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In — We Trust: Science, Religion, and Authority

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Background

When I first delivered the lecture¹ that led to this essay, I was up against some pretty stiff competition: the opening night of *The Matrix: Reloaded*, which not only had a slightly bigger special effects budget than I had, but was all about science and religion. Science, as both diabolical and redemptive technology, science as a seemingly real yet utterly virtual world of computer code in which people are unwittingly trapped like the prisoners in Plato's cave, science as the empowering tool of Morpheus and his band of high-tech freedom fighters.

Yet religion, too. Listen to the strong parallels one scholar draws between the original *Matrix* and the central story of Christianity:

Neo, like Jesus, is the long-expected Messiah who is ultimately killed only to resurrect as a fully "divine" creature. The final scene even evokes the bodily ascent of Jesus to heaven. Also, Morpheus seems every bit the equivalent of John the Baptist, even to the point of baptizing Neo in a graphic scene in the liquid bowels of the human battery chambers. Trinity might be compared to Mary Magdalene and Cypher clearly parallels Judas.²

He also notes the very important Buddhist theme in *The Matrix*, stressing "our ignorance of existential reality" as the fundamental problem both in Buddhism and in the world depicted in the movie.

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So we have science on both sides, but most significantly, science is the tool of the oppressor. And religion clearly is the source of insight and strength among Neo and his disciples. Science up against religion. And who wins? In the battle between diabolical science and religious insight, religion prevails. But the victory is short-lived: after all, the original *Matrix* grossed a measly \$165 million, thus the imperative to produce sequels such as that competing with my lecture.

Science and religion: powerful stuff in our society, as revealed in *The Matrix* and countless other instances of popular culture. Here, I would like to examine one thread that winds its way through many of these discussions. This is the thread of authority in science and religion. The approach I will take can be clarified by means of a well-known Buddhist proverb, as represented in the early-nineteenth-century artwork by a Zen priest shown in Figure 5.1.

Here the childlike, rotund, enlightened figure, Hotei, points heavenward (note there is no actual moon) and asks: “Mr. Moon, how old are you: seventeen or three?” Doctrine and teachings, according to this proverb, are like a finger pointing to the moon, which represents ultimate reality, or more properly our experience of this ultimate reality. There is wisdom in this proverb, but a cursory reading would overlook how the moon and the finger are intertwined. Science and religion are often understood as mere fingers pointing transparently to reality and God, or the sacred; hence, a good deal of what you read about science and religion constitutes an attempt to harmonize reality and God, to bring these multiple moons together.

Our series has been based on an expanded premise: we are interested in the finger as well as the moon, the human experience of science and religion as well as the realities toward which science and religion point. We do this not because we don’t believe in the moon, but because we wish to avoid the intellectual hypocrisy of making certain scientific or religious claims about the moon without acknowledging that this very act involves pointing a finger.

I want to help clarify science and religion by taking the next step. I am interested in the fingers pointing to the finger that points to the moon. When I was working for the Peace Corps in southern Africa in the early 1980s, I met a man who was once a teacher and now wandered the streets of the small border town nearby with a pencil and small notebook in hand. And each time he passed an object that caught his eye he would stop and take notes about it. This man’s notebook was filled with glimpses of the moon. But no fingers pointed to him; most people thought he was crazy. There will never be a lecture series devoted to this man. Perhaps the difference is that science and religion offer such rich insights in comparison to the scribblings of a crazy man. But, at bottom, the ultimate reason is that many fingers point—rightly or wrongly—to science and/or religion, and no fingers ever pointed to him.

So if we want to make sense of science and religion, and the realities toward which science and religion point, we must also bring ourselves into the

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FIGURE 5.I.

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picture. It is our fingers, pointing toward or away from science and/or religion, that complete the picture sketched by the Zen priest. This is why authority, or more precisely trust in authority, matters fundamentally when considering science and religion.

If there is one overarching concern I have that motivates this talk, it's not primarily *what* we believe about the moon, nor even *whom* we trust as authorities, but rather *how* we trust these authorities, and what power these authorities wield over us as a result. I want to treat science, religion, and other major institutions of epistemic and moral authority with respect, but take them off their pedestal, in what I will call a blending of commitment and critique. I want to rebuild science and religion from the bottom up—that is, from the trust we place in them that gives them the right to command our attention. Trust places us in a position of openness to profound insights, but it also places us in a position of vulnerability. Blending commitment and critique recognizes that trust in authority is a good and necessary thing, but that these authorities are, after all, thoroughly human and finite entities. They are, in the truest sense of the old Buddhist proverb, the finger and not the moon, and we must never forget that both are implicated in the act of pointing.

