

How to Think about Weird Things

Critical Thinking for a New Age

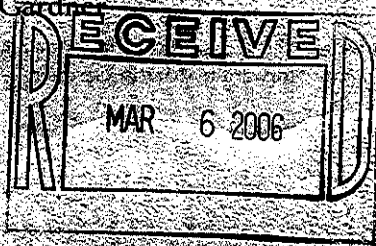
FOURTH EDITION

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FOUR

Relativism, Truth, and Reality

*There is nothing so
powerful as truth,
and often nothing
so strange.*

— DANIEL WEBSTER

WE GIVE YOU A PARABLE:

Four men came upon a duck — or what seemed a duck.

"It quacks like a duck. It waddles like a duck. It's a duck,"
said the first man.

"To you it's a duck, but to me it's not a duck, for we each
create our own reality," said the second man.

"In your society it may be a duck, but in mine it's not; re-
ality is socially constructed," said the third man.

"Your conceptual scheme may classify it as a duck, but
mine doesn't; reality is constituted by conceptual schemes,"
said the fourth.

This discussion may seem to be a strange one, but you
may have engaged in such a discussion yourself. Have you

ever been told, "What's true for you isn't true for me"? If so, you have come face-to-face with the problem of relativism. The problem is this: Does reality exist independently of our ways of representing it, or do individuals, societies, or conceptual schemes create their own realities by representing it in different ways? Those who accept the first alternative are called "external realists," or "realists" for short, because they do not believe that reality depends on our thoughts about it. Those who accept the second alternative are called "relativists" because they believe that the way the world is depends on what we think about it.

To say that reality exists independently of how we represent it to ourselves is not to say that there is one correct way to represent it. Reality can be represented in many different ways, just as a territory can be mapped in many different ways. Consider, for example, road maps, topographical maps, and relief maps. These maps use different symbols to represent different aspects of the terrain, and the symbols that appear on one map may not appear on another. Nevertheless, it makes no sense to say that one of these maps is the correct map. Each can provide an accurate representation of the territory.

Relativism is appealing to many people because they incorrectly assume that realism entails absolutism—the view that there is only one correct way to represent reality. As Alan Bloom reveals:

There is one thing a professor can be absolutely certain of: almost every student entering the university believes that truth is relative. . . . The relativity of truth is not a theoretical insight but a moral postulate, the condition of a free society, or so they see it. . . . That it is a moral issue for students is revealed by the character of their response when challenged—a combination of disbelief and indignation: "Are you an absolutist?" the only alternative they know, uttered in the same tone as "Are you a monarchist?" or "Do you really believe in witches?"¹

Absolutism is considered morally objectionable because it leads to intolerance. After all, weren't all persecutions in history perpetrated by those who believed in objective reality and knew that their view of it was the correct one? Relativism, on the other hand, is supposed to foster tolerance, implying that different views are entitled to equal respect because they're equally true.

We have seen that relativists are wrong in assuming that realism implies absolutism. From the fact that reality exists independently of our representations of it, it doesn't follow that there is one correct way to represent reality. It remains to be seen whether they are correct in assuming that relativism fosters tolerance. To evaluate that claim, we'll have to take a closer look at the various types of relativism.

*As scarce as truth is,
the supply has always
been in excess of
the demand.*

—JOSH BILLINGS

WE EACH CREATE OUR OWN REALITY

The view of the second man is that we each create our own reality. Many people, past and present, have embraced this idea and thought it both liberating and profound. Actress Shirley MacLaine, for example, declared in the introduction to her book *Out on a Limb*:

If my search for inner truth helps give you, the reader, the gift of insight, then I am rewarded. But my first reward has been the journey through myself, the only journey worth taking. Through it all I have learned one deep and meaningful lesson: LIFE, LIVES, and REALITY are only what we each perceive them to be. Life doesn't happen to us. We make it happen. Reality isn't separate from us. We are creating our reality every moment of the day. For me that truth is the ultimate freedom and the ultimate responsibility.²

The mind does not create what it perceives, any more than the eye creates the rose.

—RALPH WALDO
EMERSON

Later, to the amazement of her friends, she followed this claim to its logical conclusion—to solipsism, the idea that “I alone exist” and create all of reality. In *It's All in the Playing*, she tells how she scandalized guests at a New Year's Eve party when she expressed solipsistic sentiments:

I began by saying that since I realized I created my own reality in every way, I must therefore admit that, in essence, *I was the only person alive in my universe*. I could feel the instant shock waves undulate around the table. I went on to express my feeling of total responsibility *and power* for all events that occur in the world because the world is happening only in my reality. *And human beings feeling pain, terror, depression, panic, and so forth, were really only aspects of pain, terror, depression, panic and so on, in me!* . . . I knew I had created the reality of the evening news at night. It was my reality. But whether anyone else was experiencing the news *separately* from me was unclear, because *they* existed in my reality too. And if they reacted to world events, then I was creating them to react so I would have someone to interact with, thereby enabling myself to know me better.³

In 1970, long before MacLaine spoke of creating reality, a book called *The Seth Material* was published. It was to be one of many best-sellers based on the words of a putative entity named Seth (a personality “no longer focused in physical reality”) and “channeled” by novelist Jane Roberts. A major theme of the book is that physical reality is our own creation:

Seth says that we form the physical universe as unselfconsciously as we breathe. We aren't to think of it as a prison from which we will one day escape, or as an execution chamber from which all escape is impossible. Instead *we form matter* in order to operate in three-

dimensional reality, develop our abilities and help others. . . . Without realizing it we project our ideas outward to form physical reality.

Our bodies are the materialization of what we think we are. We are all creators, then, and this world is our creation.⁴

So do we each make physical reality? At one time, biologist Ted Schultz was attracted to this idea but soon came to have doubts about it.

