to explain—well, it depends on what mental processes you're talking about—but I think that if you're talking about, for example, the nature of memory, or perception or reasoning, or use of language, I have no doubt that we will understand those processes in terms of the way the circuits in the brain function. I mean, there isn't anything else to explain them in terms of, so it better be that! There's no spooky stuff lying around, such that when I look in a certain direction I see an orange lying around, such that when I look in a certain direction I see an orange lying around, such that when I look in a certain direction I see an orange— it's the way the rods and cones work, and the neurons work, and the way the circuits are put together that allows me to see that orange. Now there's still a lot that we don't understand about it, but I expect that we will understand it. Now, of course, it might turn out for some weird reason that we won't, but I can't see that we won't.
So I think we just have to keep working at it, and I think we'll get those answers. And I think it'll be very exciting, because we'll be able to understand ourselves—why we have the thoughts and feelings we have, why we're conscious, why we're aware. And we'll know that it's thus-and-such circuit doing thus-and-such thing. Now some people find that rather threatening, and they think, "I want to be a mystery. I don't want to be explained. I don't want to be just "stuff," but of course what one wants—well, first of all, you have to ask why one would want that—why would it be better to be a mystery to yourself than to understand yourself? And then if it turns out that you just are "stuff," that your brain just is meat, then wanting it to be different isn't going to change it. Why not accept it for the glorious piece of meat that it is?

And what are your hopes in neuroscience—what kind of changes or improvements do you think we might be able to make by understanding more about learning processes, memory, etc.?

It's hard to say, but I would hope that we might be able to understand the basis of Alzheimer's, so that that could be prevented—perhaps not cured—but at least prevented. And there are many other diseases as well. I would hope that we would understand more about the nature of schizophrenia, of manic depression, of the classical psychiatric syndromes. And to better understand addiction; I think that tremendous progress has been made at the cellular level in understanding addiction, and so much so that one can even envisage a kind of vaccination against alcoholism, for example. Those sorts of things would make a tremendous difference to the quality of life that we have.

I sense, then, a great deal of hopefulness on your part.

Yes, I think so. I think it's a tremendously exciting and tremendously hopeful thing. But first of all, as I said, because of all the many, many diseases—MS is another one where I think tremendous progress has been made, and I think we may be quite close to understanding the basis of MS—then I think we may be able
to prevent it. And so on and so on, for all the zillions of diseases that there are. I mean, it might be a lot better if people could just age gracefully, rather than start losing their neurons and becoming demented by the time they're sixty-five. You know, I would much rather be sort of bright and chipper and then all of a sudden dead than to go downhill in the way that many people who have Alzheimer's do. It's a terrible, terrible thing to see.

And where is your own work headed? What are you currently focusing on at this point?

I'm working on a book on computational neuroscience, which has to do with the nature of computational hypotheses at the level of the circuit. We know quite a bit about what's happening at the level of the single cell, but we want to know how single cells interact with one another in order to produce an effect such as remembering something, or such as recognizing something as an orange. And so the book is directed to some technical, as well as some very general, questions at that level.

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**NEURAL REFLECTIONS**  
David Christopher Lane

Yet, because my awareness seems distinct from my bodily apparatus, I somehow believe that I am running the show. However, the reality is that I can do very little. If we are more than the physical substratum of our cerebral cortex, why is it that everything we do is modulated by our brain? I go to sleep because of chemical-electrical signals triggered within my skull; I wake up for the same reason. Yet, because my awareness seems distinct from my bodily apparatus, I somehow believe that I am running the show. However, the reality is that I can do very little. "I" don't digest my food. "I" don't beat my heart. "I" don't develop antibodies to ward off diseases. "I" don't even know if I originate thoughts or only direct them. The "I" does very little indeed, except believe itself to be more than what it actually is— an epiphenomenon of networking neurons. So far so good, but there's one glitch here:
consciousness talks about neurons, neurons don't talk about consciousness.

Everything we have known in the world must come through the medium of consciousness; even the idea of neuroscience, even the idea of philosophy, even the idea of materialism, must arise through the medium of self-reflective awareness. It is, in fact, that medium of consciousness --non reducible in terms of actual lived-through experience--which contextualizes everything we can ever know about the universe.

What comes first: Neurons or Awareness? If you say the former, how do you know unless you are already aware? If you say the latter, why is it that when someone clubs you over the head with a bat your awareness of this world ceases? The fact remains that whatever is the source of our "I" awareness, it does not alter our existential dilemmas. We are still stuck to living in a world that seems to transcend its neural origins. The following seems to summarize the mind-brain debate, at least from a materialist perspective:

"Indeed, we know we are more than just neurons firing; or at least we think we are while the neurons are firing."

**RECOMMENDED READINGS**