Trust in Authority among Americans

The results of a National Science Foundation–sponsored research project I administered are relevant here.³ Among other topics, the project concerned the trust Americans place in four domains of authority on matters of true and false, right and wrong. We know that there are different levels of public trust in institutions of science and religion. But science and religion do not stand alone as domains of epistemic and moral authority. Catherine Albanese has written extensively on what she calls “nature religion” in America, a phenomenon she traces from our contemporary environmental age back to the times of early European settlement.⁴ As the famous American architect Frank Lloyd Wright once said, “I believe in God, only I spell it Nature.” The case of nature religion suggests that many people place nature alongside science and religion as an important authority—think of, for instance, how much we tend to trust products that are natural, the ways many people regard nature as a source of spiritual insight, or the notion that a society based on the principles of nature would be in much better condition than it is now.⁵ These notions build upon long-standing historical traditions: the tradition of natural law—descending at least from Saint Thomas Aquinas of the thirteenth century and arguably reaching back to Aristotle—in which standards of morality are related to the nature of the world and of humans, and the rather different tradition of naturalism, which regards nature as a substitute for God in explaining physical and human reality. Nature is thus an interestingly complex authority, spanning theism,

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spirituality, and antisupernaturalism alike. To this trilogy I add government or state as a fourth authority, based in part on the work of scholars of religion such as Robert Bellah⁶ on a phenomenon they call civil religion, a veneration of state and national identity that implies a trust in government not simply as a political power, but also for larger epistemic and moral matters.

I, then, was interested in exploring the trust Americans place in these four authorities: science, religion, nature, and state.⁷ There are important differences between, and complexities within, these authorities that must be acknowledged at the outset. For example, science, religion, and the state can readily be identified with human institutions, but nature is an elusive and abstract category, perhaps more of a subliminal authority than the others. Additionally, these authorities can mean different things to different people. Science, for instance, can mean technology to one person and a certain form of rationality to another, while religion could mean God or it could imply the thoroughly human institutions of religion that many Americans escape by calling themselves “spiritual, not religious.”⁸ Because of these and other complexities, I utilized a dual methodological strategy, involving a quantitative survey of over one thousand Americans administered between April and June, 2002,⁹ and a follow-up set of in-depth qualitative interviews of roughly one hundred selected survey respondents over the summer of 2002.

Let’s remember a few features of 2002 related to trust in authority. Perhaps the most important item was the continued U.S. response to the terror attacks of September 11, 2001: if we had delivered the survey and interviews just one year prior, the political climate would have been altogether different. Recall that, for at least some Americans, the election of George W. Bush to the presidency in late 2000 was mired in questionable legal practices stretching from Florida to the Supreme Court. September 11 gave the United States an enemy and thus a new authority to the president and the federal government. By spring 2002, the enemy was increasingly portrayed as Iraq, specifically Saddam Hussein, preparations were being finalized for the new Department of Homeland Security, terror alerts continued throughout the country, and in general, the issue of trust or distrust in government was perhaps never more timely, as Americans struggled to make sense of these sweeping changes affecting their country and their lives.

The status of other authorities was in the news as well: religion received both increased zeal and scrutiny in the light of September 11, and the connection between religion and government was highlighted in June 2002 as the U.S. 9th Circuit Court of Appeals ruled that the words “under God” in the Pledge of Allegiance amount to a government endorsement of religion, prompting leaders on all sides of the political fence to rush to decry the ruling, though—if political cartoons are any indication of the breadth of public opinion—Americans were more divided, expressing both trust and distrust in God, government, conservatives, and liberals in the context of this controversy.

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Religion received attention for another reason in the spring of 2002: the sex scandals of Catholic priests and their apparent cover-up by the Roman Catholic Church. In comparison to the state and religion, science and nature received relatively less attention, though there was some concern over genetics and cloning, as well as the marked shift of the Bush administration on environmental policy. But trust and distrust were expressed in other realms as well, from baseball in the summer of 2002 to the revelations throughout the year of major corporate scandals and their possible connections with the Bush administration.



With all this bad news, you would think that Americans would have expressed high levels of distrust in authority. This refusal to accept authority at face value was an apparent feature of the country that so enamored one famous nineteenth-century European student of American democracy, the Frenchman Alexis de Tocqueville, that he envisioned a new model of authority emanating from the American experience. To de Tocqueville, the bonds of traditional authority were weak even in the American family:

In America the family, in the Roman and aristocratic signification of the word, does not exist. . . [As] soon as the young American approaches manhood, the ties of filial obedience are relaxed day by day; master of his thoughts, he is soon master of his conduct. . . . When the condition of society becomes democratic and men adopt as their general principle that it is good and lawful to judge of all things for oneself, using former points of belief not as a rule of faith, but simply as a means of information, the power which the opinions of a father exercise over those of his sons diminishes.¹⁰

Yet trust in authority in contemporary America is generally stronger than in European societies. Results from a 1998 survey conducted under the auspices of the International Social Survey Programme (ISSP) suggest that Americans display a much higher trust in religion than do people from European countries, and a somewhat higher trust in government.¹¹ An earlier ISSP survey from 1993 asked respondents to indicate their trust in science, and it also had an interesting question concerning sacredness in nature which we can use as a surrogate for some form of deep trust in nature. The results show that Americans tend to trust science more than people from other countries included in the survey, but do not trust nature as highly. Thus, on a relative scale, Americans are near the top in trust in religion, close to the top in trust in science, above average in trust in government, and below average in trust in nature.

Now let's examine the results of our survey of adult Americans. We gauged respondents' levels of concern for twelve categories of policy issues, and for those where a high level of concern was expressed, we asked respondents to rate science, religion, nature, and state as authoritative sources of information

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or guidance with respect to that policy issue. Then we calculated the average trust expressed for each of these authorities. We also included two questions for each of these four authorities that probed the possibility of what one could call “hypertrust,” an extreme or exclusive trust in authority. Finally, toward the end of the survey, we asked respondents to give a summary rating of their overall trust in these authorities as sources of information or guidance for their lives.