I began to wonder about the logical extensions of "consensus reality," "personal reality," and the power of belief. Supposing a schizophrenic was totally convinced that he could fly. Could he? If so, why weren't there frequent reports from mental institutions of miracles performed by the inmates? What about large groups of people like the Jehovah's Witnesses, who devoutly believed that Jesus would return on a particular day? Hadn't he failed to appear twice in that religion's history (in 1914 and 1975), forcing the faithful to reset the dates? What if the inhabitants of some other solar system believed astronomical physics to work differently than we believe they do on earth? Could both be true at the same time? If not, which would the universe align itself with? Does the large number of Catholics on earth make the Catholic God and saints a reality? Should I worry about the consequences of denying the Catholic faith? Before Columbus, was the earth really flat because everyone believed it to be? Did it only "become" round after the consensus opinion changed?⁵

What could be more appealing than the notion that if we just believe in something, it will become true? Just the same, as Schultz indicates, there are serious problems with the idea that belief alone can transfigure reality. For one thing, it involves a logical contradiction. If it's true that our beliefs can alter reality, then what happens when different people have opposing beliefs? Let's say that person A believes p (a statement about reality), and p therefore becomes true. Person B, however, believes not- p , and it becomes true. We would then have the same state of affairs both existing and not existing simultaneously—a logical impossibility. What if A believes that all known terrorists are dead, and B believes that they're not dead? What if A believes that the Earth is round, and B believes it's flat? Since the supposition that our beliefs create reality leads to a logical contradiction, we must conclude that reality is independent of our beliefs.

Solipsists can avoid this problem because, in their view, there is only one person in the world and hence only one person doing the believing. But is it reasonable to believe that there is only one person in the world and that that person creates everything there is by merely thinking about it? Consider your own experience.

The truth is not only stranger than you imagine, it is stranger than you can imagine.

—J. B. S. HALDANE

The Crime of Gabriel Gale

A number of writers have wrestled with the problem of solipsism. According to science writer Martin Gardner, none have expressed this struggle quite as eloquently as author G. K. Chesterton:

Although there has never been a sane solipsist, the doctrine often haunts young minds. G. K. Chesterton is a case in point. In his autobiography he writes about a period in his youth during which the notion that maybe nothing existed except himself and his own phaneron [sense experiences] had caused him considerable anguish. He later became a realist, and there are many places in his writings where he warns against the psychic dangers of solipsistic speculation. . . . But nowhere did GK defend his realism with more passionate intensity than in a story called "The Crime of Gabriel Gale." It can be found in *The Poet and the Lunatic*, my favorite among GK's many collections of mystery stories about detectives other than Father Brown.

Since this book may be hard to come by, here is a brief summary of the story's plot. Gabriel Gale, poet, artist, and detective, is accused of a terrible crime. It seems that on a wild and stormy night Gale had thrown a rope around the neck of a young man who was preparing for the Anglican ministry. After dragging the poor fellow into a wood, Gale pinned him for the night against a tree by forcing the two prongs of a large pitchfork into the trunk on either side of the man's neck. After Gale is arrested for attempted murder, he suggests to the police that they obtain the opinion of his victim.

The surprising reply comes by telegraph: "Can never be sufficiently grateful to Gale

for his great kindness which more than saved my life."

It turns out that the young man had been going through the same insane phase that had tormented GK in his youth. He was on the verge of believing that his phaneron did not depend on anything that was not entirely inside his head. Gabriel Gale, always sensitive to the psychoses of others (having felt most of them himself), had realized that the man's mind was near the snapping point. Gale's remedy was radical. By pinning the man to the tree he had convinced him, not by logic (no one is ever convinced by logic of anything important) but by an overpowering experience. He found himself firmly bound to something that his mind could in no way modify.

"We are all tied to trees and pinned with pitchforks," Gale tells the half-comprehending police. "And as long as these are solid we know the stars will stand and the hills will not melt at our word. Can't you imagine the huge tide of healthy relief and thanks, like a hymn of praise from all nature, that went up from that captive nailed to the tree, when he had wrestled till the dawn and received at last the great and glorious news, the news that he was only a man?"

The story ends when the man, now a curate, remarks casually to an atheist, "God wants you to play the game."

"How do you know what God wants?" asks the atheist. "You never were God, were you?"

"Yes," says the clergyman in a queer voice. "I was God once for about fourteen hours. But I gave it up. I found it was too much of a strain."⁶

You have a leaking faucet. You position a bucket to catch the drops. You leave the room. When you return, the bucket is full of water, the sink is overflowing, and the carpet is soaked. Simple events like this—and billions of other experiences—lead us to believe that causal sequences continue whether we're experiencing them or not, as though they were independent of our minds.

You open a closet door, and—surprise!—books fall on your head. The last thing on your mind was falling books. It's as though such events were causally connected to something outside our minds.

You fall asleep on your bed. When you awaken the next day, everything in the room is just as it was before you drifted off. It's as though your room continued to exist whether you were thinking about it or not.

You hold a rose in your hand. You see it, feel it, smell it. Your senses converge to give you a unified picture of this flower—as though it existed independently. If it's solely a product of your mind, this convergence is more difficult to account for.

Every day of your life, you're aware of a distinction between experiences that you yourself create (like daydreams, thoughts, imaginings) and those that seem forced on you by an external reality (like unpleasant smells, loud noises, cold wind). If there is an independent world, this distinction makes sense. If there isn't and you create your own reality, the distinction is mysterious.

The point is that the existence of an independent world explains our experiences better than any known alternative. We have good reason to believe that the world—which seems independent of our minds—really is. We have little if any reason to believe that the world is our mind's own creation. Science writer Martin Gardner, in an essay on solipsism, puts the point like this:

We, who of course are not solipsists, all believe that other people exist. Is it not an astonishing set of coincidences—astonishing, that is, to anyone who doubts an external world—that everybody sees essentially the same phaneron [phenomena]? We walk the same streets of the same cities. We find the same buildings at the same locations. Two people can see the same spiral galaxy through a telescope. Not only that, they see the same spiral structure. The hypothesis that there is an external world, not dependent on human minds, made of *something*, is so obviously useful and so strongly confirmed by experience down through the ages that we can say without exaggerating that it is better confirmed than any other empirical hypothesis. So useful is the posit that it is almost impossible for anyone except a madman or a professional metaphysician to comprehend a reason for doubting it.⁷

The belief that there is an external reality is more than just a convenient fiction or a dogmatic assumption—it is the best explanation of our experience.

While it's ludicrous to believe that our minds create external reality, it's perfectly reasonable to believe that our minds create our beliefs about external reality. As we have seen, the mind is not merely a passive receiver of information but an active manipulator of it. In our attempt to understand and cope with the world, each of us forms many different beliefs about it. This diversity of belief can be expressed by saying that what's true for me may not be true for you. Different people take different things to be true. But taking something to be true doesn't make it true.

The view that each of us creates our own reality is known as subjectivism. This view is not unique to the twenty-first century, however. It flourished in ancient Greece over 2,500 years ago. The ancient champions of subjectivism are known as Sophists. They were professors of rhetoric who earned their living by teaching wealthy Athenians how to win friends and influence people. Because they did not believe in objective truth, however, they taught their pupils to argue both sides of any case, which created quite a scandal at the time. (The words *sophistic* and *sophistical* are used to describe arguments that appear sound but are actually fallacious.) The greatest of the Sophists—Protagoras—famously expressed his subjectivism thus: "Man is the measure of all things, of existing things that they exist, and of non-existing things that they do not exist." Reality does not exist independently of human minds but is created by our thoughts. Consequently, whatever anyone believes is true.

Plato (ca. 427–347 B.C.) saw clearly the implications of such a view. If whatever anyone believes is true, then everyone's belief is as true as everyone else's. And if everyone's belief is as true as everyone else's, then the belief that subjectivism is false is as true as the belief that subjectivism is true. Plato put it this way: "Protagoras, for his part, admitting as he does that everybody's opinion is true, must acknowledge the truth of his opponents' belief about his own belief, where they think he is wrong."⁸ Protagorean subjectivism, then, is self-refuting. If it's true, it's false. Any claim whose truth implies its falsehood cannot possibly be true.

It's ironic that Protagoras taught argumentation, because in a Protagorean world, there shouldn't be any arguments. Arguments arise when there is some reason to believe that someone is mistaken. If believing something to be true made it true, however, no one could ever be mistaken; everyone would be infallible. It would be impossible for anyone to have a false belief because the mere fact that they believed

*I never know how
much of what I say
is true.*

—BETTE MIDLER

*Whoever tells the
truth is chased out
of nine villages.*

—TURKISH PROVERB

something would make it true. So if Protagoras's customers took his philosophy seriously, he would be out of a job. If no one can lose an argument, there's no need to learn how to argue.

That subjectivism renders disagreement futile often goes unnoticed. As Ted Schultz observes:

Paradoxically, many New Agers, having demonstrated to their satisfaction that objective truth is the unattainable bugaboo of thick-headed rationalists, often become extremely dogmatic about the minutiae of their own favorite belief systems. After all, if what is "true for you" isn't necessarily "true for me," should I really worry about the exact dates and locations of the upcoming geological upheavals predicted by Ramtha or the coming of the "space brothers" in 2012 predicted by Jose Arguellas?⁹

If the New Agers are right, no one should worry about such things, for if everyone manufactures their own truth, no one could ever be in error.

Much as we might like to be infallible, we know that we aren't. Even the most fervently relativistic New Ager must confess that he or she dials a wrong number, bets on a losing racehorse, or forgets a friend's birthday. These admissions reveal that reality is not constituted by our beliefs. The operative principle here is:

**Just because you believe something to be true
doesn't mean that it is.**

If believing something to be so made it so, the world would contain a lot fewer unfulfilled desires, unrealized ambitions, and unsuccessful projects than it does.

REALITY IS SOCIALLY CONSTRUCTED

The basic idea behind the third man's claim is that if enough people believe that something is true, it literally becomes true for everyone. We don't each create our own separate realities—we all live in one reality, but we can radically alter this reality for everybody if a sufficient number of us believe. If within our group we can reach a kind of consensus, a critical mass of belief, then we can change the world.

Probably the most influential articulation of this idea was a book called *The Crack in the Cosmic Egg* by Joseph Chilton Pearce.¹⁰ In it, Pearce asserted that people have a hand in shaping physical reality—even the laws of physics. We can transform the physical world, or parts of it, if enough of us believe in a new reality. If we attain a group consensus, we can change the world any way we want—for everyone.

You may not be coming from where I'm coming from, but I know that relativism isn't true for me.

—ALAN GARFINKEL

Facts do not cease to exist because they are ignored.

—ALDOUS HUXLEY

The Sokal Hoax

New Agers are not the only ones who believe that reality is socially constructed. Social constructivists can be found in many literature, communications, and sociology departments as well. Sociologists Bruno Latour and Steve Woolgar, for example, claim that the molecular structure of thyrotropin releasing factor (TRF) was socially constructed in the halls and lounges of a laboratory. They write:

It was not simply that TRF was conditioned by social forces; rather it was constructed by and constituted through microsocial phenomena. . . . Argument between scientists transforms some statements into figments of one's subjective imagination and others into facts of nature.¹¹

Latour and Woolgar seem to be saying that scientists possess a particularly powerful form of psychokinesis. In the process of making up their minds, they brought the structure of the molecule into existence.

Latour and Woolgar's scientific constructivism is no more plausible than Pearce's or Watson's, however. Not even scientists can make something true by simply believing it to be true. To show just how intellectually bankrupt the constructivist position is, Alan Sokal, a physicist at New York University, submitted a

parody of constructivist reasoning entitled "Transgressing the Boundaries: Towards a Transformative Hermeneutics of Quantum Gravity" to a leading constructivist journal, *Social Text*. The editors of the journal didn't recognize that it was a parody, however, even though it was filled with bogus claims that even a freshman physics student should have been able to spot. Why did Sokal do it? In an article in *Lingua Franca* revealing the parody (which was reported on the front page of the *New York Times*), Sokal explains:

While my method was satirical, my motivation was utterly serious. What concerns me is the proliferation, not just of nonsense and sloppy thinking per se, but of a particular kind of nonsense and sloppy thinking: one that denies the existence of objective realities, or (when challenged) admits their existence but downplays their practical relevance. At its best, a journal like *Social Text* raises important issues that no scientist should ignore — questions, for example, about how corporate and government funding influence scientific work. Unfortunately, epistemic relativism does little to further the discussion of these matters.¹²

In recent years, this extraordinary thesis — that if enough people believe in something, it suddenly becomes true for everyone — has been enormously influential. It got its single biggest boost from the hundredth monkey phenomenon (mentioned in Chapter 1), a story told by Lyall Watson in his book *Lifetide*. This tale has been told and retold in a best-selling book by Ken Keyes called *The Hundredth Monkey*, in a film with the same name, and in several articles.

Here's the story: Watson tells of reports coming from scientists in the 1950s about wild Japanese monkeys on the island of Koshima.

After the monkeys were given raw sweet potatoes for the first time, one of the monkeys, named Imo, learned to wash the sand and grit off the potatoes by dunking them in a stream. In the next few years, Imo taught this skill to other monkeys in the colony. "Then something extraordinary took place," says Watson.

The details up to this point in the study are clear, but one has to gather the rest of the story from personal anecdotes and bits of folklore among primate researchers, because most of them are still not quite sure what happened. And those who do suspect the truth are reluctant to publish it for fear of ridicule. So I am forced to improvise the details, but as near as I can tell, this is what seems to have happened.