I can give you some general statistics. In terms of overall trust in these four authorities on a scale of 0 to 10, with 5 as a midpoint, the average trust expressed by Americans was relatively comparable, ranging from 5.5 for government to 6.7 for science, with religion and nature in between. There was much more variability in the responses of Americans on religion than, for instance, science: religion is both trusted strongly and distrusted relatively strongly.

For the questions on hypertrust there was more variability between authorities. As examples, the mean response to the statement “Science will eventually answer all important questions about humans, the world, and the universe” was only 3.7 on a scale of 0 to 10, whereas “The Bible is the literal word of God” had an average of 5.8. “There would be more peace and harmony in society if we simply followed nature” had an average of 5.4, and—though one could argue that public opinion from 2002 contradicts this—the statement “Our American government can be trusted to tell the truth” had an average of only 3.5. Each of these statements elicited considerable variability among Americans, though few people showed strong hypertrust in science and in state.

What is more interesting than overall statistics, however, are the patterns in trust placed by individuals in these four authorities. Examining the overall trust responses, for instance, one sees a strong correlation between trust in religion and trust in state, and another strong correlation between trust in science and trust in nature. What this means is that people who tended to trust, or distrust, religion felt likewise about the government, and the same with nature and science. By applying a procedure called factor analysis to all sixteen trust variables, these patterns come into sharper focus, as two primary underlying factors or composite models of trust are revealed. The first involved a hypertrust (or distrust) in religion, including strong adherence to traditional theological tenets, and trust (or distrust) in state; this factor alone explains nearly a quarter of all the differences (i.e., variance) in the entire set of sixteen variables. A second model is close behind: the model of linked trust in science and nature. This model, too, has both adherents and detractors. Note that, following typical factor analysis procedure, these two models are assumed to be independent of each other: it’s not that Americans choose either God and government *or* science and nature—they could choose both or neither.

Interestingly, there was relatively little association of these models with standard demographics; those who were young and old, male and female, rich

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and poor, educated and uneducated can be found supporting or opposing both models. However, in one strong difference between the two models, people who trust religion and state tend to identify as politically and morally conservative, whereas the opposite is true of those who trust in science and nature.

We also interviewed selected respondents in depth, and we asked those who scored in the top and bottom extremes of each of these models of trust in authority to say more about it. Among those who trust strongly in God and government, you do find some relatively pure cases of trust, as in respondent number 584, a 61-year-old, well-educated woman from Alabama:

I was raised to trust in God and I do, and again I think that our government is better than anywhere else that we could be and I would like to think that people are trying to do right.

But just as often, those who scored the highest were reluctant to speak as if they trusted everything they heard, especially from the government; for instance, respondent 608, a 19-year-old Latina student from California, says:

I believe in certain religious things . . . I don't know I believe in the government but I believe that they're not doing as much as they could be doing. So that's why I don't believe as highly in government as I do in religion because [with] religion I can have my own beliefs.

Those on the other end of the spectrum, however, were quite willing to characterize themselves as not trusting in religion and state, and some offered their own theories as to the linkage; for instance, respondent 466, a 56-year-old female from Michigan, says:

I think it's accurate in so far as government and religion are hierarchies. . . . Religion is a hierarchy. An ecclesiastical hierarchy. Government is a bureaucracy. Those types of entities, with my relationship and my recent history with them—I'm talking about the last half a century—are not credible. They are not truth-tellers. They are at times, but they are not purveyors of truth as much as they are formers of opinion and modifiers of behavior.

In the case of the second model of trust in authority, those who scored the highest were quite willing to admit their trust in science and nature. Respondent 561, for instance, a 60-year-old man from Washington State, says:

Well, I mean science brings us the truth, as best as they can, and nature is the truth, and we need both to have a balanced way. To survive.

On the other end, those who scored the lowest were similarly willing to express either strong distrust or irrelevance to their lives; for instance, respondent 28, a wealthy 44-year-old from Pennsylvania, says:

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Science doesn't necessarily have all the answers, although they may think so. You look at some of the scientists, and they think we all evolved from some exploding dinosaur, but I don't think so. . . . I trust nature in the fact that nature's here and it's been provided by God, but I don't trust that for my source of being.

These responses raise the very important question: why the strong alliance between religion and state, and between nature and science? The interviews suggest lots of possible combinations, but the overall pattern is clear. I will venture two answers at this point. The first is probably obvious to you: this is, in part, how these authorities are packaged in contemporary American culture, especially the connection between God and government. We need look no further than the American president, who commentators have frequently noted resorts to religious language and images. His 2003 State of the Union message, for instance, ended with an explicit linkage of God and American destiny:



The liberty we prize is not America's gift to the world, it is God's gift to humanity. We Americans have faith in ourselves, but not in ourselves alone. We do not know . . . all the ways of Providence, yet we can trust in them, placing our confidence in the loving God behind all of life, and all of history. May He guide us now. And may God continue to bless the United States of America.