In the autumn of that year [1958] an unspecified number of monkeys on Koshima were washing sweet potatoes in the sea, because Imo had made the further discovery that salt water not only cleaned the food but gave it an interesting new flavor. Let us say, for argument's sake, that the number was ninety-nine and that at eleven o'clock on a Tuesday morning, one further convert was added to the fold in the usual way. But the addition of the hundredth monkey apparently carried the number across some sort of threshold, pushing it through a kind of critical mass, because by the evening almost everyone in the colony was doing it. Not only that, but the habit seems to have jumped natural barriers and to have appeared spontaneously, like glycerin crystals in sealed laboratory jars, in colonies on other islands and on the mainland in a troop at Takasakiyama.¹³

Watson uses the story to support the consensus-truth thesis. But you might ask at this point, "Is the story true? Did these events really happen?" (Many people who retold the story in books and articles never bothered to ask this question.)

If it did happen, it would be of enormous scientific interest. But it still wouldn't constitute proof of the thesis that a critical mass of humans can make something true for everyone else. For one thing, the evidence could easily support alternative hypotheses—perhaps the potato-washing habit wasn't really spread, but resulted from independent experimentation and learning by different monkeys (in other words, other monkeys learned it the way Imo did).

On the other hand, if the story didn't happen, this wouldn't prove that the consensus-truth thesis was false, either. It would simply mean that one potential piece of empirical evidence that would justify our believing in the thesis was not valid.

As it turns out, *the story didn't happen*, at least not as told by Watson and others. (See the accompanying boxes on pages 99 and 102 for a critical evaluation of the Watson story.)

It is proof of a base and low mind for one to wish to think with the masses or majority merely because the majority is the majority. Truth does not change because it is, or is not, believed by a majority of the people.

—GIORDANO BRUNO

Regardless of the literal truth of Watson's story, though, we can still scrutinize his thesis. In *Lifetide* he says, "When enough of us hold something to be true, it becomes true for everyone."¹⁴ If by this he means that consensus belief by groups of people can literally alter physical reality (Pearce's notion), he's mistaken.

It's just as implausible to believe that the thoughts of a group of people (or monkeys) create external reality as it is to believe that the thoughts of an individual person create external reality. But it is not at all implausible to believe that social forces influence individual thoughts. What we believe is largely a function of the society in which we were brought up. For example, if we were raised in a Hindu society, we may believe that God is an impersonal force. If we were raised in a Buddhist society, we may believe that there is no God. And if we were raised in a Christian society, we may believe that God is an immaterial person. But the fact that society believes something to be true doesn't make it true. If it did, societies would be infallible, and we know that's not the case. Societies used to believe that the Earth was flat, that the sun orbited the Earth, and that storms were caused by angry gods. In each case, society was wrong. We must conclude, then, that:

**Just because a group of people believe that something
is true doesn't mean that it is.**

Groups are just as prone to error as individuals are—perhaps more so. We can't justify our beliefs by claiming that everyone shares them, for everyone may be mistaken. To attempt to do so is to commit the *fallacy of appeal to the masses*.

What's more, if society were infallible, it would be impossible to disagree with society and be correct. Since truth is whatever society says it is, any claim that society is wrong would have to be false. Thus social reformers could never justifiably claim that truth is on their side.

According to social constructivism, then, our founding fathers were deluded in believing that there were truths that applied universally to all people regardless of what society they belonged to—truths like everyone is created equal; everyone has the right to life, liberty, and the pursuit of happiness; and everyone has the right to alter or abolish any government that becomes destructive of these rights. If truth is relative to society, no such universal truths exist. Whatever society says, goes. Here's tyranny of the majority with a vengeance.

But suppose (as may well be the case) that our society agrees with our founding fathers that not all truth is socially constructed. Does

*Most men live like
raisins in a cake
of custom.*

—BRAND BLANSHARD

*The exact contrary
of what is generally
believed is often
the truth.*

—JEAN DE LA
BRUYERE

A Closer Look at the Hundredth Monkey Phenomenon

Lyall Watson, a writer specializing in paranormal topics, was the first to tell the hundredth-monkey story, which seemed to support the idea of paranormal group consciousness. The story focuses on a troop of macaques living on islands in Japan and is documented by references to research reports by Japanese primatologists. The story says that the monkeys suddenly and miraculously learned the habit of potato washing. Surprisingly, few people questioned whether Watson's story ever actually happened. Ron Amundson, a professor of philosophy, did question it. He checked to see if Watson's story accurately reflected what was contained in the research reports. He concluded that it did not. Here are excerpts from his analysis:

There was nothing mysterious, or even sudden, in the events of 1958. Nineteen fifty-eight and 1959 were the years of maturation of a group of innovative youngsters. The human hippies of the 1960s now know that feeling. In fact 1958 was a singularly poor year for habit acquisition on Koshima. Only two monkeys learned to wash potatoes during that year, young females named Zaban and Nogi. An average of three a year had learned potato washing during the previous five years. There is no evidence that Zaban and Nogi were psychic or in any other way unusual.

Let us try to take Watson seriously for a moment longer. Since only two monkeys learned potato washing during 1958 (according to Watson's own citation), one of them must have been the "Hundredth Monkey." Watson leaves "unspecified" which monkey

it was, so I am "forced to improvise" and "say, for argument's sake" that it was Zaban. This means that poor little Nogi carries the grim metaphysical burden of being the "almost everyone in the colony" who, according to Watson, suddenly and miraculously began to wash her potatoes on that autumn afternoon.

Watson claims that the potato-washing habit "spontaneously" leaped natural barriers. Is there evidence of this? Well, Japanese primatologists Masao Kawai and Atsuo Tsumori report that the behavior was observed off Koshima, in at least five different colonies. Their reports specifically state that the behavior was observed only among a few individual monkeys and that it had not spread throughout a colony. There is no report of when these behaviors occurred. They must have been observed sometime between 1953 and 1967. But there is nothing to indicate that they followed closely upon some supposed miraculous event on Koshima during the autumn of 1958, or that they were in any other way remarkable. In fact there is absolutely no reason to believe in the 1958 miracle on Koshima. There is every reason to deny it. Watson's description of the event is refuted in great detail by the very sources he cites to validate it. In contrast to Watson's claims of a sudden and inexplicable event, "Such behavior patterns seem to be smoothly transmitted among individuals in the troop and handed down to the next generation," according to Tsumori.¹⁵

One must accept the truth from whatever source it comes.