A second explanation is more speculative, but worth considering. There is an interesting structural similarity between these two models: each has an ultimate authority—religion, or ultimately God, on the one hand, and nature on the other—as well as an authoritative human institution—the state, or science—that represents and communicates the truths of their respective ultimate authority in the human realm. Now, of course, in the case of religion and government, this association is tantamount to theocracy, a violation of the U.S. constitutional separation of church and state. Yet support for a linkage of church and state is stronger in the United States than in many other countries, as revealed by 1998 ISSP results. The second model's linkage, between science and nature, is well represented in many people's views of ecology: here again—perhaps less problematically than with the theocracy model—the human institution of science is understood as an authoritative conduit for the ultimate authority of nature, following Enlightenment naturalism.

Trust in Authority: A Deeper Examination

Let's now think more deeply about trust in authority. I'll begin by making a few important points, points which are perhaps self-evident yet are often forgotten.



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(1) Trust in science and religion is prior to belief. Many studies of the popular uptake of science and/or religion focus on beliefs, such as theism, evolutionism, or materialism, as indicative of behavior. But ours is a highly plural world of meaning, in which diverse truths are proclaimed; to return to our former analogy, many fingers are pointing at a particular moon. Trust is the filter that commits us to certain of these beliefs and avoids others, based on the messenger as well as the message. We choose which authoritative finger to point our own fingers at, and based on this commitment, we open ourselves to understanding the moon as revealed by this or that authoritative finger. That's why I'm more concerned about trust than belief: trust is prior to belief.

(2) Trust in science and religion may be necessary, yet entails vulnerability. As in personal relationships, trust involves commitment without full understanding or control, which we do not have over this world, not even our own lives. We cannot simply point our own finger to the moon in an act of defiant isolation; to some degree we must depend on those fingers we consider authoritative. But this commitment places us in a vulnerable position: we could be manipulated, or manipulate ourselves. Many people have blamed religion for preying upon vulnerable souls, but science, or more specifically a certain form of rationality associated with science, has come under scrutiny as well.

(3) Ultimately, what I'd like to argue is that, given their powerful roles as authorities, science and religion must encourage more mature forms of trust that blend commitment and critique. For better and for worse, many of us trust science and/or religion to guide our lives. We must choose wisely. But these authoritative fingers pointing to the moon have a duty to encourage a trust formed with both eyes open, a trust that blends the commitment of pointing our finger this way or that with the critical insight that we are, after all, only pointing our fingers at other fingers, and not at the moon itself.

Let's see how we could move toward this final point, by way of an expanded discussion of trust in authority.

What do I mean by "trust"? I distinguish trust from two related terms, "faith" and "confidence." Faith implies for many people a sort of blind conveyance of trust, something unreasonable, irrational. It is a term many people reserve for religion. Yet physical chemist-turned-philosopher Michael Polanyi argued that faith is central to the scientist's commitment to the beliefs and norms of the scientific community,¹² and philosopher Mary Midgley has written that science is another form of religion, offering an alternative path to salvation for those who will put their faith in the scientific world-picture.¹³ Indeed, Midgley defines faith much as I define trust, saying:

Faith is not primarily a belief in particular facts. . . . The faith we live by is something that you must have before you can ask whether anything is true or not. It is basic trust. It is acceptance of a map, a perspective, a set of standards and assumptions, an enclosing vision

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within which facts are placed. It is a way of organizing the vast jumble of data. In our age, when that jumble is getting more and more confusing, the need for such principles of organization is not going away. It is increasing.¹⁴

I will retain the term “trust” versus “faith” to avoid confusion over certain readings of faith, and also to emphasize the relational character of trust. If faith is an act on the part of the faithful, trust is both a premise for, and a desired outcome of, a relationship. This is where trust differs from confidence, a term often used in social surveys. What is your level of confidence in the economy? the media? and so on. But confidence is an instrumental, not a relational, property: one decides whether or not to invest in stocks based on confidence, but one decides whether or not to invest one’s life in a relationship, or a meaningful network of relationships such as a religious organization, based on trust.¹⁵

Most of the literature on trust concerns its significance in interpersonal and professional relationships, regarding it anywhere from a mere social and economic lubricant,¹⁶ to an intensely personal but inescapably political set of what Anthony Giddens calls “facework” commitments,¹⁷ to the fundamental existential challenge in the first year of human life.¹⁸ My interest lies in extending the capacity for trust learned from interpersonal relations to more distant authorities: this is similar to what Giddens calls “faceless” commitments and Niklas Luhmann calls “system trust,” except trust in authority often takes forms that are quite personal and concrete rather than impersonal and abstract. When people say they trust in God, they do not generally imply some broad Platonic principle; even when people say their trust lies in scientific rationality and not God, the level of commitment and passion implied in this form of trust is often as deeply personal as that of the theist.