—MAIMONIDES

this conclusion mean that social constructivism is false? According to the constructivist doctrine, it does. You see, social constructivism faces the same problem that subjectivism does: If every society's belief is as true as every other's, then a society's belief that reality is not socially constructed is also true. Just as a subjectivist must recognize the truth of another individual's opposing view, so a social constructivist must recognize the truth of another society's opposing view.

Social constructivists would have us believe that no one can legitimately criticize another society. As long as a society is acting on what it believes to be true, no one can defensibly claim that what it's doing is wrong. Suppose, for example, that during World War II the German people agreed with the Nazis that the Jews were a plague on humankind and needed to be eradicated. If so, then according to social constructivism, the Holocaust was justified. Since the Nazis were acting on what their society believed to be true, they were doing the right thing. Like Protagoras, social constructivists have to consider the Nazis' view as true as everyone else's.

If you disagree—if you believe that the Nazis were wrong even if they had the support of the German people—then you can't be a social constructivist, for you have admitted that society can be mistaken. Given the history of civilization, such a conclusion seems unavoidable. Society has been wrong about many things: that kings have a divine right to rule, that letting blood cures disease, or that women are inferior to men, just to name a few. So the doctrine of social constructivism has little to recommend it.

The truth may not be helpful, but the concealment of it cannot be.

—MELVIN KONNER

Since social constructivism holds that what makes a proposition true is that society believes it to be true, it follows that whenever individuals disagree about the truth of a proposition, what they must really disagree about is whether their society believes it or not. But are all our disputes really about what society believes? Suppose we disagree about whether the universe contains black holes. Can we really resolve this dispute by simply polling the members of our society? Of course not. Even disagreements about the truth of various moral principles can't be settled by opinion surveys. Whether abortion is morally justified, for example, can't be determined by simply canvassing the populace. So truth must be more than just social consensus.

Even if truth were manufactured by society, it wouldn't be any easier to find, for there is no single society to which each of us clearly belongs. Suppose, for example, that you were a black Jewish communist living in Bavaria during the 1940s. Which would be your real society? The blacks? The Jews? The communists? The Bavarians? Unfortunately, there is no way to answer this question because we all belong to a number of different societies, none of which can claim to be our

real society. So not only is social constructivism not a very reasonable theory, it's not a very useful one either.

REALITY IS CONSTITUTED BY CONCEPTUAL SCHEMES

Common sense tells us that neither individuals nor societies are infallible. Both can believe things that are false, and something can be true even if no individual or society has ever believed it. To preserve these insights, some relativists, like the fourth man, have claimed that truth is relative not to individuals or societies but to conceptual schemes. A conceptual scheme is a set of concepts for classifying objects. These concepts provide categories into which the items of our experience can be placed. Just as the post office uses pigeonholes to sort mail into deliverable piles, so we use conceptual schemes to sort things into meaningful groups. Different people may sort things differently, however. One person may believe that an item falls under one concept, while someone else may believe that it falls under another. So even though two people share the same concepts, they may apply them differently.¹⁶

To account for individual and social fallibility, the conceptual relativist must maintain that simply believing something to fall under a certain concept isn't enough to make it so. There must be a fact of the matter as to how it should be classified, and that fact can't be determined solely by belief. What, then, is it determined by? According to the conceptual relativist, it is determined, at least in part, by the world. So the conceptual relativist must admit that the world plays a role in determining what's true.¹⁷

Although the world constrains the truth, conceptual relativists do not believe that the world uniquely determines the truth, for, in their view, there is no one way that the world is. Rather, different conceptual schemes create different worlds.

For the conceptual relativist, the relationship between conceptual schemes and the world is analogous to that of a cookie cutter and cookie dough. Just as cookie dough takes on whatever shape is imparted to it by a cookie cutter, so the world takes on whatever properties are imputed to it by a conceptual scheme. The world has some properties that are not affected by the conceptual scheme, just as the dough has some properties that are not affected by the cookie cutter. These properties allow the conceptual relativist to account for mistaken classifications. Nevertheless, in an important sense, the world is a product of a conceptual scheme. As philosopher Nelson Goodman puts it, conceptual schemes are ways of making worlds.¹⁸ So people with different conceptual schemes live in different worlds.

*Truth has no special
time of its own. Its
hour is now—always.*

—ALBERT
SCHWEITZER

On Good Myth and Bad Myth

Psychologist Maureen O'Hara was the first to publish a skeptical analysis of Lyall Watson's hundredth-monkey story of a paranormal critical mass of consciousness. She's aware that many people have embraced the tale as a significant myth. She acknowledges the importance of myth in our lives but contends that, as a myth, the Watson story is "profoundly non-humanistic" and a "betrayal of the whole idea of human empowerment":

There are major contradictions in the present idealization of critical mass—seen not only in the Hundredth Monkey story, but in the ideologies of such organizations as est, Bhagwan Rajneesh, and the "Aquarian conspirators." In promoting the idea that, although our ideas are shared by only an enlightened few (for the time being), if we really believe them, in some magical way what we hold to be true becomes true for everyone, proponents of the critical mass ideal ignore the principles of both humanism and democratic open society. The basis for openness in our kind of society is the belief that, for good or ill, each of us holds his or her own beliefs as a responsible participant in a pluralistic culture. Are we really willing to give up on this ideal and promote instead a monolithic ideology in which what is true for a "critical mass" of people becomes true for everyone? The idea gives me the willies. . . .

My objection to the Hundredth Monkey Phenomenon, then, is not that it is a myth,

but that it is bad myth, and that it draws its force not from the collective imagination, but by masquerading as science. It leads us (as I have tried to show) in the direction of propaganda, manipulation, totalitarianism, and a worldview dominated by the powerful and persuasive—in other words, business as usual. . . .

I most emphatically cannot agree that the "Hundredth Monkey myth empowers." In fact, I believe it to be a betrayal of the whole idea of human empowerment. In this myth the individual as a responsible agent disappears; what empowers is no longer the moral force of one's beliefs, not their empirical status, rather, it is the number of people who share them. Once the magic number is reached curiosity, science, art, criticism, doubt and all other such activities subversive of the common consensus become unnecessary or even worse. Individuals no longer have any obligation to develop their own worldview within such a collective—it will come to them from those around. Nor are we called on to develop our arguments and articulate them for, by magic, those around us will catch them anyway. This is not a transformation myth impelling us toward the fullest development of our capacities, but one that reduces us instead to quite literally nothing more than a mindless herd at the mercy of the "Great Communicators." The myth of the Hundredth Monkey Phenomenon is more chillingly Orwellian than Aquarian.¹⁹

One of the most influential proponents of this view is philosopher and historian Thomas Kuhn. His preferred term for a conceptual scheme is *paradigm*. In his text *The Structure of Scientific Revolutions* (see Chapter 2), Kuhn uses the word *paradigm* to refer to particular scientific theories as well as the concepts, methods, and standards used to

arrive at those theories. Paradigms tell scientists what's real and how to go about investigating reality. They indicate what sorts of puzzles are worth solving and what sorts of methods will solve them.