An important question concerns the “why” of trust in authority. As noted in the Mary Midgley quote earlier, it would be naïve to think that the necessity for trust in authority has diminished in modern times: perhaps our allegiances have shifted, and the decline in religious authority is evident especially in Europe, but trust appears to be here to stay. Luhmann argues that the very nature of modernity is its “unmanageable complexity,” necessitating trust as the basis for the inevitable risk-taking behavior in which we all must engage.¹⁹

But trust in authority is not simply an individual act on our parts, as authority is both produced and consumed: institutions of authority expend considerable effort in achieving and maintaining legitimacy, that is, in securing our trust. To explore this two-way street of producing and consuming authority, the term “authority” requires further clarification. As with trust, authority is a relational concept: it does not exist unless it is recognized. Hannah Arendt distinguishes authority from relationships based on coercion on the one hand, and mere persuasion on the other; authority involves an agreed-upon hierar-

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chy.²⁰ The *Oxford English Dictionary* distinguishes between two types of authority: involuntary authority, such as political and legal systems that demand our obedience whether or not we agree with them, and voluntary authority, that which concerns us here.²¹

My interest lies in authority as involving two forms of content: epistemic authority over what is true and false in how the world is, and moral authority over what is right and wrong in how the world ought to be. Authority is usually discussed in its political context, but assertions concerning epistemic and moral matters are arguably found in all contexts in which authority is exercised. It is convenient to think of science as a purely epistemic authority and religion as a purely moral authority; then they would be legitimate in their respective realms, and there is no possibility of conflict.

Such was the argument of the late Harvard paleontologist Stephen Jay Gould, who suggested that science and religion constitute NOMA or “non-overlapping magisteria.”²² Gould’s NOMA argument, though popular with many people and certainly conciliatory toward science and religion, nonetheless presents highly truncated notions of both scientific and religious authority. It is true that scientific authority is often grounded by reference to expert opinions on the facts, and religious authority is often claimed primarily over matters of value, but these schemes represent more of a political settlement worked out over the last few centuries than a reflection of some neat divide between facts and values, a commonly assumed schema with surprisingly little justification.²³

This leads to an interesting challenge, what I call the “competing gods” problem: there are many claims to authority out there, which cannot be entirely ignored. As we discovered with religion and state, and with nature and science, a common answer to the competing gods problem is to forge alliances, to link up one’s authority with another authority so as to declare an alignment of the constellations. This approach is exceedingly effective, perhaps because it addresses the discomfort most people experience with cognitive dissonance between two competing authoritative claims.²⁴ Thus the groundswell of interest in harmonizing science and religion, which seems primarily driven by a need to bring them into alliance.

Consider the imagined relations between science, religion, and state in the tragedy that took place over the skies of the United States, stretching from California to Texas, on the morning of February 1, 2003.²⁵ Here science and science-based technology provided both the underlying rationale and the source of protection for the one Israeli and six American crew members on board the U.S. space shuttle *Columbia* as they hurtled through space. Yet the comforting authority many people place on scientific expertise was shattered as the space shuttle itself, and its fragile occupants, were lost following heat buildup upon reentry. Many of the editorial cartoons of the time focused on—and generally justified—the issue at hand, namely scientific exploration. But

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many, many more resorted to highly anthropomorphic images of religion, as the God of what were apparently six Christians and one Jew served as the ultimate Protector. Others linked the tragedy directly to the American political identity.

These images contrasted sharply with the very technical reports emanating from NASA. The strategies available to NASA officials as they struggled to regain trust in their authority were limited: they could not build explicit alliances with state or with religion to share the blame. But NASA officials were aided nonetheless by a political and cultural climate in which God and government were closely allied with the space shuttle mission. Yes, science stumbled, but the very important scientific, economic, and moral questions that concern manned space research never found their way onto the editorial pages because of the distributed political and cultural effort to ensure that the broader authoritative network, this overarching alliance of religion, science, and state, was maintained.

There are certain philosophical meta-arguments common to science and religion in producing what appears to be convincingly legitimate authority. I'd like to mention one: objectivity, a claim to authoritative certainty on a reality separate from those claims, a moon far removed from the finger. Science is famous for this, but objectivity is not an inevitable feature of scientific institutions. Philosopher and historian Stephen Toulmin has argued that European modernity involved not one but two traditions: an earlier tradition of Renaissance humanism grounded in a tolerant blend of religion, science, and the arts, exemplified in the work of Erasmus, Montaigne, and Shakespeare; and what he calls the seventeenth-century Counter-Renaissance, when economic crisis and religious struggle resulted in an emphasis on the rational pursuit of abstract objectivity by key figures such as Descartes and Newton.²⁶ Scientific objectivity can, in Toulmin's view, be traced directly back to this seventeenth-century "struggle for certainty"; it is now, as it was then, epistemologically unnecessary to science, but politically advantageous in grounding claims of authority in uncertain times.

There are perhaps deeper reasons, and contradictions, underlying the premise of objectivity as well. Science studies scholar Evelyn Fox Keller invokes feminist and psychoanalytical theory in her attempt to fathom objectivity:

The objectivist illusion reflects back a self as autonomous and objectified: an image of individuals unto themselves, severed from the outside world of other objects (animate as well as inanimate) and simultaneously from their own subjectivity.²⁷

Objectivity is as much a feature of the transcendent God of certain Western religious traditions as the transcendent reality of Descartes. Yet religion, in claiming authority not just on matters about God but also on matters of the subject, the religious believer, necessarily adopts a divided stance on ob-

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jectivity. Religion becomes, in essence, both “true” along objectivist lines and “true for me” in the subjectivist eyes of the believer, both a “fact” and a “value.”