Normal science, says Kuhn, involves trying to solve the puzzles generated by a paradigm. Good theories make predictions that go beyond the data they were intended to explain. Scientists investigate these predictions to see if they are borne out by the facts. If not, they have a puzzle on their hands. Scientists try to solve these puzzles by utilizing the conceptual resources provided by the paradigm. But sometimes no solution can be found. In that case, the scientific community enters a state of crisis and begins to look for a new paradigm that would explain the anomaly. When such a paradigm is found, the scientific community undergoes what Kuhn calls a *paradigm shift*. Since paradigms define reality, undergoing a paradigm shift is like being transported to an alien universe. Kuhn describes it this way:

Examining the record of past research from the vantage of contemporary historiography, the historian of science may be tempted to exclaim that when paradigms change, the world itself changes with them. Led by a new paradigm, scientists adopt new instruments and look in new places. Even more important, during revolutions scientists see new and different things when looking with familiar instruments in places they have looked before. It is rather as if the professional community had been suddenly transported to another planet where familiar objects are seen in a different light and are joined by unfamiliar ones as well. Of course, nothing of quite that sort does occur: there is no geographical transplantation; outside the laboratory everyday affairs usually continue as before. Nevertheless, paradigm changes do cause scientists to see the world of their research engagement differently. In so far as their only recourse to that world is through what they see and do, we may want to say that after a revolution scientists are responding to a different world.²⁰

In Kuhn's view, scientists don't discover reality; they invent it. There is no way the world is, for each paradigm makes its own world. Is this theory plausible? Let's examine some of the implications of this view.

The assumption behind the view that different paradigms create different worlds is that all observation is theory laden. What we observe, says Kuhn, is determined by the theory we accept. For example, those who believe that the Earth is the center of the solar system see a sunrise very differently from those who believe that the sun is the center of the solar system. Because each paradigm manufactures its own data, there are no neutral data that can be used to make objective comparisons between paradigms. As a result, no paradigm can be considered to be objectively better than any other.

A harmful truth is better than a useful lie.

— THOMAS MANN

Even if we grant that all observation is theory laden, however, it doesn't follow that there are no paradigm-neutral data because two paradigms may share some theories in common. For example, proponents of the geocentric (Earth-centered) view of the solar system as well as those of the heliocentric (sun-centered) view could agree that, during a sunrise, the perceived distance between the sun and the horizon gets larger. They could also agree on other observationally relevant theories like the theory of the telescope, the compass, and the sextant. So the dependence of data on theory doesn't rule out objective comparisons between paradigms.

*Facts are facts and
will not disappear on
account of your likes.*

—JAWAHARLAL
NEHRU

What's more, there is reason to believe that at least some observations are not theory laden. If our paradigm determined everything that we observed, then it would be impossible to observe anything that didn't fit our paradigm. But if we never observed anything that didn't fit our paradigm—if we never perceived any anomalies—there would never be any need to undergo a paradigm shift. So Kuhn's theory undermines itself—if we accept his theory of observation, we must reject his history of science.

Neurophysiological research into the nature of perception provides further reason for believing that not all observation is theory laden. Psychologist Edward Hundert explains:

If someone loses the primary visual cortex (say, because of a tumor), they lose their vision; they go almost totally blind. But if they just lose the secondary or tertiary visual cortex, they manifest an unusual condition called visual agnosia. In this condition, visual acuity is normal (the person could correctly identify the orientation of the "E's" on the eye chart). But they lose the ability to identify, name, or match even simple objects in any part of their visual field. . . . This model can be translated into psychological terms as endorsing a functional distinction between "perception" (input analysis) and "cognition" (central processing). . . .

It is easy to see the evolutionary advantage of this whole scheme, with its "upward" input analysis: if our transducers were hooked directly to our central systems, we would spend most of our time seeing (hearing, etc.) the world the way we remember, believe, or expect the world to be. The recognition of novelty—of unexpected stimuli—has extremely obvious evolutionary advantage, and is made possible only by the separation of transducers and central systems by "dumb" input analyzers.²¹

If all observation were theory laden, we would never be able to observe anything new. Since we can observe new things, some observations must be theory free. Hundert suggests that there are two types of observation: recognition and discrimination. Recognition may in-

volve the use of theory, but discrimination does not. By keeping these two functions separate, the brain allows us to deal with the unexpected. Access to an objective reality, then, seems to be a necessary condition of survival.

It also seems to be a necessary condition of communication. If the world really was constituted by conceptual schemes, it would be difficult to account for the fact that people with different conceptual schemes can understand and communicate with one another. Philosopher Roger Trigg explains:

The result of granting that "the world" or "reality" cannot be conceived as independent of all conceptual schemes is that there is no reason to suppose that what the peoples of very different communities see as the world is similar in any way. Unfortunately, however, this supposition is absolutely necessary before any translation or comparison between languages of different societies can take place. Without it, the situation would be like one where the inhabitants of two planets which differed fundamentally in their nature met each other and tried to communicate. So few things (if any) would be matters of common experience that their respective languages would hardly ever run parallel.²²

Because translation is possible among all the different conceptual schemes we know of, the world must not be constituted by conceptual schemes.

Translation requires a common point of reference. Consequently, some people argue that the very notion of an alternate conceptual scheme makes no sense. Philosopher Donald Davidson, for example, claims that if we can translate an alien's utterances into our own, our conceptual schemes must be essentially the same. And if we can't translate their utterances, we have no reason to suppose that they even have a conceptual scheme.²³

As long as we don't consider truth to be relative to conceptual schemes, however, we do not need to reject the notion of alternate conceptual schemes. Without getting too technical, we can say that people who use different concepts have different conceptual schemes. We can even say that people with different conceptual schemes experience the world in different ways. What we can't say is that people with different conceptual schemes live in different worlds, because that statement generates all the problems already discussed. Different conceptual schemes represent the world differently; they don't create different worlds.