The problem with the whole scheme, as suggested in several lectures in this series, is that objects and subjects are not separable—in fact, as Harold Oliver argues in this volume, one can understand objects and subjects as derivative of relations. It is not that objects and subjects happen to relate, but that the very sense of object and subject assumes a prior relation between them. More concretely, there are profound ethical problems with the fact-value distinction implied in the object/subject dichotomy, where facts cling to objects and values cling to subjects: ethics becomes marginalized in a science devoid of values, yet amounts to moralizing among certain religious groups who claim to hold the truth on values.²⁸

If you don’t believe that claims to objectivity are central to scientific or religious authority, try challenging this philosophical premise among adherents and see what happens—I suggest you keep a safe distance when you do this. Thankfully, there are many devoted scientists and religious followers who have no problem admitting that objectivity is not the most accurate way to understand the truths they pursue or believe so passionately. But there are many who respond with mixed scorn and pity for the ignorance of those who cannot see the light: the story is repeated among scientists, for instance, of how physicist Alan Sokal proved the intellectual vacuity of would-be assailants of objectivity once and for all by publishing a parody of the movement in one of their very own journals, *Social Text*,²⁹ or, on the side of religion, how would-be doubters of the existence of a transcendent God have long been proven wrong.

So much for the production of authority; let us now consider its consumption, because that is where each of us comes in. One problem is what is known as authoritarianism, a mode of hypertrust in authority. Authoritarian personality theory was first suggested in the work of Erich Fromm.³⁰ To Fromm, freedom is the essential right and responsibility of being human, but with the evolution of individualism came not more freedom but less as people rushed away from its responsibilities and challenges.

This “escape from freedom,” which Fromm witnessed in the aftermath of World War I, is primarily manifested in authoritarianism, founded on “the conviction that life is determined by forces outside of man’s own self, his interest, his wishes. The only possible happiness lies in the submission to those forces.”³¹ Fromm’s theory was applied in a major empirical study by Theodor Adorno and others,³² who explained it developmentally in terms of child-parent relations, and postulated a number of features, including authoritarian aggression and submission, superstition, black-and-white views, destructiveness, and heightened prejudice. Adorno’s theory has been criticized on both conceptual and empirical grounds, but one early finding that has been supported



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in more recent studies is that some sort of authoritarianism seems characteristic of the political right but not the political left.³³

Related to authoritarianism or hypertrust is the problem of hyperobedience, revealed in the classic but highly debated study by Stanley Milgram.³⁴ In this famous project from the early 1960s, Milgram devised an experiment whereby subjects were instructed to administer electric shocks to students when they missed answers on a verbally administered quiz, increasing the level of shock with each mistake. The shocks were not real, but the students acted as if they were in considerable pain. Nonetheless, on the stern urging of the experimenter, the majority of subjects raised the shock level to the maximum of 450 volts in spite of severe posted warnings on the device, the students' apparent pain, and the subject's own expressed doubts. Milgram says:

This is . . . the most fundamental lesson of our study: ordinary people, simply doing their jobs, and without any particular hostility on their part, can become agents in a terrible destructive process. Moreover, even when the destructive effects of their work become patently clear, and they are asked to carry out actions incompatible with fundamental standards of morality, relatively few people have the resources needed to resist authority.³⁵

Yet authoritarianism and obedience are complex. We found this by asking people if they had doubts about their trust in authority, which many of our respondents were quite willing to share with us. Respondent 195, a 33-year-old woman from Texas, for instance, said of science:

The distrust comes with thinking that they've got this report out on this now but ten years from now they're gonna realize they were wrong or there's more to it, and, so you wonder how much to believe.

And of religion:

Just more and more I'm seeing that there's a lot of corruption in religious leaders as there are with anybody else in a position of power and it just makes me wonder if the organizational part of religion is really necessary.

And of government:

I'm never sure what to believe when one thing comes out because there's always gonna be something else, and half the time you're not getting the whole story.

And of nature:

Not so much [struggle over trust] with that as with the others, I mean, nature in and of itself is not really trying to be deceptive. There may be mysteries, but it's not an intentional deception.

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What does this all mean? In particular, is trust in science and/or religion necessarily linked with authoritarian obedience, or does it lead to more responsible forms? I could produce evidence supporting a favorable or harsh reading of both, but there are warning signs. For religion, think of the old standard hymn “Trust and Obey,” and the injunction in the New Testament—one I often hear on patriotic Christian-radio talk shows—from Romans 13, which reads “Everyone must submit himself to the governing authorities, for there is no authority except that which God has established.” Science has no equivalent sacred text with such explicit wording, and yet in its common claims to objectivity and universality, its common excuse that values are beyond the pale of science, there can be an implicit call to a similarly singular obedience. I suspect that authoritarianism is possible with any authority, but is certainly exacerbated if encouraged by that institution of authority.

Reenvisioning Science, Religion, and Trust

Consider, by way of conclusion, three alternatives for science, religion, and the webs of trusting relationships we spin with them. The first option, the authoritarian vision, is commitment without critique: science and/or religion possess insights to dazzling realities, and we would do well to follow them without question. The second is its opposite, critique without commitment, perhaps embodied in the paradigm of secularization with respect to religion. The third alternative is to explore ways of blending commitment and critique, to refuse to believe that these are zero-sum entities such that the more committed you are, the less your apparent capacity to think for yourself, and the more critical you become, the less bound you apparently are to communities that struggle for meaning.