Instead of viewing conceptual schemes as cookie cutters, we can view them as maps. A territory, as mentioned earlier, can be mapped in many different ways, and each map, provided that it is an accurate

Reality is that which, when you stop believing in it, doesn't go away.

—PHILIP K. DICK

one, can be considered true. Each science, for example, can be considered a different map of reality. The map provided by biology may contain very few of the concepts contained in the map provided by physics, just as a topographical map may contain very few of the symbols contained in a road map. But both biology and physics can be considered to be maps of the same reality just as topographical and road maps can be considered maps of the same territory, and both can be considered to be true. Whether you consult a biologist or a physicist will depend on what you want to do, just as whether you consult a topographical or a road map will depend on where you want to go. Different theories, like different maps, are good for different things. So there is no one best theory just as there is no one best map. What we must not forget is that, as mathematician Alfred Korzybski famously noted, "the map is not the territory."²⁴ People using different maps are not necessarily traversing different territories, and, contrary to what Kuhn seems to suggest, changing the map we're using doesn't change the territory we're traversing. The territory is what it is and is not affected by our representations of it.

THE RELATIVIST'S PETARD

*All generalizations
are dangerous, even
this one.*

—ALEXANDRE
DUMAS FILS

The considerations presented in this chapter weigh heavily against relativism. But the most serious flaw of relativism in all its forms is a purely logical one: It's self-refuting because its truth implies its falsity.

According to the relativist—whether a subjectivist, a social constructivist, or a conceptual relativist—everything is relative. To say that everything is relative is to say that no unrestricted universal generalizations are true (an unrestricted universal generalization is a statement to the effect that something holds for all individuals, societies, or conceptual schemes). But the statement "No unrestricted universal generalizations are true" is itself an unrestricted universal generalization. So if relativism in any of its forms is true, it's false. As a result, it cannot possibly be true.

To avoid such self-contradiction, the relativist may try to claim that the statement "Everything is relative" is only relatively true. But this claim won't help, because it just says that relativists (or their society or their conceptual scheme) take relativism to be true. Such a claim should not give the nonrelativist pause, for the fact that relativists take relativism to be true is not in question. The question is whether a nonrelativist should take relativism to be true. Only if relativists can provide objective evidence that relativism is true should a nonrelativist believe that it's true. But this evidence is precisely the kind that relativists can't provide, for, in their view, there is no objective evidence.

Relativists, then, face a dilemma: If they interpret their theory objectively, they defeat themselves by providing evidence against it. If they interpret their theory relativistically, they defeat themselves by failing to provide any evidence for it. Either way, relativists defeat themselves.

Philosopher Harvey Siegel describes the dilemma this way:

First the framework relativist must, in order to join the issue with the nonrelativist, defend framework relativism non-relativistically. To "defend" framework relativism relativistically (i.e. "according to my framework, framework relativism is true (correct, warranted, etc.)") is to fail to defend it, since the non-relativist is appropriately unimpressed with such framework-bound claims. But to defend framework relativism non-relativistically is to give it up, since to defend it in this way is to acknowledge the legitimacy of framework-neutral criteria of assessment of claims, which is precisely what the framework relativist must deny. Thus to defend framework relativism relativistically is to fail to defend it; to defend it non-relativistically is to give it up. Thus framework relativism is self-defeating.²⁵

And anything that is self-defeating cannot be true.

The problem with relativists is that they want to have their cake and eat it too. On the one hand, they want to say that they or their society or conceptual scheme is the supreme authority on matters of truth. But, on the other hand, they want to say that other individuals, societies, or conceptual schemes are equally authoritative. Relativists can't have it both ways. As philosopher W. V. O. Quine explains:

Truth, says the cultural relativist, is culture-bound. But if it were, then he, within his own culture, ought to see his own culture-bound truth as absolute. He cannot proclaim cultural relativism without rising above it, and he cannot rise above it without giving it up.²⁶

If individual, social, or conceptual relativism were true, there would be no standpoint outside yourself, your society, or your conceptual scheme from which to make valid judgments. But if there were no such standpoint, you would have no grounds for thinking that relativism is true. In proclaiming that truth is relative, then, relativists hoist themselves on their own petard; they blow themselves up, so to speak.

One must accept the truth from whatever source it comes.

—MAIMONIDES

FACING REALITY

The arguments presented in the previous section indicate that truth isn't relative to individuals, societies, or conceptual schemes. Belief can be relative because different individuals, societies, and conceptual

schemes often have different beliefs. But the existence of relative beliefs doesn't mean that truth is relative, for, as we've seen, you can't make something true by simply believing it to be true. The upshot, then, is that:

**There is an external reality that is independent
of our representations of it.**

In other words, there is a way that the world is. We can represent the world to ourselves in many different ways, but that which is being represented is the same for all of us.

The concept of objective reality is not optional, something we can take or leave. Each time we assert that something is the case or we think that something is a certain way, we assume that there is objective reality. Each time relativists deny objective reality, they entangle themselves in self-refutation and contradictions. In the very argument over the existence of objective reality, both those who accept it and those who deny it must assume it or the argument would never get off the ground.

*The truth may not
be helpful, but the
concealment of it
cannot be.*

— MELVIN KONNER

"But wait," you say. "Still, there must be some things that are 'true for me' and not 'true for you.' If I say that I hate opera, isn't that statement true for me? If I love Bart Simpson, have a pain in my left leg, or am bored silly by discussions of politics, aren't these assertions true for me?"

Clearly there are things about ourselves that are relative—that are a certain way to us and a different way to others. Personal characteristics—peculiarities of psychology and physiology—are relative to persons (Jane likes pizza, but Jack doesn't; Jane has a mole on her nose and Jack doesn't). The effects that anything might have on a person are also relative to that person (Jane is intrigued by quantum mechanics, but Jack isn't; loud music gives Jane a headache, but not Jack). Certain states of affairs, then, may be relative to individuals.

But the truth about those states of affairs isn't relative. Let's say that Jane loves white wine and Jack doesn't. On their first dinner date, Jane says, "I love white wine." Is Jane's statement true for her but not true for Jack? No. Her statement reports a fact about herself, and because she does love white wine, her statement is true. It's not true for her and false for Jack; it's just true. If Jack says, "I don't love white wine," his statement refers to a fact about himself and is also true for both of them. In each statement, the "I" refers to a different person, and so the statements correctly report on different states of affairs.