I would like to reflect on these three options by closing, as I began, with reference to a major film on science and religion, one I suspect you may have seen. In 1890, an aspiring writer declared the following:

The age of faith is sinking slowly into the past; our new unfaith gives us an eager longing to penetrate the secrets of Nature—an aspiration for knowledge we have been taught is forbidden. . . . The number of churchgoers is gradually growing less. The people are beginning to think that studying science . . . is the enemy of the church. Science, however, we know to be true.³⁶

Ten years later this writer published a little book titled *The Wonderful Wizard of Oz*, and nearly fifty years later the movie we all know so well was released. Apparently, what the *Chronicles of Narnia* were for English literature scholar

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and Christian apologist C. S. Lewis, *The Wizard of Oz* was, perhaps in a quite different sense, for L. Frank Baum: a popular children's tale presenting a subtle yet sweeping statement about religion.

But what exactly was Baum trying to say? One interpretation, as suggested in his quote noted above, is the triumph of rational critique over religious commitment. This is from an essay entitled "*The Wizard of Oz* as the Ultimate Atheist Metaphor":

In the film *The Wizard of Oz*, L. Frank Baum and Noel Langley have created the quintessential story of mankind's triumph over our primitive beliefs in the supernatural, in organized religion, and even in god.³⁷

Well, well. Now let us consider a rather different interpretation, one that prefers the option of commitment by faith—without doubting, or certainly without critique—to God's path. This interpretation comes from a sermon entitled "Christian Themes in *The Wizard of Oz*":

Very often, God will require that we step out in faith to do what would, to all appearances, seem to be impossible. The wizard says, "Bring me the broomstick of the Wicked Witch of the West. . . . Bring me her broomstick and I'll grant your requests." . . . To all outward appearances, to fetch the broomstick of the wicked witch would seem an impossible task. But with the help of God, all things are possible. . . . And so it is for those who follow the path of the Lord—the path of righteousness. . . . If we are obedient, God will get us through the frightening and evil things we encounter.³⁸

I prefer the third option, of blending commitment and critique. As I have suggested earlier, commitment without critique is not only dangerous, it is ultimately irresponsible in the deepest sense of personal responsibility. But commitment without critique is at least an option; critique without commitment is not. To imagine that one is an entirely independent and free thinker, that one trusts no authority outside of oneself, is delusional. We can change our commitments, but we cannot cease to commit ourselves to some form of epistemic and moral authority. "Trust thyself," Emerson invoked; but if each of us trusted only what we directly experience and understand, our lives would grind to a halt.

We get, I believe, no better sense of the life of blending commitment and critique than as is revealed near the conclusion to *The Wizard of Oz*. Dorothy and her companions, who traveled far to find the Wizard and undertook a perilous assignment at his demand, have finally vanquished the Wicked Witch of the West and returned to the Wizard. And he is still a terrifying authority to them. Yet, as the Scarecrow points out to Dorothy in this picture, her humble



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dog, Toto, has revealed that the Great and Powerful Oz is just an ordinary man standing behind a curtain.

But the movie does not end there. The human face of authority does not necessarily deny its potential for wisdom, a far deeper form of authority than one based on power and inaccessibility. The Wizard of Oz is just a man, but he is a rather wise man and imparts to Dorothy and her companions gifts that are far more profound than they had requested. Each comes with a sly twist: as, for example, the Wizard presents a diploma to the Scarecrow he confers on him the “honorary degree of Th.D.”—not a doctorate in theology, but a doctorate in what the Wizard calls “Thinkology.” By trusting this man even after his mystique has vanished, Dorothy and her companions are transformed. Dorothy ultimately learns that she must trust herself in order to get home, but by trusting the Wizard she and her companions have learned to trust themselves.

This is where blending commitment and critique come together, as both necessitate trust: trust in the wisdom that lies beyond oneself implied in commitment, and trust of one’s own doubts and strengths implied in critique. Let us remember that, by pulling the curtains open on science, religion, nature, the state, or any other authority we trust to guide us, we will reveal the inescapable humanness of these institutions of authority. They are but the finger pointing to the moon.

There is, I would venture, no Great and Powerful Oz, at least in the form of a man up in the clouds, nor in the form of some scientifically tractable force out there guiding the unfolding of the universe. But there decidedly is something we experience called the Moon, and we make sense of that experience in part by trusting those authorities we deem wise.

My hope is to have suggested how commitment and critique can indeed get along, how both religious and scientific commitment can be big enough to embrace the hard questions the scholarly community—which itself embodies certain commitments it must acknowledge—will pose. It will take an effort from each one of us, but if we work at it we can collectively remove science and religion from their pedestals, invigorate them with humanity and humility, and ultimately develop a deeper trust and respect for them, and for each other, in the process.

NOTES

1. I would like to acknowledge the helpful comments of Catherine Albanese and Jon Cruz, who served as discussants for the original lecture presented on May 15, 2003.
2. James L. Ford, “Buddhism, Christianity, and *The Matrix*: The Dialectic of Myth-Making in Contemporary Cinema,” *The Journal of Religion and Film* 4.2 (2000).
3. The project is discussed in more detail on a Web site, <http://real.geog.ucsb.edu/esr>. I would like to acknowledge the generosity of the National Science Foundation via research grant BCS-0082009. I’d especially like to acknowledge two graduate



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students, Evan Berry of Religious Studies and Tricia Mein of Sociology, who worked alongside me.