Now we can consider the question raised at the beginning of this chapter: Does realism lead to intolerance and arrogance? The answer

is no. The realist believes that when there's disagreement, it's theoretically possible to determine the truth through rational argument. After all, if there is a way that things are, then the only way to resolve disputes is by appeal to the way things are. But, as Trigg points out,

there is no reason why someone who believes that basic disagreement *can* admit of solution firstly should arrogantly assume that he himself has a monopoly of truth, and secondly should then make others accept his views by force. The mere fact that a disagreement is capable of solution does not of itself suggest which side is right. When two sides contradict each other, whether in the fields of morality, religion or any other area, each will recognize (if they are objectivists) that at least one side must be mistaken. There need be no contradiction between strongly believing that one is right and yet realizing that one could be wrong. Arrogance is not entailed by any objectivist theory.²⁷

True, realists might indeed be tempted to force their views on others. But so might relativists. Relativists might use force to get a person to agree with them because they have no other recourse. After all, relativists can't persuade anyone by appealing to objective standards or using rational argument. Since relativists don't believe that's possible, if they want to persuade someone, what is left besides force and manipulation?

Certainly, dogmatism isn't ruled out by relativism. It crops up among relativists just as it does among some realists. It's apparent, for example, among some people who have espoused New Age subjectivism. So relativism doesn't entail tolerance any more than realism entails intolerance.

Also, relativists who do embrace the virtue of tolerance once again get themselves stuck in contradictions. Is their statement that tolerance of other views is a good thing an objectively true statement or not? If it's objectively true, the relativists are denying their relativism because they regard something as objectively true. If their statement means that it's only relatively true that tolerance is a good thing, then they must admit that the opposite view could be equally justified. Consequently, relativists can't consistently claim that everyone should be tolerant.

There's no contradiction at all for the realist who says all of the following: Statements are objectively true or false; it's often difficult to tell whether statements are true or false; we may be mistaken about their truth or falsity; and because of our fallibility, we must be tolerant of those who have opposing views and uphold their right to disagree.

Understand this as well: Just because there is an objective reality (and thus objective truth) doesn't mean that people can't view this

Truth is a great flirt.
—FRANZ LISZT

*Truth does not do
so much good in the
world as the appear-
ance of it does evil.*
—DUC FRANÇOIS
DE LA
ROCHEFOUCAULD

objective reality differently. In fact, some people are tempted by relativism precisely because they are aware that there are different perspectives on reality—and plenty of disagreements about those perspectives. But it doesn't follow from the existence of differing perspectives and disagreements that there is no objective reality or objective truth.

STUDY QUESTIONS

1. Can an individual make a statement true simply by believing it to be true? Why or why not?
2. Can a society make a statement true simply by believing it to be true? Why or why not?
3. Can a statement be true in one conceptual scheme and false in another? Why or why not?
4. Consider this statement: No universal generalizations are true. Can this statement be true? Why or why not?
5. Is it reasonable to believe that everything we experience (including the people we meet) is a creation of our own minds? Why or why not?

EVALUATE THESE CLAIMS. ARE THEY REASONABLE? WHY OR WHY NOT?

1. Don't pick up that toad. Toads cause warts. Everyone knows that.
2. Recent polls indicate that 90 percent of Americans believe in angels. Therefore, angels must exist.
3. Millions of people use psychic hot lines. So there must be something to them.
4. The tax system in this country is unfair and ridiculous. Just ask anyone.
5. The people of Ireland have believed in leprechauns for centuries. Leprechauns must be real.

DISCUSSION QUESTIONS

1. A person can't make something true by simply believing it to be true. Can a person make something morally right by simply believing it to be right? Can a culture or society make something right by simply believing it to be right? Evaluate your answers to these questions by examining their implications.
2. Identify as many as possible of the different cultural or societal groups that you belong to. Is there any objective way to determine which of these groups is your real group? If so, which group is it? If not, what are the implications for social constructivism?
3. Suppose that two people have different beliefs about something they are looking at. Does it follow that they perceive it differently? Does it follow that they are perceiving different things? Is there any way to

tell which, if either, of these alternatives are correct? Explain your answers by means of specific examples.

FIELD PROBLEM

In June 1989, the prodemocracy movement in China had captured the attention of people all over the world. Thousands of students gathered in the famed Tiananmen Square to demand greater freedom and democratic reforms in the Chinese government. The government responded with a massive military crackdown on the dissidents in the square, wounding and killing several of them. People who believed in universal human rights (ethical objectivists) condemned the killings as a tragic, immoral act. People in the Chinese government who rejected the notion of universal human rights (ethical relativists) said that, according to the values of Chinese society, the crackdown was morally right.

Assignment: Pretend for a moment that you are a Chinese official who uses moral relativism to defend the crackdown. In one paragraph, state your case. Then take the other side and pretend that you are a citizen of a Western nation who uses the concept of universal moral rights to condemn the crackdown. In one paragraph, present your argument. Compare the arguments. Which do you think is strongest?

CRITICAL READING AND WRITING

- I. Read the passage below and answer the following questions:
 1. What is the claim being made in this passage?
 2. Are any reasons offered to support the claim?
 3. Are morphic fields physically possible? Why or why not?
 4. Would the existence of morphic fields lend support to the notion that reality is socially constructed? Why or why not?
 5. What kind of evidence would convince you that morphic fields exist?
- II. Write a 200-word critique of this passage, focusing on how well its claim is supported by good reasons and why you think accepting the claim would be reasonable (or unreasonable).

Passage 3

Related to the hundredth-monkey idea is the extraordinary theory of "morphic resonance" put forth by biologist and author Rupert Sheldrake. His notion is that all organisms and structures in the universe have the form (morph) that they do because they exist in "morphic fields" that shape them. These energy fields contain the form or pattern of objects, with every type of object being determined by its own field.

According to Sheldrake, the behavior of animals and people also creates morphic fields, which in turn shape future behavior. Thus if you teach mice in London to navigate a maze, the morphic field for the species changes, and suddenly mice in Paris can navigate the same maze much easier. "Within the

present century," he says, "it should have become progressively easier to learn to ride a bicycle, drive a car, play the piano, to use a typewriter, owing to the cumulative morphic resonance from the large number of people who have already acquired these skills."

Sheldrake cites several phenomena that he says are best explained by his theory of morphic resonance. These include alleged instances of spontaneous animal learning (similar to the hundredth-monkey phenomenon), cases in which humans seem to learn something faster after other humans learn it first, and the ability of some organisms (such as flatworms) to regenerate parts and repair physical damage.

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