4. Catherine L. Albanese, *Nature Religion in America: From the Algonkian Indians to the New Age*, Chicago History of American Religion (Chicago: University of Chicago Press, 1990); Catherine L. Albanese, *Reconsidering Nature Religion* (Harrisburg, Pa.: Trinity Press International, 2002).

5. See, for instance, Ian L. McHarg, *Design with Nature* (Garden City, N.Y.: Natural History Press, 1969).

6. Robert Neelly Bellah, *The Broken Covenant: American Civil Religion in a Time of Trial* (New York: Seabury Press, 1975).

7. We also were interested in trust in self, but discovered that few people were willing to admit they didn't trust themselves, so the notion of self as authority won't be included here.

8. Brian J. Zinnbauer, Kenneth I. Pargament, Brenda Cole, Mark S. Rye, Eric M. Butter, Timothy G. Belavich, Kathleen M. Hipp, Allie B. Scott, and Jill L. Kadar, "Religion and Spirituality: Unfuzzifying the Fuzzy," *Journal for the Scientific Study of Religion* 36.4 (1997): 549–564; Penny Long and C. Kirk Hadaway Marler, "'Being Religious' or 'Being Spiritual' in America: A Zero-Sum Proposition?," *Journal for the Scientific Study of Religion* 41.2 (2002): 289–300.

9. Thanks to Paolo Gardinali and UCSB's Social Science Survey Center for their assistance.

10. Alexis de Tocqueville, Henry Reeve, and John C. Spencer, *Democracy in America* (New York: J. and H. G. Langley, 1841); 2: Chapter 8.

11. Data available from ISSP Web site at www.issp.org; all analyses cited here and below, by author.

12. Michael Polanyi, *Science, Faith and Society*, Riddell Memorial Lectures (London: Oxford University Press, 1946).

13. Mary Midgley, *Science as Salvation: A Modern Myth and Its Meaning*, Gifford Lectures (London: Routledge, 1992).

14. *Ibid.*, 57.

15. See Niklas Luhmann, *Trust and Power: Two Works* (Chichester: John Wiley and Sons, 1979).

16. Francis Fukuyama, *Trust: The Social Virtues and the Creation of Prosperity* (New York: Free Press, 1995).

17. Anthony Giddens, *The Consequences of Modernity* (Stanford: Stanford University Press, 1990).

18. Erik H. Erikson, *Childhood and Society* (New York: W. W. Norton, 1950).

19. Luhmann, *Trust and Power*.

20. Hannah Arendt, *Between Past and Future: Eight Exercises in Political Thought* (New York: Viking Press, 1968).

21. Sociologist Max Weber further distinguishes between rational, traditional, and charismatic appeals to legitimate authority. See Max Weber, *Economy and Society: An Outline of Interpretive Sociology* (New York: Bedminster Press, 1968).

22. Stephen Jay Gould, *Rocks of Ages: Science and Religion in the Fullness of Life*, The Library of Contemporary Thought (New York: Ballantine Publishing Group, 1999).

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23. Hilary Putnam, *The Collapse of the Fact/Value Dichotomy and Other Essays* (Cambridge: Harvard University Press, 2002).
24. Leon Festinger, *A Theory of Cognitive Dissonance* (Stanford: Stanford University Press, 1957); Elliot Aronson, "The Theory of Cognitive Dissonance: The Evolution and Vicissitudes of an Idea," in *The Message of Social Psychology: Perspectives on Mind and Society*, eds. Craig McGarty and S. Alexander Haslam (Cambridge, Mass.: Blackwell Publishers, 1997), 20–35.
25. See <http://www.nasa.gov/columbia/home/index.html>.
26. Stephen Edelston Toulmin, *Cosmopolis: The Hidden Agenda of Modernity* (Chicago: University of Chicago Press, 1992).
27. Evelyn Fox Keller, *Reflections on Gender and Science* (New Haven: Yale University Press, 1995), 70.
28. See Hilary Putnam's excellent treatment in his *The Collapse of the Fact/Value Dichotomy and Other Essays* (Cambridge, Mass.: Harvard University Press, 2002).
29. Alan D. Sokal, "Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity," *Social Text* 46/47 (spring-summer 1996): 217–252.
30. Erich Fromm, *Escape from Freedom* (New York: Rinehart and Company, Inc., 1941).
31. *Ibid.*, 171.
32. Theodor W. Adorno, *The Authoritarian Personality*, Studies in Prejudice (New York: Harper and Row, 1950).
33. Jim Sidanius and Felicia Pratto, *Social Dominance: An Intergroup Theory of Social Hierarchy and Oppression* (Cambridge: Cambridge University Press, 1999).
34. Stanley Milgram, *Obedience to Authority: An Experimental View* (New York: Harper and Row, 1974).
35. *Ibid.*, 6.
36. Quoted in William Leach, *Land of Desire: Merchants, Power, and the Rise of a New American Culture* (New York: Pantheon Books, 1993), 247.
37. Kevin Courcay, "The Wizard of Oz as the Ultimate Atheist Metaphor," *The Willamette Freethinker*, Corvallis Secular Society, Oregon, January 1998. Available online at <http://css.peak.org>.
38. Richard M. Riss, *Christian Themes in 'The Wizard of Oz,' 1997*. Available online at http://www.grmi.org/renewal/Richard_Riss/sermons/0003.html.



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